Cordilleras Mental Health Center
Redwood City, California

Biological Constraints Analysis

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This Biological Constraints Analysis was prepared by TRA Environmental Sciences for the San Mateo County Department of Facilities Planning, Design & Construction. This report identifies sensitive biological resources and permit and regulatory compliance requirements related to redevelopment of the existing Cordilleras Community Treatment Facility. It will be used by San Mateo County in considering project design, costs and schedule as part of a feasibility analysis for the project.

PROJECT OVERVIEW

The proposed Cordilleras Mental Health Center replacement project will be developed at the current site of the Cordilleras Mental Health Center, situated southwest of Pulgas Ridge Open Space Preserve and northwest of Edgewood Canyon Road at 200 Edmonds Road, in San Mateo County, California. The project site also contains a fire station and the Canyon Oaks Youth Facility for Mental Health. Although the existing facility will be redeveloped, a new footprint is proposed that will extend into natural habitat adjacent to Cordilleras Creek upstream of the existing facility.

The Cordilleras Mental Health Center facilities are in a multiple story building which was built in 1949 and requires updating for structural needs, mental health treatment methods, and federal regulations for reimbursement. The concept for the new facility is to extend the existing development footprint toward the west along Cordilleras Creek, changing the feel from a hospital to a residential care facility by replacing the multiple story building with several smaller buildings. The creek is undergrounded in culverts under the existing site, but natural portions of the creek extend to the west and the east of the current facility, and a tributary that is also partially undergrounded enters the creek from the north. Mature oak/bay woodland surrounds the site and there are specimen landscape trees on the grounds that will likely be preserved. In addition to new mental health facilities, the preliminary project design includes a facility community center, recreation yard, parking, and a new fire road and retaining wall. The project may result in 87,500 square feet of new construction.

SUMMARY OF RESULTS

The Biological Constraints Analysis addresses potential impacts to special-status species, and regulatory and mitigation requirements that could affect decisions about proceeding with the project. The special-status species in the region include federal and state listed species, as well as state species of special concern. The project site contains waters of the state and United States, namely Cordilleras Creek and its adjacent riparian zone, but does not contain freshwater emergent wetlands. Cordilleras Creek has a well-defined channel that currently flows intermittently, and based on observations of vegetation and woodrat houses in the creek channel, has possibly not had high flows for several years.

The project will impact San Francisco dusky-footed woodrat, a California species of special concern, and will require mitigation to address those impacts. In the case of this species the mitigation can be provided on the project site. The project may impact San Francisco collinsia, a CNPS 1B.2 plant that occurs on the property.

The project has a very low potential to impact California red-legged frog, San Francisco garter snake, and western pond turtle which are known to occur on the other side of I-280 from the project. These species are not expected to occur on the project site, but best management practices are recommended to avoid impacts. Without state and federal authorization (a lengthy

process), any discovery of these species during construction would halt the project until state and federal wildlife agencies are consulted and concur with how to move forward.

The project will impact the riparian zone of Cordilleras Creek, but will not directly impact the creek bed, bank or channel.

The project may remove trees that are protected by local zoning regulations, and should have a tree removal and replacement plan to address the removal of trees with a diameter at breast height of 17 inches or more (circumference 55 inches) for local regulations and 4 inches or more for California Department of Fish and Wildlife recommendations. The agencies will require that several new trees be planted for each tree that is removed, and this may require finding offsite locations within the watershed for tree planting. It will also require a 5-10 year monitoring period and replacement of dead trees if necessary.

The project will require the following permits/authorizations:

- Lake and Streambed Alteration Agreement for effects on Cordilleras Creek and its tributaries;
- U.S. Army Corps of Engineers permit under Section 404 of the Clean Water Act for replacement of culverts and if any fill is proposed in Cordilleras Creek;
- California Regional Water Quality Control Board Water Quality Certification under Section 401 of the federal Clean Water Act, for replacement of culverts and if any fill is proposed in Cordilleras Creek.

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1.0 Introduction and Purpose

1.1 Project Location and Setting

The County of San Mateo Facilities, Planning, Design and Construction Department proposes to demolish the existing multiple-story Cordilleras Mental Health Center (CMHC) and replace it with six smaller buildings. The project site is situated southwest of Pulgas Ridge Open Space Preserve and northwest of Edgewood Canyon Road at 200 Edmonds Road, in Redwood City, California (Figure 1 Regional Location, and Figure 2 Site Vicinity Location). The CMHC facilities are in a building which was constructed in 1949 which must be replaced in order to address safety, current mental health treatment methods, and to meet federal regulations for reimbursement. To accommodate several new, smaller structures the existing footprint will be extended upstream along the south side of Cordilleras Creek. An existing access road along the north side of Cordilleras Creek will be incorporated into the project as a walking path.

The 20.6-acre project site (APN 050-470-050) is located approximately 1,700 feet west of the intersection of Edgewood Road and Crestview Drive in Redwood City (Figure 1 Regional Location) and is surrounded on all sides by a mosaic of undeveloped oak/bay woodland, coastal scrub and grassland habitats located in Redwood City and unincorporated San Mateo County. A fire station is located adjacent to the south side of the CHMC facility, and west of the fire station the Canyon Oaks Youth Facility is located adjacent to a tributary to Cordilleras Creek. A water storage tank is situated approximate 450 feet northwest of the CMHC facility. The project site is situated approximately 0.5 miles northeast of Interstate 280, is north of Edgewood Natural Preserve and south of Pulgas Ridge Open Space, and is owned by the County of San Mateo. The parcel is zoned as Resource Management (RM). It is located on the U.S. Geological Survey Woodside Quadrangle.

The CHMC facility is located in the base of a canyon on gently sloping topography (285 msl to 315 msl across about 500 ft distance) (Figure 3). The topography of the rest of the parcel is hilly, ranging from 280 ft msl on the entrance drive to 410 ft msl at the water tank above the existing buildings. The facility built in 1949 was sited in the channel of Cordilleras Creek, and creek flows upstream, as well as two tributaries in the area of the facility are currently diverted around the facility through a culvert system and directed back to Cordilleras Creek downstream of the buildings. Changes to the creek or culvert system on the site other than culvert repair/replacement are not proposed.

The County has developed a feasibility site plan for the new facility (Figure 4). The design involves replacing the current building with five single story pinwheel-shaped buildings connected by courtyards. Three of these would be located on the existing grounds, and two would be placed along the creek upstream of the existing grounds. A new community center/support building would be built north of the existing facility where the access road to the water tank currently exists, and a recreation yard and garden would be located in between in areas that are already developed. The two buildings that result in an extension of the project footprint along the creek will also be served by a service/fire access road and turn around, and part of this road will require a retaining wall. The project will be designed with LEED measures, including solar panels on the buildings. The project will be required to meet C-3 standards, so that any additional runoff is retained on site. The use of the site as a mental health facility limits the feasibility of daylighting the creek and using it as a landscape feature in the proposed recreation yard.

1.2 Purpose of this Report

The purpose of this biological constraints analysis is to identify sensitive biological resources that could be affected by development of the property, the potential regulatory requirements related to biological resources, avoidance and minimization measures, and whether species-specific surveys will be required. The constraints analysis also addresses the California Environmental Quality Act Guidelines Initial Study Checklist questions related to biology. These responses are provided to the extent feasible based on the preliminary site plan.

2.0 Methods

This chapter describes the research and field methods used to determine biological resources present and regulatory issues.

2.1 Database Searches

A nine quad search was completed for the California Natural Diversity Database, the California Native Plant Society Inventory of Rare and Endangered Plants. The U.S. Fish and Wildlife Service website was queried for species known to occur on the Woodside Quadrangle.

2.2 Agency Consultation

The U.S. Fish and Wildlife Service website was consulted regarding the species of concern. TRA met Suzanne DeLeon of the California Department of Fish and Wildlife at the project site on May 22, 2014 to discuss the proposed projects and wildlife resource issues of concern.

2.3 Site Visits

The project site was visited in April, May and June 2014 to identify plant species and jurisdictional waters.

3.0 Biological Resources

3.1 Vegetation and Habitat Types

The Property supports five habitat types, described below in more detail. The habitat types are developed, mixed live oak woodland, creek channel/valley foothill riparian, annual grassland, and coastal sage scrub (Figure 3). The southern portion of the site is developed with the existing facility, the fire station, and the youth facility. Mixed oak woodland habitat makes up the majority of the non-developed portions of the site. Openings in the woodland canopy support annual grassland or coastal scrub habitat. Cordilleras Creek crosses the property in a west to east direction, discharging to a drop inlet structure at the northwest corner of the campus. A tributary to Cordilleras Creek flows from the north, parallel to the road that is used to access the water tank. This tributary is culverted about 75 feet upslope of the access road that borders the north side of the mental health center to where it enters Cordilleras Creek immediately downstream of the project. The culvert has collapsed in two locations near the outlet to Cordilleras Creek.

The developed portions of the site are landscaped with a variety of common native and non-native ornamentals including redwood (*Sequoia sempervirens*), cedar (*Cedrus* sp.), magnolia (*Magnolia* sp.), juniper (*Juniperus* sp.), tree of heaven (*Ailanthus altissima*), ornamental plum (*Prunus* sp.), and Monterey pine (*Pinus radiata*).

The mixed live oak woodland habitat is dominated by a dense canopy of coast live oak (*Quercus agrifolia*) and California bay (*Umbellularia californica*) with an understory of shrubs such as poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), and Himalayan blackberry (*R. discolor*), ferns such as western sword fern (*Polystichum munitum*), herbs such as bedstraw (*Galium californicum ssp. californicum*), hedge nettle (*Stachys ajugoides* var. *rigida*), and annual grasses and forbs including wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*). California buckeye (*Aesculus californica*), coyote brush (*Baccharis pilularis*), and blue elderberry (*Sambucus nigra* subsp. *caerulea*) also occur but are not dominant.

Riparian habitat is associated with the main channel of Cordilleras Creek. The creek was dry at the time of the site visit with no standing water or saturated conditions, and contained a stand of grassland dominated by Italian thistle at the inlet to the culvert under the existing development, as well as several well developed woodrat houses above ordinary high water but within the banks of the creek, indicating that there may not have been significant flows in the creek for a few years. The riparian canopy is dominated by California bay, with scattered coast live oak and big leaf maple (*Acer macrophyllum*). California blackberry was the dominant vegetation type on the banks of the creek with Italian thistle, poison hemlock (*Conium maculatum*) and poison oak also abundant. Other species that were present but less common in the riparian habitat were mugwort (*Artemisia vulgaris*), bedstraw, coastal wood fern (*Dryopteris arguta*), French broom (*Genista monspessulana*), Spanish broom (*Spartium junceum*), and wild cucumber (*Marah* sp.).

There is an area on the south side of the creek near the culvert upstream of the existing development that was filled in the past. This area is dominated by weedy species, including poison hemlock, Italian thistle, and hedge parsley (*Torilis arvensis*).

Coastal sage scrub occurs in openings in the mixed oak woodland. These areas are dominated by species adapted to steep slopes and dry conditions. The dominant plant species include with California sage (*Artemisia californica*), chemise (*Adenostema fasciculatum*), coyote brush (*Baccharis pilularis*), and sticky monkey flower (*Mimulus aurantiacus*).

One small patch of grassland occurs in the area where the facility's community center is proposed to be located. The grassland was observed to contain the following native and non-native species in June 2014: needlegrass (*Stipa* or *Nassella* sp.), mule ears (*Wyethia glabra*), oatgrass (*Avena fatua*), Ithuriels' spear (*Triteleia laxa*) and ripgut brome.

3.2 Common Wildlife and Wildlife Corridors

Developed areas of the site may provide breeding and foraging habitat for a variety of common urban-adapted wildlife species. Manmade structures are often used as nesting substrate by such species as black phoebe (*Sayornis nigricans*), and house finch (*Carpodacus mexicanus*), and a variety of bat species are known to take advantage of openings in buildings to gain access to roosting cavities. Landscaping is frequently used as breeding and foraging habitat for urban adapted passerine bird species. Mammals such as raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and California vole (*Microtus californicus*) are likely to occur in the surrounding natural habitats and could also occur in developed areas of the site.

The mixed live oak woodland is occupied by a wide variety of bird species, and several were heard vocalizing during the site visit. These species are expected to breed and forage in this habitat including spotted towhee (*Pipilo maculatus*), oak titmouse (*Baeolophus inornatus*), Pacific slope flycatcher (*Empidonax difficilis*), Stellar's jay (*Cyanocitta stelleri*), chestnut-backed chickadee (*Poecile rufescens*), and bushtit (*Psaltriparus minimus*).

Mammals use all habitats on the property. Black-tailed deer (*Odocoileus hemionus*), a fresh kill of a fawn (probably by coyote), and the stick houses of San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) were found during site surveys. Coyote, raccoon, Virginia opossum, eastern grey squirrel (*Sciurus carolinensis*), and brush rabbit (*Sylvigalus bachmani*) were not seen during the site visit, but are expected to occur in the habitats available on site. Mountain lion could also occur, but is expected to be an infrequent visitor due to the proximity to human activity and the barrier created by Interstate 280 (I-280), which lies between the site and significant areas of open space in the Santa Cruz Mountains west of I-280.

Birds that use the site for forage and breeding habitat include spotted towhee, Pacific slope flycatcher, American robin (*Turdus migratorius*), western scrub jay (*Aphelocoma californica*), red-shouldered hawk (*Buteo lineatus*), Cooper's hawk (*Accipiter cooperii*), bushtit, and California towhee (*Melozone crissalis*), which were observed or were heard vocalizing during site surveys. Amphibian species commonly found in riparian habitats include California newt (*Taricha torosa*), western toad (*Anaxyrus boreas*), and Pacific chorus frog (*Pseudacris regilla*), however none were observed during site visits and the creek channel was dry.

Patches of annual grassland habitat within the project area are limited in size and isolated from other large expanses of similar habitat. Black phoebe, California towhee, Bewick's wren (*Thryomanes bewickii*), and lesser goldfinch (*Carduelis psaltria*) were all observed foraging in the annual grassland habitat. White-throated swift were heard vocalizing overhead and are presumed to use openings in the woodland canopy to forage for insects. Black-tailed deer, observed during the survey likely use these grassy areas as foraging habitat, along with brush rabbit, Botta's pocket gopher (*Thomomys bottae*), and California vole. Common reptile species that were not observed but are found in grassland habitats include western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), and southern alligator lizard (*Elgaria multicarinata*).

Coastal sage scrub provides low, dense cover that is good foraging, breeding and migratory habitat for California quail (*Callipepla californica*), California towhee, white-crowned sparrow

(*Zonotrichia leucophrys*), wrentit (*Chamaea fasciata*), brush rabbit, raccoon, and black-tailed deer.

The property lies immediately north of Edgewood Road, and is slightly east of I-280. The Edgewood Natural Preserve occurs to the south, on the other side of Edgewood Road, but is separated from the property by the road and a steep roadcut. The Pulgas Ridge open space preserve surrounds the property on the west, north and east sides. While the main building is fenced, the property is generally open to wildlife movement. There are drainages and unpaved roadways that may facilitate wildlife movement, but there are no obvious or specific wildlife corridors.

3.3 Special-status Species

A summary of the special-status species that are recorded to occur within the Woodside Quadrangle and the nine surrounding quadrangles is provided in Appendix A. Each species was evaluated for the likelihood of presence within the project footprint due to habitat suitability and proximity to the project. The descriptions provided in this section (below) are for species that are of potential concern for this project.

One mammal and one plant species of concern were confirmed present on the property during site visits in May and June 2014. These are the San Francisco dusky-footed woodrat (California Species of Special Concern), and San Francisco collinsia (CNPS/CRPR 1.B.2). The project site contains potential migratory habitat for California red-legged frog (Federal Threatened, California Species of Special Concern) and San Francisco garter snake (Federal Endangered, California Endangered, California Fully Protected), however the likelihood of presence is judged to be very low. The project site contains suitable habitat for Western leatherwood (CNPS list 1B.2), but the project footprint does not contain Western leatherwood, based on a survey conducted in early June 2014 when the shrub would have been evident. The project site also contains nesting bird habitat and bat roosting habitat, including habitat for protected raptor and bat species.

California Red-legged Frog (CRF)

The CRF (*Rana draytonii*) is endemic to California and Baja California, Mexico, at elevations ranging from sea level to approximately 1,500 meters (5,000 feet). Records of CRF are known from Riverside County to Mendocino County along the Coast Range; from Calaveras County to Butte County in the Sierra Nevada; and in Baja California, Mexico. California red-legged frogs are still locally abundant within portions of the San Francisco Bay area and the central coast. Within the remaining distribution of the species, only isolated populations have been documented in the Sierra Nevada, northern Coast, and northern Transverse ranges. The species is believed to be extirpated from the southern Transverse and Peninsular ranges, but is still present in Baja California, Mexico (USFWS 2010b).

As a species, California red-legged frog is currently threatened by human activities: degradation and loss of its habitat through urbanization, mining, improper management of grazing, recreation, invasion of nonnative plants, impoundments, water diversions, degraded water quality and introduced predators. These factors have resulted in the isolation and fragmentation of habitats within many watersheds. This often prevents dispersal between sub-populations. The fragmentation of existing habitat, and the continued colonization of existing habitat by nonnative species, may represent the most significant current threats to CRLF (USFWS 2010b).

The California red-legged frog is the largest native frog in the western United States, ranging from 4 to 13 centimeters long (1.5 to 5 inches). The abdomen and hind legs of adults are

reddish. The back has small black flecks and larger irregular dark blotches. These have indistinct outlines on a brown, gray, olive, or reddish background color. The spots on the frogs' backs usually have light centers. Lateral folds are prominent on the back. Larvae (tadpoles) range from 0.6 to 3 inches in length, and the background color of the body is dark brown and yellow with darker spots (USFWS 2010b).

California red-legged frog occupies a fairly distinct habitat, combining both specific aquatic and riparian components. Adults need dense, shrubby or emergent riparian vegetation closely associated with deep (greater than 2 1/3-foot deep) still or slow moving water. The largest densities of CRF are associated with deepwater pools with dense stands of overhanging willows and an intermixed fringe of cattails. Well-vegetated terrestrial areas within the riparian corridor may provide important sheltering habitat during winter. California red-legged frogs estivate (enter a dormant state during summer or dry weather) in small mammal burrows and moist leaf litter. They have been found up to 100 feet from water in adjacent dense riparian vegetation (USFWS 2010b). Frogs migrate between upland habitat and breeding habitat in no particular directional order (ie, not necessarily along creek channels), and may move as far as 1.7 mile (Bulger 2003).

California red-legged frogs breed from November through March with earlier breeding records occurring in southern localities (USFWS 2010b). The diet of CRF is highly variable. Larvae probably eat algae. Invertebrates are the most common food items of adult frogs. Vertebrates, such as Pacific tree frogs and California mice, are frequently eaten by larger frogs. Juvenile frogs are active both during the day and at night, whereas adult frogs are largely nocturnal. Feeding activity likely occurs along the shoreline and on the surface of the water (USFWS 2010b).

The nearest CRF occurrences recorded in the CNDDB are reported from 2007 and include sites at the southern end of the Crystal Springs Reservoir and along Canada Road south of the intersection with Edgewood Road. These specific sites are 1.6 to 2 miles from the project, and are on the opposite side of a 6 lane freeway with median, however it is assumed that CRF occur elsewhere in the Crystal Springs watershed and could occur in drainages within 0.5 miles from the project. No ponds occur on the project site or on adjacent properties. Cordilleras Creek and nearby tributaries are intermittent streams (USGS Woodside quadrangle).

San Francisco Garter Snake (SFGS)

Historically, the SFGS occurred in scattered wetland areas on the San Francisco Peninsula from approximately the San Francisco County line south along the eastern and western bases of the Santa Cruz Mountains, at least to the Upper Crystal Springs Reservoir, and along the coast south to Año Nuevo Point, San Mateo County, and Waddell Creek, Santa Cruz County. Currently, although the geographical distribution may remain the same, reliable information regarding specific locations and population status is not available. Much of the remaining suitable habitat is located on private property that has not been surveyed for the presence of the snake. Many locations that previously had healthy populations of SFGS are now in decline for the reasons described below (USFWS 2007).

Many of the threats that led to the listing of SFGS in 1967 continue to impact the species. These include loss of habitat from agricultural, commercial and urban development and collection by reptile fanciers and breeders. These historical threats to the species remain, but there are now additional threats to the species, such as the documented decline of the CRF (an essential prey species) and the introduction of bullfrogs (*Rana catesbeiana*) into SFGS habitat. Bullfrogs are capable of preying on both SFGS and CRF. Extirpation of CRF in SFGS habitat is likely to cause localized extinction of the snake (USFWS 2007).

San Francisco garter snake is a slender, colorful snake in the Colubridae family, which includes most of the species of snakes found in the western United States. This subspecies has a burnt orange head, greenish-yellow dorsal stripe edged in black, bordered by a red stripe, which may be continuous or broken with black blotches, and then a black stripe. The belly color varies from greenish-blue to blue. Large adults can reach 3 feet or more in length (USFWS 2007).

The snakes' preferred habitat is a densely vegetated pond near an open hillside where they can sun themselves, feed, and find cover in rodent burrows; however, considerably less ideal habitats can be successfully occupied. Temporary ponds and other seasonal freshwater bodies are also used. Emergent and bankside vegetation such as cattails (*Typha* spp.), bulrushes (*Scirpus* spp.) and spike rushes (*Juncus* spp. and *Eleocharis* spp.) apparently are preferred and used for cover. The area between stream and pond habitats and grasslands or bank sides is used for basking, while nearby dense vegetation or water often provide escape cover. Snakes also use floating algal or rush mats, if available (USFWS 2007).

Adult snakes sometimes estivate (enter a dormant state) in rodent burrows during summer months when ponds dry. On the coast, snakes hibernate during the winter, but further inland, if the weather is suitable, snakes may be active year-round. Recent studies have documented SFGS movement over several hundred yards away from wetlands to hibernate in upland small mammal burrows; the Center for Biological Diversity reports a migration distance of 1 km (0.62 mile). Although primarily active during the day, captive snakes housed in an outside enclosure were observed foraging after dark on warm evenings (USFWS 2007).

San Francisco garter snakes forage extensively in aquatic habitats. Adult snakes feed primarily on CRF. They may also feed on juvenile bullfrogs, but they are unable to feed on the larger adults. Adult bullfrogs likely prey on smaller SFGS and may be a contributing factor in their decline. Newborn and juvenile SFGS depend heavily upon Pacific treefrogs as prey. If newly metamorphosed Pacific treefrogs are not available, the young may not survive (USFWS 2007).

Females give birth to live young from June through September, with litters averaging 16 newborns. The snakes are extremely shy, difficult to locate and capture, and quick to flee to water or cover when disturbed (USFWS 2007).

The nearest recorded locations of San Francisco garter snake to the Cordilleras site are in the Crystal Springs watershed, over 0.6 mile from the project. There are no ponds or suitable breeding habitat for the garter snake on the Cordilleras property or in the adjacent Pulgas Ridge Open Space Preserve.

Western Pond Turtle

Western pond turtle, a California species of special concern, is the only turtle native to California (CDFG 2008). It was found historically in most Pacific slope drainages between the Oregon and Mexican borders. It is still found in suitable habitats west of the Sierra–Cascade crest. Elevation range is from near sea level to approximately 4,700 feet (1,430 meters) (Jennings and Hayes 1994).

Western pond turtle is associated with a variety of aquatic habitats, both permanent and intermittent. The name western “pond” turtle is something of a misnomer, as ponds are relatively scarce throughout most of the range of this species, and the turtles are more often associated with rivers and streams. They are usually rare or absent in reservoirs, impoundments, canals, or other bodies of water heavily altered by humans. Western pond turtle inhabits some of the larger rivers within its range (e.g., the Sacramento, Klamath, and Willamette), but is usually restricted to areas near the banks or in adjacent backwater habitats where the current is

relatively slow and abundant emergent basking sites and refugia exist. Western pond turtle may be found in slower moving streams where emergent basking sites are available, but generally avoids heavily shaded areas. In some areas of California, intermittent streams hold sizeable populations. Turtles are also known to use ephemeral pools. They tolerate brackish water, and along the California coast they often coexist with brackish water fish species such as sculpins (*Leptocottus armatus* and *Cottus* sp.) (Hayes *et al*. 1999).

The Western pond turtle lives up to 50 years, but reproduces relatively infrequently. Mature turtles weigh up to two pounds and measure up to 8 inches. Females take an average of eight to 10 years to reach sexual maturity and when mature, lay only 6 to 10 eggs a year. As a result, pond turtle populations can decline rapidly with the loss of only a few adults. Eggs are laid from March to August, depending on local conditions, and incubation lasts from 73 to 80 days. Females lay their eggs in underground nests on land. Western pond turtle nests have been found as far as 435 yards from a stream (Reese and Welsh 1997) in open sunny areas on hill slopes, generally with a south to southwest facing aspect. Nest sites typically occur in open areas dominated by grasses or herbaceous annuals on dry, well-drained soils with high clay/silt content and low (less than 15-degree) slope (Holland 1994). There is some indication that most nesting excursions occur at night (Rathbun *et al*. 2002). Western pond turtle also moves into upland slopes while overwintering or during periods when aquatic habitats become unsuitable (i.e., dry).

Western pond turtle is omnivorous and feeds on aquatic plant material, aquatic invertebrates, fishes, frogs, and even carrion (CDFG 2008). Common predators of nests, nested hatchlings, and adult turtles in the wild include raccoons, skunks, and coyotes; although the largest threats western pond turtle face presently are the predation of hatchlings by introduced, non-native bullfrogs, and the loss of habitat due to urbanization.

Western pond turtle is known to occur at the Crystal Springs Reservoir within about two miles of the project site. Cordilleras Creek is an intermittent creek that is wooded and heavily shaded on the project site and upstream of the project site. There are no ponds in the Pulgas Ridge Open Space Preserve or the Edgewood Natural Preserve.

San Francisco Dusky-footed Woodrat (SFDW)

The San Francisco dusky-footed woodrat is a California Species of Special Concern. It occurs from the Golden Gate to just inside the Santa Cruz County line and also in the east bay. It is associated with riparian, oak woodland and redwood forest. The San Francisco dusky-footed woodrat is one of 11 subspecies of dusky-footed woodrat that live in California and the arid west. San Francisco dusky-footed woodrat is a medium-sized rodent, about the size of an adult rat, with a body around 7 inches long, nose to rump, and a furred tail. Dusky-footed woodrats are relatively common and widespread in California, but their complex social structure makes them particularly vulnerable to disturbance.

San Francisco dusky-footed woodrat build mounded stick houses that may range in size from 3 to 8 feet across at the base and as much as 6 feet tall, and they tend to live in colonies of 3 to 15 or more houses. The houses can be quite complex inside, with multiple chambers for general living, nesting, latrine use, food storage, and other activities. The availability of suitably-sized sticks may limit the number of woodrat houses.

Each house is occupied by a single adult; adult females share the house with their litters for a few months until the young disperse to nearby nests. Adult females live in the same house until they die, when the house is taken over by one of the female offspring. In this manner houses may be occupied and maintained by the same family for decades. Individual houses may persist

for 20 to 30 years. Reptiles, amphibians, small mammals, and invertebrates are often commensal with the woodrats, sharing the houses for shelter. San Francisco dusky-footed woodrat houses provide protection from temperature and moisture extremes and allow animals that might not otherwise tolerate local conditions to live there, increasing the biotic diversity.

San Francisco dusky-footed woodrat is an herbivore and eats grasses, leaves, fresh fruits, small bulbs, bark, and flowers (English 1923). San Francisco dusky-footed woodrat also stores dry foods like hazel nuts and acorns (English 1923). San Francisco dusky-footed woodrat is very picky about what food it eats, but will model its diet after other members of its species (English 1923). Mammals are typically classified as generalists or specialists based on their ability to metabolize specific plant toxins on a species level. However, for the San Francisco dusky footed woodrat, it may be possible that populations specialize based upon the most abundant food source. In the laboratory, researchers found that woodrats from a predominantly juniper-based habitat preferred to eat juniper, and woodrats from a predominantly cedar-based habitat preferred to eat cedar, even when many different kinds of food were present (McEachern et al 2006).

San Francisco dusky footed woodrat is a popular prey item for a number of predatory species. Predators of San Francisco dusk- footed woodrat include hawks, owls, bobcat, coyote, long-tailed weasel and many others. There are number parasites that use San Francisco dusky footed woodrat as a host including lice, fleas, and ticks.

Several stick houses built and used by SFDW are present within the project footprint and adjacent areas.

Bats

Two special-status bat species could occur in the project area, including pallid bat and Townsend's big-eared bat. The trees within the project footprint provide cavities that could be used by bats for roosting, including temporary roosts or maternal roosts. The buildings that are proposed to be removed for the project could also provide roosting habitat for bats.

The pallid bat is found in a variety of habitats including all types of woodland especially oak savanna, grassland, riparian areas and wetlands, orchards, vineyards, and irrigated cropland if appropriate roosting sites are available. A very social bat, the pallid bat occupies a wide variety of habitats throughout California, including grasslands, shrublands, woodlands, and forests. The species is most common in open, dry areas with rocky areas necessary for roosting. It feeds on a variety of insects and spiders. There is moderate potential for pallid bats to use the project site for roosting.

The Townsend's big-eared bat is found throughout most of the state in many habitat types, but its distribution is patchy and is strongly correlated with available roosting habitat, including caves or man-made structures that are cave-like. Roost requirements are fairly restrictive, with temperature being critical. It forages in edge habitats along streams in a variety of woodland types. The project site could provide foraging habitat for Townsend's big-eared bat if it occurs in the area.

3.4 Heritage or Ordinance Trees

The riparian habitat and oak woodland mapped on the property contain mature trees. The project footprint could impact redwood, live oak, bay and ornamental trees that meet the RM district criteria of 55-inches circumference (17 inches DBH) and require avoidance or mitigation through planting. A tree survey was not conducted for this analysis.

4.0 Regulatory Setting

Biological resources in California are protected under federal, state and local laws and regulations. The laws that pertain to the biological resources found in the area of the CMHC include the following:

- U.S. Endangered Species Act (protecting species listed by the federal government as threatened or endangered);
- U.S. Migratory Bird Treaty Act (protecting most U.S. birds);
- U.S. Bald and Golden Eagle Protection Act (protecting these eagles);
- U.S. Clean Water Act (protecting water quality and wetland habitat);
- California Environmental Quality Act (mitigating the environmental effects of human-initiated development);
- California Endangered Species Act (protecting species listed by the state as rare, threatened, or endangered under Fish and Game Code 2050 et seq);
- California Department of Fish and Game Code (Sections 1600-1607 that protect stream bed, bank and channel; 3500-3516 that protect nesting birds and fully-protected birds; 4700 and 5050 that protect fully-protected mammals, reptiles and amphibians).
- The Significant Tree Ordinance of San Mateo County.

These are described below, with a statement as to how the law or regulation pertains to this specific project.

4.1 Federal

4.1.1 Federal Endangered Species Act

The United States Endangered Species Act (ESA) is administered by the United States Fish and Wildlife Service (USFWS) for all species but fish and NOAA Fisheries for fish species. The federal ESA provides protection for species included on the endangered species list (known as “listed species”). In particular, the federal act prohibits "take". "Take" is defined by the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a federally listed, endangered species of wildlife, or to attempt to engage in any such conduct." Federal regulations also define take to include the incidental destruction of animals in the course of an otherwise lawful activity, such as habitat loss due to development. Under those rules the definition of take includes significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR Section 17.3).

Take may be allowed under a permit by either Section 7 or Section 10(a) of the ESA. The permit is issued under Section 7 if another federal agency funds or issues a permit for the project (U.S. Army Corps of Engineers for example). The permit is issued under Section 10(a) if there is no federal involvement in the project.

4.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds.

Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not.

In short, under the Migratory Bird Treaty Act it is illegal to remove vegetation containing nests that are in active use, since this could result in killing a bird or destroying an egg. This would also be a violation of CDFG code (see section 4.2.4, below).

4.1.3 Bald and Golden Eagle Protection Act

It is unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, or their parts, products, nests, or eggs. “Take” includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing. Exceptions may be granted by the USFWS for scientific or exhibition use, and for cultural use by Native Americans. However, no permits may be issued for import, export, or commercial activities involving eagles.

4.1.4 Clean Water Act

The Federal Clean Water Act is the primary federal law regulating water quality. The implementation of the Clean Water Act is the responsibility of the U.S. Environmental Protection Agency (EPA). That agency depends on other agencies, such as the individual states and the U.S. Army Corps of Engineers (USACE), to assist in implementing the Act. The objective of the Clean Water Act is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Section 404 and 401 apply to project activities that would impact waters of the U.S. (creeks, ponds, wetlands, etc). The USACE enforces Section 404 of the Clean Water Act and the California State Water Resources Control Board enforces section 401 (see below under State).

Clean Water Act, Section 404: As part of its mandate under the Clean Water Act, the EPA regulates the discharge of dredged or fill material into “Waters of the U.S.” under Section 404 of the Act. “Waters of the U.S." include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high water marks. The EPA also regulates excavation and changes in drainage. The discharge of dredged or fill material into waters of the U.S. is prohibited under the Clean Water Act except when it is in compliance with Section 404 of the Act. Enforcement authority for Section 404 was given to the USACE, which it accomplishes under its regulatory branch.

4.2 State

4.2.1 State Porter Cologne Act and State and Federal Clean Water Act Section 401

California Porter-Cologne Water Quality Control Act. California’s Porter Cologne Water Quality Control Act (Porter-Cologne Act) regulates Waters of the State, which includes “any surface water or groundwater, including saline waters, within the boundaries of the State”. Cordilleras Creek and the tributaries to it are Waters of the State, as is any groundwater on the site. The California regional water quality control boards (RWQCB) establish Waste Discharge Requirements (WDRs) pursuant to the Porter-Cologne Act for activities involving discharges such as those to land, groundwater, or from diffused sources. Such activities require a complete Report of Waste Discharge with the appropriate RWQCB to obtain WDRs. The project is in the San Francisco Bay RWQCB and is not anticipated to involve discharges to land or groundwater; thus, WDRs are unlikely to be required.

Clean Water Act, Section 401. Any applicant for a Federal permit to impact waters of the U.S. under Section 404 of the Clean Water Act, including Nationwide Permits where pre-construction notification is required, must also provide to the USACE a certification from the State of California. The "401 Certification" is provided by the State Water Resources Control Board through the local Regional Water Quality Control Board (RWQCB).

The State Water Resources Control Board sets statewide policy related to water quality, coordinates and supports regional water quality control boards, and reviews petitions that contest regional board actions. The RWQCB sets water quality standards, waste discharge requirements for its region, determines compliance with those standards, and takes enforcement action. The RWQCB issues and enforces permits for discharge of treated water, landfills, stormwater runoff, filling of any surface waters or wetlands, dredging, agricultural activities and wastewater recycling.

The RWQCB recommends the application be made at the same time that any applications are provided to other agencies, such as the USACE, USFWS, or NOAA Fisheries. Application is not final until completion of environmental review under the California Environmental Quality Act (i.e., CEQA certification). The application to the RWQCB is similar to the pre-construction notification that is required by the USACE (see discussion of Section 404, below). It must include a description of the habitat that is being impacted, a description of how the impact is proposed to be minimized and proposed mitigation measures with goals, schedules, and performance standards. Mitigation must include a replacement of functions and values, and replacement of wetland at a minimum ratio of 2:1, or twice as many acres of wetlands provided as are removed. The RWQCB looks for mitigation that is on site and in-kind, with functions and values as good as or better than the water-based habitat that is being removed.

4.2.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA; Public Resources Code Sections 21000 et. seq.) requires public agencies to review activities which may affect the quality of the environment so that consideration is given to preventing damage to the environment. When a lead agency issues a permit for development that could affect the environment, it must disclose the potential environmental effects of the project. This is done with an "Initial Study and Negative Declaration" (or Mitigated Negative Declaration) or with an "Environmental Impact Report". Certain classes of projects are exempt from detailed analysis under CEQA.

Under the CEQA Guidelines (Title 14 C.C.R. Sections 15000 et. seq.), Section 15303, single-family dwellings usually qualify as a Class 3 categorical exemption. Minor grading and landscaping usually qualifies as a Class 4 categorical exemption. However, under CEQA Guidelines Section 15300.2, there are exceptions to allowing Class 3 and 4 categorical exemptions. If the project is located in a sensitive environment, an ordinarily insignificant project may actually have significant effects. Thus, under the Guidelines a project is not categorically exempt if it "may impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies." The Guidelines also specifically state that projects that impact scenic highways, hazardous waste sites, or historical resources are not categorically exempt. Finally, pursuant to the Guidelines, any project contributing to significant cumulative impacts or that has a reasonable possibility of causing a significant effect on the environment due to unusual circumstances cannot be exempt. The state maintains a list of sensitive, or "special-status", biological resources, including those listed by the state or federal government or the California Native Plant Society as endangered, threatened, rare or of special concern due to declining populations. Projects that directly impact these resources may not qualify for a categorical

exemption. For example, grading that would remove a pond containing California red-legged frogs (federal Threatened) would not qualify for a categorical exemption under CEQA.

The CEQA Guidelines contain a checklist of questions to gauge whether a project will result in significant impacts. The questions that pertain to biological resources are as follows. If a project will have no impact related to these questions, no further CEQA action related to biological resources would be necessary:

Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and [Game] Wildlife or U.S. Fish and Wildlife Service?

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and [Game] Wildlife or U.S. Fish and Wildlife Service?

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy?

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The analysis of the project under CEQA includes consultation of the California Natural Diversity Database (CNDDB). The CNDDB relies on information provided by the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the California Native Plant Society, as well as the public regarding the location of rare plant and animal species. Under CEQA, the lists kept by these and any other widely recognized organizations are considered when determining the biological impacts of a project.

The CEQA Guidelines Section 15380 defines endangered, threatened, and rare species for the purposes of the analysis that complies with CEQA and clarifies that CEQA review extends to other species that are not formally listed under the state or federal Endangered Species Acts but that meet specified criteria. The state and federal governments keep lists of such “special-status” species which are reflected in the CNDDB. Many of these species are not listed under either ESA but are currently tracked to determine if listing is necessary. Thus they are not specifically protected by the state and federal Endangered Species Acts. They are only protected through measures imposed as a result of CEQA review. The California Native Plant Society has a list of plants that are considered to be rare, threatened, or endangered in a portion or all of their range; these plants may not have been listed by the California Department of Fish and Game or the U.S. Fish and Wildlife Service, but they are considered sensitive under CEQA. Thus, the lead agency should consider impacts to these species when assessing the

effects of a particular project, even if the project is otherwise exempt from CEQA. The California Department of Fish and Game is a trustee agency and is solicited for its comments during the CEQA process unless a project is exempt. The state also maintains a list of fully-protected species, for which no permits for take are allowed to be issued.

4.2.3 California Endangered Species Act

The California Endangered Species Act (CESA; Fish and Game Code 2050 et seq.) establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that State agencies shall not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy.

4.2.4 California Fish and Game Code

The California Department of Fish and Wildlife (CDFW) is authorized under the California Fish and Game Code, Sections 1600-1607 to develop mitigation measures and enter into Streambed Alteration Agreements with applicants who propose projects that would obstruct the flow of, or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams.

Sections 3500-3516, 4700, 5050 and 5515 address Fully Protected species. Prior to the passage of CESA, the classification of Fully Protected was the State's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Subsequently, many Fully Protected species have been listed under the state and/or federal Endangered Species Acts. The only exceptions are golden eagle, white-tailed kite, trumpeter swan, northern elephant seal, and ringtail. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Nesting birds, including raptors, are protected by the California Fish and Game Code section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under Fish and Game Code section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Passerines and non-passerine landbirds are further protected under the Federal Migratory Bird Treaty Act. As such, the CDFW typically recommends surveys for nesting birds that could potentially be directly (actual removal of trees/vegetation) or indirectly (noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

The California Department of Fish and Wildlife recommends replacing trees greater than 4 inches diameter at breast height (DBH, 4.5 feet above grade) at the following ratios: 6:1 for native oaks; 3:1 for other native trees; and 1:1 replacement for non-native trees. The purpose of tree replacement is to restore wildlife habitat quickly and to account for mortality of replanted trees.

4.3 Local

4.3.1 The Significant Tree Ordinance of San Mateo County and the Resource Management District

The County of San Mateo Planning and Building Division oversees compliance with the Significant Tree Ordinance of San Mateo County (Part Three of Division VIII of the San Mateo County Ordinance Code). The County has identified that tress and tree communities in San Mateo county are a valuable and distinctive natural resource. A "significant tree" is any live woody plant rising above the ground with a single stem or trunk of a circumference of thirty-eight inches or more measured at four and one half feet vertically above the ground or immediately below the lowest branch, whichever is lower. This is equivalent to a tree of 12 inches diameter at breast height (DBH).

Tree cutting in the RM district is exempt from obtaining a permit except within 100 feet of any County or State scenic road or highway, as identified in the San Mateo County General Plan, provide that any tree cutting in the RM district meets the criteria of sections 6324 through 6326.4 of the San Mateo County Zoning Regulations. Any permit issued for projects in the RM district constitutes a Certificate of Compliance as required by Section 6461 of the San Mateo County Zoning Regulations.

The zoning ordinance (Section 6324.2) includes the following guidance relative to natural resources:

"(i) Wherever possible, vegetation removed during construction shall be replaced. Vegetation for the stabilization of graded areas or for replacement of existing vegetation shall be selected and located to be compatible with surrounding vegetation, and should recognize climatic, soil and ecological characteristics of the region.

(j) Removal of living trees with trunk circumference of more than 55 inches[1] measured 4-1/2 feet above the average surface of the ground is prohibited, except as may be required for development permitted under this Ordinance, or permitted under the timber harvesting ordinance, or for reason of actual or potential danger to life and property.

(k) With the exception of trails and paths, and related appurtenances, no structural development shall be permitted where such development will adversely affect a perennial stream and associated riparian habitat." (note: Cordilleras Creek is intermittent and not a perennial stream).

And the following from Section 6324.4:

"(f) Development, with the exception of agricultural uses and public works and public safety projects, which might cause significant adverse impacts upon the natural course or riparian habitat of any stream, shall not be permitted. All developments shall be required to perform all feasible measures to mitigate possible impacts upon such areas."; and

"(h) Projects shall clearly demonstrate methods to be employed for management of vegetative cover, surface water runoff, groundwater recharge, and erosion and sedimentation processes to assure stability of downstream aquatic environments."

[1] 17 inches DBH

5.0 Constraints Analysis

5.1 Wetland and Jurisdictional Waters

Cordilleras Creek and its tributary have a distinct channel and banks that fall within the jurisdiction of the U.S. Army Corps of Engineers, the California Regional Water Quality Control Board, and the California Department of Fish and Wildlife. The riparian zone around Cordilleras Creek (Figure 3) is also within the jurisdiction of the California Department of Fish and Wildlife. No freshwater emergent wetlands were found on the project property. Any work associated with the culverts will require authorization from these agencies because the culverts are located within the historic creek banks. It should be assumed that the U.S. Army Corps of Engineers will request consultation with the U.S. Fish and Wildlife Service, and that a Biological Assessment will need to be prepared for that.

The Cordilleras Creek channel varies in width from 20 feet to 40 feet, measured from bank top to bank top. The low flow channel is shallow (6 inches) and narrow (2 feet), and the creek is intermittent. The low flow channel and top of bank is mapped on Figure 4; the approximate centerline is shown on Figure 5. The County planning division recommends a 30-foot setback from the creek centerline. The California Department of Fish and Wildlife may require a setback that is measured from the top of the creek bank in the Lake and Streambed Alteration Agreement (see Regulatory Requirements below).

The area where soil fill was historically placed on the property (upstream of the current development and to the south of the Cordilleras Creek channel), contains spots were water may pond as a result of the soil fill. Hydrophytic vegetation has not developed in these low areas, and they do not contain jurisdictional wetlands.

5.2 Wildlife Corridors

The existing development is fenced, but is surrounded by open space, and there are pathways open for wildlife movement around the development. Future fencing will need to take wildlife movement into consideration, however, because there is open space on all sides of the development it is expected that wildlife could continue to move through the area without being significantly impeded.

5.3 Special-status Species

The project footprint currently contains stick houses built by the San Francisco dusky-footed woodrat. Mitigation required for impacts to this species are listed below. The houses will need to be removed out of the project footprint prior to construction following a protocol agreed to with the California Department of Fish and Wildlife. This protocol is summarized in Section 6.1, below.

The project footprint has not been surveyed for Western leatherwood or San Francisco collinsia, which could occur in habitat present. A follow up survey is recommended. Removal of the plants should be avoided, and existing populations protected from human disturbance.

There is a very low likelihood of occurrence of California red-legged frog, San Francisco garter snake or Western pond turtle. Best management practices are recommended to be incorporated into project documents to avoid impacts to these species. If impacts occur and the project does not have a permit to take CRF or SFGS, the project would be in violation of the state federal endangered species acts. It should be assumed that the U.S. Army Corps of Engineers will

consult with the U.S. Fish and Wildlife Service regarding potential impacts to these federally listed species.

5.4 Trees

The project footprint contains a significant number of trees which need to be evaluated using the parameters listed below. It is recommended that trees 17 inches DBH or greater in diameter be retained in the project design to address concerns identified in the RM district zoning regulations. However, the California Department of Fish and Wildlife will require mitigation for any trees greater 4 inches DBH as part of the Lake and Streamed Alteration Agreement (S. DeLeon, pers. comm.), and the mitigation requirements are often site specific. An assessment of tree size and species will need to be prepared for the Lake and Streambed Alteration Agreement, along with a tree mitigation plan that includes replacement ratios, species, location, maintenance, monitoring, and reporting.

Trees that are removed will need to be replaced at higher ratios, as noted below, and these replacement trees will need to be shown in the landscape plan for the project. If there is not enough room onsite to plant replacement trees, a local site that is preferably within the watershed will need to be identified. There may be mitigation opportunities in the Pulgas Ridge Open Space Preserve adjacent to the project site (S. DeLeon, pers. comm.).

Tree replacement ratios for trees removed that are greater than 4 inches DBH could be:

- 6:1 for coast live oaks
- 3:1 for other native trees
- 1:1 for non-native trees (but replaced by native trees)

These ratios may change and site-specific ratios may be required by the resource agencies. Removal of trees less than 4 inches DBH may not require mitigation.

5.5 Regulatory Requirements

The project will require the following permits related to natural resources:

- A Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife for impacts to the riparian zone along Cordilleras Creek. It is recommended that the tributary to Cordilleras Creek be included in the application in the event changes to the culvert are required.
- A Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers (USACE) to replace existing culverts. This can likely be completed under the Nationwide Permit Program, however, the USACE may also need to consult with the U.S. Fish and Wildlife Service regarding the potential for impacts to federally listed species.
- A Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board.

5.6 CEQA Checklist Questions

Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on

any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The response to this question is expected to be “Less than Significant Impact with Mitigation”. The project footprint contains the stick houses of the San Francisco Dusky-footed woodrat and a CDFW-approved plan to trap the animals and move the woodrat houses out of the footprint will be required. The project may also impact San Francisco collinsia and western leatherwood. A site survey in the next bloom period for these species is recommended (Jan-May) to determine and map presence. A protection plan for the plants on the property should be incorporated into the project to minimize human impact.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The response to this question is expected to be “Less than Significant Impact with Mitigation”. The project includes redevelopment of an existing disturbed site and will also affect adjacent riparian and oak bay woodland. Because of its setting, the project will need to be executed carefully and with consideration for the natural environment to be in keeping with local ordinances and California Department of Fish and Wildlife requirements regarding creek setback and tree replacement. The parcel is predominantly open space, and is adjacent to the Pulgas Ridge Open Space and near Edgewood Natural Preserve and the Crystal Springs watershed. It will affect two to three acres of undeveloped habitat and will not substantially reduce wildlife habitat in the vicinity. Mitigation measures that should be incorporated into the project design are provided in section 6.2, below.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No. While the project site contains waters of the U.S. and state, it does not currently contain wetlands defined by the three parameters (hydric soil, hydrology, and hydric vegetation).

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No. It is unlikely that fish migrate through this area of Cordilleras Creek because of intermittent flows and barriers to fish movement between this site and San Francisco Bay. The existing development is fenced, but is surrounded by open space, and there are pathways open for wildlife movement around the development. Future fencing will need to take wildlife movement into consideration, however, because there is open space on all sides of the development it is expected that wildlife could continue to move through the area without being significantly impeded.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy?

It is anticipated that the project will incorporate requirements for creek setback and tree replacement and will not conflict with policies protecting biological resources.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural

Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No. The project is not within the study area of any approved or anticipated habitat conservation plans or natural community conservation plans.

6.0 Recommendations

6.1 Additional Surveys that are Necessary

Botanical survey(s) for western leatherwood and San Francisco collinsia should be conducted in suitable habitat within the proposed project footprint and adjacent areas during the blooming period (January to April for leatherwood, March-May for collinsia). If these plants are found to be present in the area of direct project impacts, the project plan may need to be modified to avoid the plants. It will be important to identify all locations of the plants on the property in order to put any unavoidable removal of plants in biological context.

Woodrat

A map of woodrat houses within the project footprint and within 200 feet of the project footprint will be necessary in order to prepare a woodrat removal plan for CDFW approval.

Bat

In order to avoid or minimize impacts to potential roosting bats, a pre-tree removal survey should be conducted no more than 30 days prior to tree removal. The survey should be conducted by a qualified bat biologist. If no active roost is present, then no further action is required. However, if a maternity roost of a special-status bat species is detected during the maternity season (approximately March 1 – August 30), then CDFW will need to be notified and tree removal cannot take place until after August 30. If non-breeding bats are found in a tree proposed for removal, bats should be passively excluded from the tree. This is generally accomplished by opening up the roost area to allow airflow through the cavity/crevice, or installing one-way doors. This would need to be done by a CDFW approved biologist.

Trees

The project should include an arborist report that identifies the location of all trees larger than 4 inches DBH, their species, and their condition.

Biological Assessment

The U.S. Army Corps of Engineers may require a Biological Assessment that addresses project impacts to federally listed species in the event it consults with the U.S. Fish and Wildlife Service. The Biological Assessment will include a habitat assessment for these species but does not require protocol surveys.

6.2 Avoidance and Minimization Measures

The following measures are likely to be required of the project as a result of the CEQA process and/or wildlife agency authorizations:

Creek Protection

Stormwater Best Management Practices (e.g., erosion control) will be required for the project to protect water quality in Cordilleras Creek and downstream.

A setback from the creek bank (not just the centerline) will be required to protect creek bank vegetation and integrity. Stormwater flows will need to be managed so there is no net increase in stormwater flow to the creek, per state guidelines.

Revegetation of soils temporarily disturbed for site grading will be required.

Replacement of trees removed per ratios mentioned above will replace wildlife habitat and restore portions of the riparian corridor that are affected. Native trees will be required.

San Francisco Dusky-footed Woodrat

Mitigation for SFDW requires preparation of a plan to move woodrat houses out of the project impact area that is approved by the California Department of Fish and Wildlife. Based on recent experience, this could potentially include the following steps:

- A site survey to map woodrat houses within the project footprint and a 200 foot perimeter of the project footprint;
- A written removal plan provided to CDFW for approval well in advance of actual removal;
- The availability of an adequate amount of adjacent habitat;
- Live trapping SFDW at stick houses that cannot be avoided, then holding them temporarily in trap in a shaded area.
- Dismantling of the stick house, and release of the SFDW the same morning in re-constructed stick house shelters in similar habitat within 200 feet of the removed house;
- Reconstructed stick houses will consist of woody debris salvaged from the stick house assembled around a 12-inch pine box, vented, with 2 interior chambers, one off-set entrance. The pine box will be stabilized with wooden stakes and screws and installed slightly below grade. Cached food from the affected house and/or seed used for live-trapping will be placed inside the box along with salvaged nest material. The SFDW will be released into the chamber and the entrance loosely plugged with soil and debris to incite the animal to remain during the day it is released.
- Monitoring of the results of woodrat activity at each shelter within 60 days and at one year, and providing a report to CDFW.
- Pre-project construction surveys for the SFDW within 48 hours before sites are disturbed to verify no new stick houses have been established. New houses will be protected and CDFW will be contacted for guidance.

California Red-legged Frog, San Francisco Garter Snake, Western Pond Turtle

Although impacts to these species are not likely, the project will need to include the following measures to avoid impacts.

Project construction shall be limited to the dry season (June 1- November 1) when these species are unlikely to be moving to and from aquatic sites.

An employee education program shall be conducted prior to the initiation of project activities. The program will consist of a brief presentation by persons knowledgeable in the biology of these species and legislative protection to explain concerns to contractors and their employees. The program shall include: a) a description of species identifying features and life history; b)

information on status of the species and protection under state and federal laws; and c) a list of measures required during the project to reduce impacts to the species and the habitat. Both construction and maintenance crews shall be instructed what to do if a frog is found, including notification requirements. The employee education program shall be repeated for new construction and maintenance personnel.

A qualified biologist shall conduct pre-construction surveys for these species immediately before initiation of any ground disturbing activities. These surveys will comprise thoroughly walking the area while conducting visual encounter surveys within areas that will be subject to development. In addition, daily monitoring of the site in the morning prior to the start of work may be conducted at the discretion of the qualified biologist or as required by permits. A qualified biologist shall be present during all new ground disturbing work.

To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled they must be thoroughly inspected by the biological monitor for trapped animals. Any pipes or similar structures stored in the project site overnight shall be inspected by the biological monitor before they are subsequently moved, capped and/or buried.

To prevent animals from becoming entangled, trapped or injured, erosion control materials that contain synthetic mono-filament netting shall not be used within the project area. This includes products that use photodegradable or biodegradable synthetic netting, which can take several months to decompose. Acceptable materials include natural fibers such as jute, coconut (coir), twine or other similar fibers.

Rare Plants

If rare plants are identified within or near the project development area the locations should be flagged. Depending on the species, there may be an effort to salvage plants that cannot be avoided. Plants outside of the footprint should be protected with fencing to avoid impacts during construction, and their locations should be left alone post construction.

An employee education program regarding rare plants should be incorporated into the rare animal education program explained above.

6.3 Additional Recommendations

Rodent control measures at the facility should be reviewed in light of the presence of San Francisco dusky-footed woodrat and raptors. Rodenticides are not recommended.

It is recommended that all plantings be native species or compatible species. Use of invasive plant species should be avoided.

There are patches of highly invasive non-native plant species on the property, such as French and Spanish broom. These should be removed to prevent adverse impacts to adjacent natural habitats.

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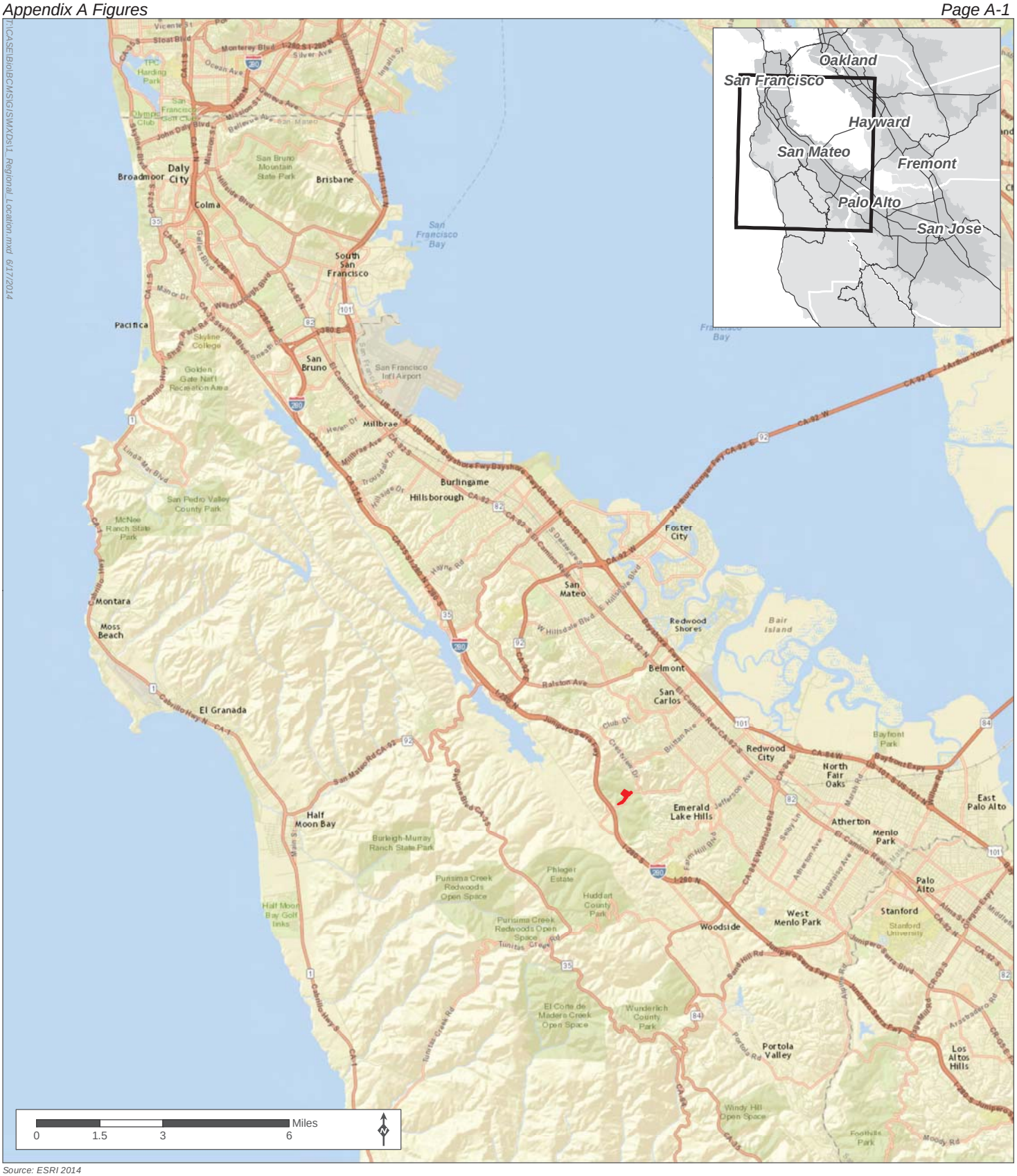
CORDILLERAS MENTAL HEALTH CENTER
BIOLOGICAL CONSTRAINTS ANALYSIS

APPENDIX A

FIGURES
TRA Environmental Sciences, Inc.

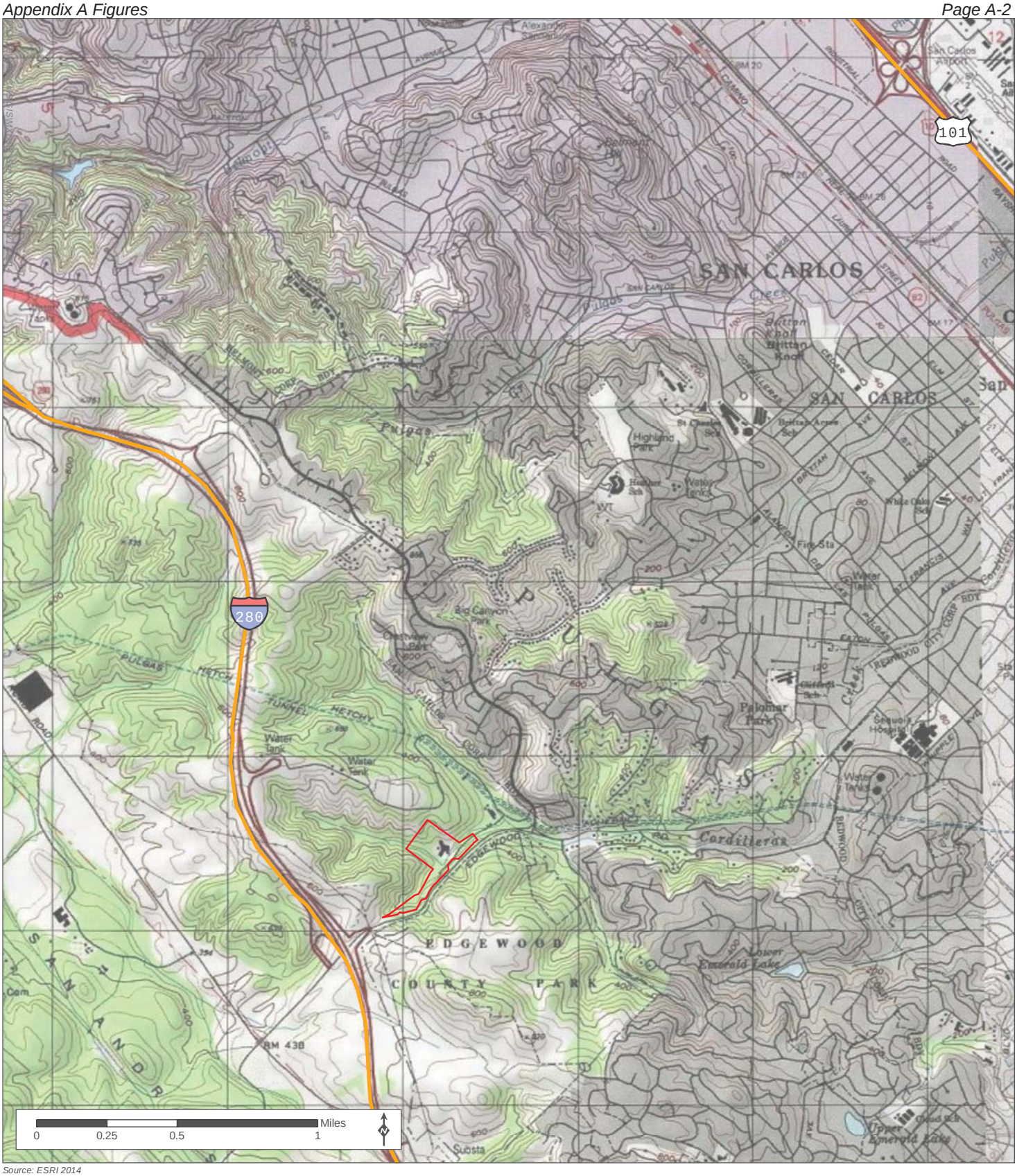


Source: ESRI 2014

Property Boundary

Figure 1 Regional Location

Cordilleras Mental Health Center

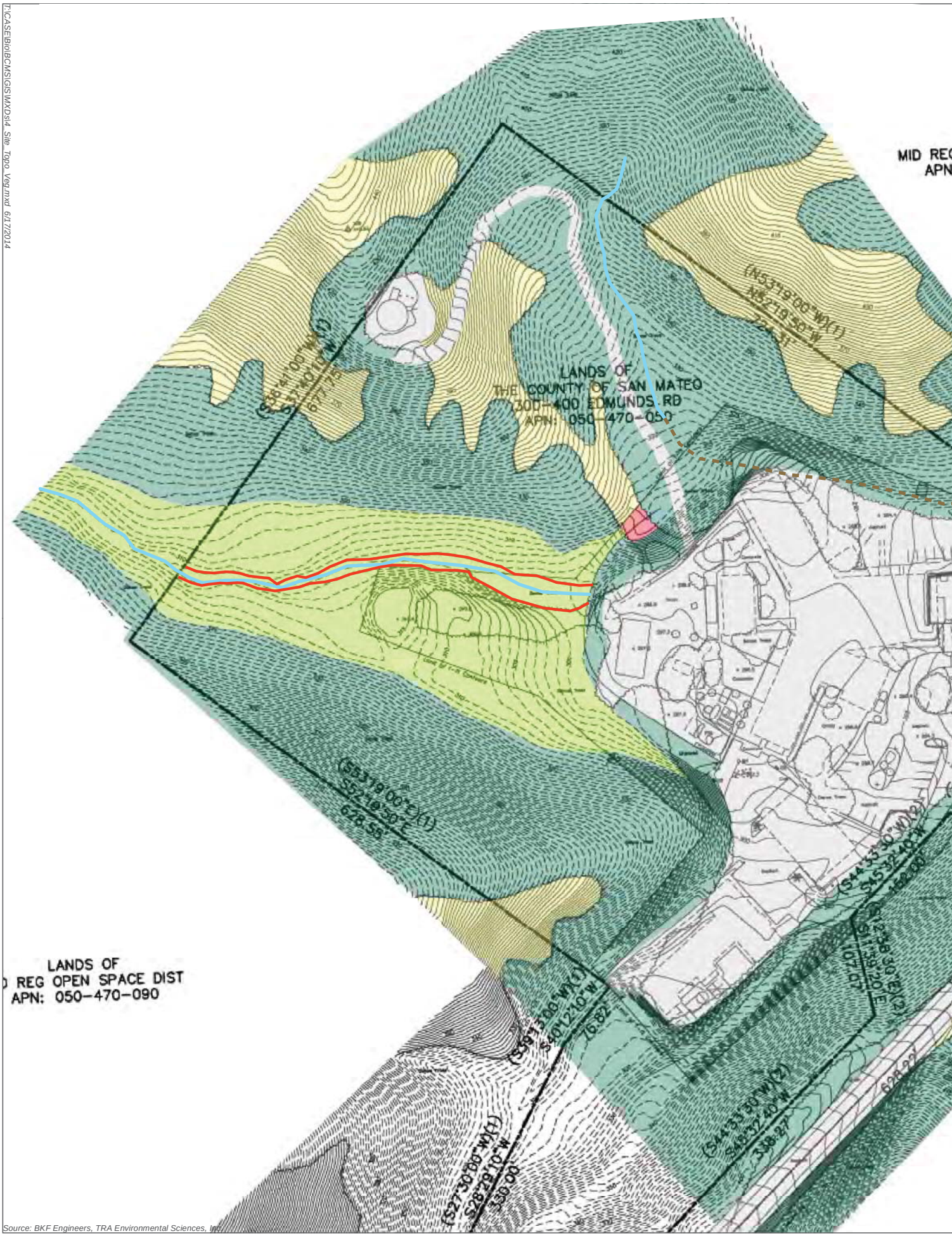


Source: ESRI 2014

Property Boundary

Figure 2 Site Vicinity Location

Cordilleras Mental Health Center



Source: BKF Engineers, TRA Environmental Sciences, Inc.

San Mateo County
Behavioral Health Services
HGA Architects and Engineers

Feasibility Study to Replace Cordilleras Mental Health Ce

Figure 6 Photographs

Photo 1: Cordilleras Creek stormdrain inlet upstream of existing development.

Photo 2: Redwoods and oak woodland in area proposed for new buildings.

Photo 3: Oak woodland and grassland in area proposed for new hospital community center.

Photo 4: Structure in the creek bed.

Photo 5: Creek bank and bed near storm drain inlet.

Photo 6: Cordilleras Creek channel.

Photo 7: Cordilleras Creek channel and woodrat house.

CORDILLERAS MENTAL HEALTH CENTER
BIOLOGICAL CONSTRAINTS ANALYSIS

APPENDIX B

SPECIAL STATUS SPECIES TABLES
TRA Environmental Sciences, Inc.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)					
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Life Form, Blooming Period**	**Potential to be impacted by the Project[b]**
San Mateo thorn-mint (*Acanthomintha duttonii*)	FE; SE; CRPR1B.1	Located in San Mateo County.	Chaparral, valley and foothill grassland, or coastal scrub. Locally occurs in serpentine bunchgrass grassland; 50-300 m.	Annual herb, April - June	None. Suitable habitat is not present.
Franciscan onion (*Allium peninsulare var. franciscanum*)	CRPR 1B.2	Coastal mid California, from Monterey to Mendocino Counties.	Cismontane woodland, valley and foothill grasslands. Often on dry hillsides and in serpentine bunchgrass grasslands; 52-300 m.	Perennial bulbiferous herb, May - June	None. Suitable habitat is not present.
bent-flowered fiddleneck (*Amsinckia lunaris*)	CRPR 1B.2	Mid California, including Monterey, Santa Cruz, San Mateo, Marin, Alameda, Contra Costa, Napa, Lake and Colusa counties.	Coastal bluff scrub, cismontane woodland or valley and foothill grassland; 3-500 m.	Annual herb, March - June	Moderate
Anderson's manzanita (*Arctostaphylos andersonii*)	CRPR 1B.2	Mid California including Monterey, Santa Cruz, San Mateo, Santa Clara, and Alameda counties.	Broadleaved upland forest, mixed evergreen forest, North coast coniferous forest including open sites in redwood forest, chaparral; 60-760 m.	Perennial evergreen shrub, November - May	None. Manzanita species are not present in the project footprint.
Montara manzanita (*Arctostaphylos montaraensis*)	CRPR 1B.2	Endemic to San Mateo County.	Maritime chaparral or coastal; 150-500 m.	Perennial evergreen shrub, January - March	None. Habitat not present in the project footprint

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]
Kings Mountain manzanita (*Arctostaphylos regismontana*)	CRPR 1B.2	Mid California including Santa Cruz, San Mateo, and Santa Clara counties.	Granite or sandstone outcrops in chaparral, coniferous, broadleaved upland and evergreen forests; 305-730 m.	Perennial evergreen shrub, January – April	None. Suitable habitat not present in the project footprint.
Coastal marsh milk-vetch (*Astragalus pynostachyus* var. *pynostachyus*)	CRPR 1B.2	Endemic to Humboldt, Marin and San Mateo Counties.	Coastal dunes (mesic), coastal scrub or marshes and swamps (coastal salt, streamside); 0-30 m.	Perennial herb, April-October	None. Coastal scrub or dune habitat not present.
round-leaved filaree (*California macrophylla*)	CRPR 1B.1	Scattered locations throughout California west of the Sierra Nevada and south of Red Bluff.	Cismontane woodland or valley and foothill grassland on clay soils; 15-1200 m.	Annual herb, March-May	Low. Suitable habitat present but this species is not known to occur within 5 miles of the project.
Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*)	CRPR 1B.2	Throughout western California from San Luis Obispo to Solano County.	Valley and foothill grasslands with alkaline or clay soils; 0-230 m.	Annual herb, May - November	None. Suitable habitat is not present in the project footprint.
Pappose tarplant (*Centromadia parryi* ssp. *parryi*)	CRPR 1B.2	Endemic to Butte, Colusa, Glenn, Lake, Napa, San Luis Obispo, San Mateo, Solano and Sonoma Counties.	Chaparral, coastal prairie, meadows and seeps, marshes and swamps (coastal salt) or valley and foothill grassland (vernally mesic); 2-420 m.	Annual herb, May - November	None. Suitable habitat is not present in the project footprint.
Point Reyes bird's beak (*Chloropyron maritimum* ssp. *palustre*)	CRPR 1B.2	Extant occurrences in Humboldt, Marin, San Francisco and Sonoma Counties.	Marshes and swamps (coastal salt); 0-10 m.	Annual herb (hemiparasitic), June-October	None. Suitable habitat is not present in the project footprint.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)					
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Life Form, Blooming Period**	**Potential to be impacted by the Project[b]**
San Francisco Bay spineflower (*Chorizanthe cuspidata* var. *cuspidata*)	CRPR 1B.2	Endemic to Marin, San Francisco, San Mateo and possibly Sonoma Counties.	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub on sandy soils; 3-215 m.	Annual herb, April-August	None. Suitable habitat is not present in the project footprint.
robust spineflower (*Chorizanthe robusta* var. *robusta*)	FE, CRPR 1B.2	Endemic to the San Francisco Bay Area and Monterey Coast.	Chaparral (maritime), cismontane woodland (openings), coastal dunes and coastal scrub in sandy or gravelly soils; 3-300 m.	Annual herb, April-September	None. Suitable habitat is not present in the project footprint.
Franciscan thistle (*Cirsium andrewsii*)	CNPS 1B.2	Endemic to Contra Costa, Marin, San Francisco and San Mateo Counties.	Broadleaved upland forest, coastal bluff scrub, coastal prairie or coastal scrub on mesic, sometimes serpentinite sites; 0-150 m.	Perennial herb, March - July	None. Suitable habitat is not present in the project footprint.
Crystal Springs fountain thistle (*Cirsium fontinale var. fontinale*)	FE; SE; CRPR 1B.2	Found exclusively in San Mateo county.	Valley and foothill grasslands and chaparral including serpentine seeps and grassland; 45-175 m.	Perennial herb, May - October	None. Suitable habitat is not present in the project footprint.
San Francisco collinsia (*Collinsia multicolor*)	CRPR 1B.2	Mid-coastal California from Monterey to Marin county including Santa Clara county.	Moist shady woodland, closed-cone coniferous forests and coastal scrub. Occasionally found in serpentine; 30-250 m.	Annual herb, March – May	High. Suitable habitat is present in the project footprint. Observed to occur in the Cordilleras Creek channel in June 2014.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)					
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Life Form, Blooming Period**	**Potential to be impacted by the Project[b]**
western leatherwood (*Dirca occidentalis*)	CRPR 1B.2	San Francisco Bay area including Santa Clara to Marin county and east to Alameda county.	Cool, moist slopes in foothill woodland and riparian forests. Mesic environments in broadleaved upland forests, chaparral and coniferous woodlands and mixed evergreen and oak woodlands; 25-425 m.	Perennial deciduous shrub, January – April.	High. Suitable habitat present in the project footprint. Known to occur at Edgewood Natural Preserve.
Ben Lomond buckwheat (*Eriogonum nudum* var. *decurrens*)	CRPR 1B.1	Endemic to Alameda, Santa Clara and Santa Cruz Counties.	Chaparral, cismontane woodland, lower montane coniferous forest (maritime ponderosa pine sandhills); 50-800 m.	Perennial herb, June-October	Low. Marginally suitable habitat present. Not known to occur within 5 miles of the project site.
San Mateo woolly sunflower (*Eriophyllum latilobum*)	FE, SE, CNPS 1B.1	San Mateo and Napa counties.	Cismontane and oak woodland, often on roadcuts; found on and off of serpentine and on grassy hillsides; 45-150m.	Perennial herb, April – June	Low. Marginally suitable habitat present. Not known to occur within 5 miles of the site.
Hoover's button-celery (*Eryngium aristulatum* var. *hooveri*)	CRPR 1B.1	Endemic to Alameda, San Benito, Santa Clara, San Diego and San Luis Obispo Counties.	Vernal pools; 3-45 m.	Annual/perennial herb, July-August	None. Suitable habitat is not present in the project footprint.
Hillsborough chocolate lily (*Fritillaria biflora var. ineziana*)	CRPR 1B.1	Endemic to San Mateo County.	Cismontane woodland or valley and foothill grasslands on serpentine soils.	Perennial herb, March – April	None. Serpentine soils are not present in the project footprint.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)					
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Life Form, Blooming Period**	**Potential to be impacted by the Project[b]**
fragrant fritillary (*Fritillaria liliacea*)	CRPR 1B.2	Found throughout northern and central California wherever there is suitable habitat.	Cismontane woodland and coastal scrub and prairie, in valley and foothill grasslands (often serpentine bunchgrass grassland); 3-410 m.	Perennial bulbiferous herb, February – April	None. Suitable habitat not present in the project footprint.
Short-leaved evax (*Hesperevax sparsiflora* var. *brevifolia*)	CRPR 1B.2	Occurs along the coast from the Oregon border to near Santa Cruz.	Coastal bluff scrub (sandy), coastal dunes or coastal prairie; 0-215 m.	Annual herb, March-June	None. Suitable habitat not present in the project footprint.
Marin western flax (*Hesperolinon congestum*)	FT; ST; CRPR 1B.1	Found only around the San Francisco peninsula in San Mateo and Marin Counties.	Chaparral, valley and foothill grassland, especially in serpentine bunchgrass grassland and serpentine barrens; 5-370 m.	Annual herb, April – July	None. Suitable habitat not present in the project footprint.
Kellog's horkelia (*Horkelia cuneata* var. *sericea*)	CRPR 1B.1	California endemic with extant occurrences in Monterey, Santa Barbara, Santa Cruz, San Luis Obispo and San Mateo Counties.	Closed-cone coniferous forest, chaparral (maritime), cismontane woodland, coastal dunes or coastal scrub in sandy or gravelly openings; 10-200 m.	Perennial herb, May-October	None. Suitable habitat not present in the project footprint.
Point Reyes horkelia (*Horkelia marinensis*)	CRPR 1B.2	Endemic to Mendocino, Marin, Santa Cruz, San Mateo and Sonoma Counties.	Coastal dunes, coastal prairie or coastal scrub on sandy soils; 5-350 m.	Perennial herb, May-September	None. Suitable habitat not present in the project footprint.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)					
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Life Form, Blooming Period**	**Potential to be impacted by the Project[b]**
perennial goldfields (*Lasthenia california ssp. macrantha*)	CRPR 1B.2	Endemic to Mendocino, Marin, San Luis Obispo, San Mateo and Sonoma Counties.	Coastal bluff scrub, coastal dunes or coastal scrub; 5-520 m.	Perennial herb, January-November	None. Suitable habitat not present.
legenere (*Legenere limosa*)	CRPR 1B.1	Endemic to the Central Valley and Inner Coast Ranges from Redding to Salinas.	Vernal pools; 0-880 m.	Annual herb, April-June	None. Suitable habitat not present.
Coast yellow leptosiphon (*Leptosiphon croceus*)	CRPR 1B.1	California endemic; extant occurrences in Monterey and San Mateo Counties.	Coastal bluff scrub or coastal prairie; 10-150 m.	Annual herb, April-May	None. Suitable habitat not present.
rose leptosiphon (*Leptosiphon rosaceus*)	CRPR 1B.1	California endemic; extant occurrences in Marin and San Mateo Counties.	Coastal bluff scrub; 0-100 m.	Annual herb, April-July	None. Suitable habitat not present.
Crystal Springs lessingia (*Lessingia arachnoidea*)	CRPR 1B.2	Endemic to San Mateo county and Sonoma Counties.	Cismontane woodland, coastal scrub or valley and foothill grassland on serpentine soils, often on roadsides; 60 – 200m.	Annual herb ; July – October	Low. Suitable vegetative habitat present, but serpentine soil habitat not present. Occurs in the area around the project site.
Indian Valley bush mallow (*Malacothamnus aboriginum*)	CRPR 1B.2	Endemic to western California from San Mateo to Paso Robles.	Chaparral, cismontane woodland. Rocky, granitic soils, often in burned areas; 150-1700 m.	Perennial deciduous shrub, April-October	None. Suitable habitat not present in the project footprint.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)					
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Life Form, Blooming Period**	**Potential to be impacted by the Project[b]**
arcuate bush mallow (*Malacothamnus arcuatus*)	CRPR 1B.2	Found throughout the San Francisco peninsula and the south bay area throughout San Mateo and Santa Clara counties and Merced county.	Ultramafic chaparral, gravelly alluvium. Locally, in openings in mixed evergreen forests; 15-355 m.	Perennial evergreen shrub, April – September	None. Suitable habitat not present in the project footprint.
Davidson's bush mallow (*Malacothamnus davidsonii*)	CRPR 1B.2	Throughout California, found in San Mateo, Monterey, San Luis Obispo, and Los Angeles counties.	Sandy washes within coastal scrub, chaparral, and riparian woodland, at elevations 185 – 855m.	Perennial deciduous shrub, June – January	None. Suitable habitat not present in the project footprint.
Hall's bush mallow (*Malacothamnus hallii*)	CRPR 1B.2	Endemic to western California from Mendecino and Lake Counties to Stanilaus County.	Chaparral and coastal scrub; 10-760 m.	Perennial evergreen shrub, May-October	None. Suitable habitat not present in project footprint.
marsh microseris (*Microseris paludosa*)	CRPR 1B.2	California endemic; extant occurrences in Mendocino, Monterey, Marin, San Benito, Santa Cruz, San Luis Obispo and Sonoma Counties.	Closed-cone coniferous forest, cismontane woodland, coastal scrub or valley and foothill grassland; 5-300 m.	Perennial herb, April-June	Low. Suitably moist habitat not present in project footprint.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)					
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Life Form, Blooming Period**	**Potential to be impacted by the Project[b]**
woodland woolythreads (*Monolopia gracilens*)	CRPR 1B.2	Through central California from San Mateo and Contra Costa counties south to San Luis Obispo county.	Grassy openings in chaparral, valley and foothill grasslands (serpentine), cismontane woodland, broadleafed upland forests, North coast coniferous forest. Sandy to rocky soils; 100-1200 m.	Annual herb, February – July	Moderate. Grassy openings and serpentine soils are not present in the project footprint. This species is known to occur near the project site.
Dudley's lousewort (*Pedicularis dudleyi*)	SR; CRPR 1B.2	Throughout central coastal California from San Mateo county south to San Luis Obispo county.	Chaparral, valley and foothill grassland and North coast coniferous forest, particularly deep shady woods and steep cut banks in older coast redwood forests and maritime chaparral; 60-900 m.	Perennial herb, April – June	None. Suitable habitat not present in the project footprint.
white-rayed pentachaeta (*Pentachaeta bellidiflora*)	FE; SE; CNPS 1B.2	California endemic; extant occurrences in San Mateo County.	Cismontane woodland or valley and foothills grassland (often serpentinite); 35-620 m.	Annual herb, March – May	None. Suitable habitat not present in the project footprint.
white-flowered rein orchid *Piperia candida*	CRPR 1B.2	Through northern coastal California from Del Norte county south to Santa Cruz county.	Broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest. Often on mossy banks and rock outcrops or in the forest duff; 30-1310 m.	Perennial herb, May - September	None. Suitable habitat not present in the project footprint.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)					
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Life Form, Blooming Period**	**Potential to be impacted by the Project[b]**
Choris' popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*)	CRPR 1B.2	Endemic to coastal central California including Santa Cruz, San Francisco and San Mateo Counties.	Chaparral, coastal prairie or coastal scrub on mesic sites; 15-160 m.	Annual herb, March – June	None. Suitable habitat not present in the project footprint.
Oregnon polemonium (*Polemonium carneum*)	CRPR 2.2	Occurs in northern California and in the San Francisco Bay Area.	Coastal prairie, coastal scrub or lower montane coniferous forest; 0-1830 m.	Perennial herb, April-September	None. Suitable habitat not present in the project footprint.
Hickman's cinquefoil (*Potentilla hickmanii*)	FE, SE, CRPR 1B.1	Endemic to Sonoma, San Mateo and Monterey Counties.	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic) or marshes and swamps (freshwater); 10-149 m.	Perennial herb, April-August	None. Suitable habitat not present in the project footprint.
San Francisco campion (*Silene verecunda* ssp. *verecunda*)	CRPR 1B.2	Endemic to Santa Cruz, San Francisco, San Mateo and Sutter Counties.	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub or valley and foothills grassland on sandy soils; 30-645 m.	Perennial herb, March – August	None. Suitable habitat not present in the project footprint.
slender-leaved pondweed (*Stuckenia filiformis*)	CRPR 2.2	Occurs in Northern California in the Inner Coast Ranges and Sierra Nevadas from east of Redding to near San Jose.	Marshes and swamps (assorted shallow freshwater); 300-2150 m.	Perennial rhizomatous herb, May-July	None. Suitable habitat not present in the project footprint.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)					
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Life Form, Blooming Period**	**Potential to be impacted by the Project[b]**
showy rancheria clover (*Trifolium amoenum*)	FE; CRPR 1B.1	Marin, Sonoma, Napa Solano, and San Mateo counties.	Coastal bluff scrub, valley and foothill grassland (sometimes serpentine), often open sunny sites; 5-415 m.	Annual herb, April – June	None. Suitable habitat not present in the project footprint.
saline clover (*Trifolium hydrophilum*)	CRPR 1B.2	Endemic to San Francisco Bay Area and surrounding counties.	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools; 0-300 m.	Annual herb, April – June	None. Suitable habitat not present in the project footprint.
San Francisco owl's clover (*Triphysaria floribunda*)	CRPR 1B.2	Endemic to Marin, San Francisco and San Mateo Counties.	Coastal prairie, coastal scrub or valley and foothill grassland, usually serpentinite; 10-160 m.	Annual herb, April-June	None. Suitable habitat not present in the project footprint.
Coastal triquetrella (*Triquetrella californica*)	CRPR 1B.2	Found in scattered locations along the California coast.	Coastal bluff scrub or coastal scrub; 10-100 m.	Moss	None. Suitable habitat not present in the project footprint.

Table 1. Special-status Plants Potentially Occurring in the Project Area (9 quad search)

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Life Form, Blooming Period	Potential to be impacted by the Project[b]

[a] Status explanations:

Federal:

FE = Listed as endangered under the Federal Endangered Species Act.

FT = Listed as threatened under the Federal Endangered Species Act.

State:

SE= Listed as endangered under the California Endangered Species Act.

ST= Listed as threatened under the California Endangered Species Act.

California Rare Plant Rank:

1B**=** Plants Rare, Threatened, or Endangered in California and Elsewhere

2= Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

0.1-Seriously threatened in California

0.2-Fairly threatened in California

[b] Potential Occurrence explanations:

Present: Species was observed on the project site, or recent species records (within five years) from literature are known within the project area.

High: The CNDDB or other reputable documents record the occurrence of the species off-site, but within a 5-mile radius of the project area and within the last 10 years. High-quality suitable habitat is present within the project area.

Moderate: Species does not meet all terms of High or Low category. For example: CNDDB or other reputable documents may record the occurrence of the species near but beyond a 5-mile radius of the project area, or some of the components representing suitable habitat are present within or adjacent to the project area, but the habitat is substantially degraded or fragmented.

Low: The CNDDB or other documents may or may not record the occurrence of the species within a 5-mile radius of the project area. However, few components of suitable habitat are present within or adjacent to the project area.

None: CNDDB or other documents do not record the occurrence of the species within or reasonably near the project area and within the last 10 years, and no or extremely few components of suitable habitat are present within or adjacent to the project area; or site is outside of specie's range.

Table 2. Special-status Animals Potentially Occurring in the Project Area				
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Potential to be impacted by the project[b]**
Invertebrates				
San Bruno elfin butterfly (*Callophrys mossii bayensis*)	FE	Endemic to only three locations in San Mateo County: Milagra Ridge, San Bruno Mountain and Montara Mountain.	Coastal, mountainous areas with grassy ground cover. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is *Sedum spathulifolium.*	None. Suitable habitat is not present in the project footprint. Host plant is not present. Highly restricted.
Bay checkerspot butterfly (*Euphydryas editha bayensis*)	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay.	*Plantago erecta* is the primary host plant, *Castilleja densiflorus* and *C. purpurscens* are secondary host plants.	None. Suitable habitat is not present in the project footprint. Host and nectar plants are not present.
Mission blue butterfly (*Plebejus icarioides missionensis*)	FE	Endemic to the grasslands of the San Francisco peninsula.	Three larval host plants: *Lupinus albifrons, L. variicolor* and *L. formosus*; *L. albifrons* is favored.	None. Suitable habitat not present in the project footprint. Host plants are not present.
Callipe silverspot (*Speyeria callipe callpe*)	FE	Restricted to the Northern coastal scrub of the San Francisco Peninsula.	Host plant is *Viola pedunculata.* Most adults are found on east-facing slopes; males congregate on hilltops in search of females.	None. Suitable habitat not present in the project footprint.
Mrytle's silverspot (*Speyeria zerene myrtleae*)	FE	Restricted to foggy coastal dunes/hills of the Point Reyes peninsula; extripated from coastal San Mateo County.	Larval foodplant thought to be *Viola adunca.*	None. Suitable habitat not present in the project footprint.

Table 2. Special-status Animals Potentially Occurring in the Project Area				
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Potential to be impacted by the project[b]**
Fish				
steelhead- Central California Coast DPS (*Oncorhynchus mykiss irideus*)	FT	This distinct population segment (DPS) includes all anadromous *O. mykiss* (steelhead) populations from the Russian River south to Soquel Creek and to, but not including, the Pajaro River. Populations in the San Francisco and San Pablo Basins are also included.	Adults migrate from a marine environment into the freshwater streams and rivers of their birth in order to mate (called anadromy). Unlike other Pacific salmonids, they can spawn more than one time (called iteroparity). Migrations can be hundreds of miles.	Low. Cordilleras Creek is not known to support steelhead. The project is adjacent to the uppermost reach of the creek, and a drop structure in the creek east of the property would be a barrier to steelhead migration, as well as the portion of the creek that is currently culverted around the existing building.
tidewater goby (*Eucyclogobius newberryi*)	FE CSSC	Occurs in brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River.	Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	None. Suitable habitat is not present in the project area.
Amphibians and Reptiles				
California tiger salamander (*Ambystoma californiense*)	FT ST CSSC	Endemic to California, found in isolated populations the Central Valley and Central Coast ranges.	This species needs underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal wetlands for breeding.	None. California tiger salamander is not known to occur within five miles of the project. The project property does not contain suitable breeding habitat for this species.
foothill yellow-legged frog (*Rana boylii*)	CSSC	Occurs in the foothills of the western side of the Sierra Nevada mountains from the northern border of the state to the Tehachapi mountains. Recorded in Pescadero Creek in 1999.	Inhabits partly shaded, shallow streams and rifles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg laying, need at least 15 weeks for metamorphisis.	None. Not known to occur within 5 miles of the project, and suitable breeding habitat is not present on site.

Table 2. Special-status Animals Potentially Occurring in the Project Area				
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Potential to be impacted by the project[b]**
California red-legged frog (*Rana draytonii*)	FT	Endemic to California and northern Baja California.	Inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Low. CRF is recorded to occur 1.6 miles from the project, however all recorded locations are on the west side of I-280, which poses a significant migratory barrier. The project site and adjacent open space do not contain suitable breeding habitat for CRF, and CRF has not been recorded in the CNDDB to occur in Cordilleras Creek.
Western pond turtle (*Actinemys marmorata*)	CSSC	Occurs from Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley and on western slope of Sierra Nevada.	Inhabits ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests.	Low. WPT is known to occur within 2 miles of the project site, however all recorded locations are on the west side of I-280, which poses a significant migratory barrier. The project site and adjacent open space do not contain suitable breeding habitat for WPT, and WPT has not been recorded in the CNDDB to occur in Cordilleras Creek.

Table 2. Special-status Animals Potentially Occurring in the Project Area				
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Potential to be impacted by the project[b]**
San Francisco garter snake (*Thamnophis sirtalis tetrataenia*)	FE SE	Occurs in the vicinity of freshwater marshes, ponds and slow moving streams in San Mateo County and extreme northern Santa Cruz County.	Prefers dense cover and water depths of at least one foot, upland areas near water are also very important.	Low. SFGS is known to occur within 2 miles of the project site, however all recorded locations are on the west side of I-280, which poses a significant migratory barrier. The project site and adjacent open space do not contain suitable breeding habitat for SFGS, which does, and SFGS has not been recorded in the CNDDB to occur in Cordilleras Creek.
Birds				
white-tailed kite (*Elanus lecurus*)	CFP	Year-round resident in lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills, to western San Diego County at Mexico border.	Inhabits low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands are used for foraging.	Moderate. This species could occur in the Pulgas Ridge Open Space Preserve and Edgewood Natural Preserve. Potential nesting habitat occurs onsite.
Northern harrier (*Circus cyaneus*)	CSSC	Occurs throughout lowland California; has been recorded in fall at high elevations.	Inhabits grasslands, meadows, marshes, and seasonal and agricultural wetlands.	None. Suitable habitat for this species is not present.
golden eagle (*Aquila chrysaetos*)	CFP	Inhabits foothills and mountains throughout California.	Nests on cliffs and escarpments or in tall trees overlooking open country; forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals.	Low. Forage habitat is present on site; nesting habitat is not.

Table 2. Special-status Animals Potentially Occurring in the Project Area				
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Potential to be impacted by the project[b]**
American peregrine falcon (*Falco peregrine anatus*)	CFP	Occurs throughout the Central Valley, coastal areas and northern mountains of California.	Riparian areas, wetlands, lakes and other aquatic features provide important breeding and foraging habitat for this species. Nests on cliffs or man-made structures such as buildings and bridges; feeds on birds.	Moderate. Peregrine could use the project site for forage, and potentially use the existing building for nesting.
California clapper rail (*Rallus longirostris obsoletus*)	FE SE	This California endemic inhabits salt water and brackish marshes traversed by tidal sloughs in the vicinity of the San Francisco Bay.	Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	None. Suitable habitat is not present on the project site or near the project site.
Western snowy plover (*Charadrius alexandrinuss nivosus*- Pacific population)	FT CSSC	Tthe Pacific population of western snowy plover occurs along the entire coastline of California.	Occurs on sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	None. Suitable habitat is not present on the project site or near the project site.
California least tern (*Sternula antillarum*)	FE SE	Nests along the coast from San Francisco Bay south to Northern Baja California.	Colonial breeder on bare or sparsely vegetated flat substrates, sandy beaches, alkali flats, landfills or paved areas.	None. Suitable habitat is not present on the project site or near the project site.
burrowing owl (*Athene cunicularia*)	CSSC	Year-round resident throughout much of the State, except the coastal counties north of Marin and mountainous areas.	Occurs in open, dry annual or perennial grasslands, deserts and scrublands characterized by low growing vegetation. Nests in small mammal burrows, particularly those of the California ground squirrel.	None. Suitable habitat does not occur within the project footprint.

Table 2. Special-status Animals Potentially Occurring in the Project Area				
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Potential to be impacted by the project[b]**
short-eared owl (*Asio flammeus*)	CSSC	Year-round resident in certain parts of California; breeds regularly in the Great Basin region and locally in the Sacramento-San Joaquin River Delta, breeds periodically in the Central Coast and San Joaquin Delta.	Found in swamp lands, both fresh and salt, lowland meadows and agricultural fields. Tule patches or tall grass are needed for nesting and day time seclusion; nests on dry ground in depression concealed in vegetation.	None. Suitable habitat is not present on the project site or near the project site.
long-eared owl (*Asio otus*)	CSSC	Occurs throughout the state except in the Central Valley, in pockets along the coast and in the far central south.	Inhabits riparian bottomlands grown to tall willows and cottonwoods and belts of live oak parallel to stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks or magpies for breeding.	None. Suitable habitat is not present on the project site or near the project site. Not recorded in the CNDDB to occur within 5 miles of the project site.
bank swallow (*Riparia riparia*)	ST	Occurs primarily around the remaining natural river banks of the Sacramento and Feather Rivers in the Sacramento Valley.	Colonial nester, nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine textured/sandy soils near streams, rivers, lakes or ocean to dig nesting hole.	None. Suitable habitat is not present on the project site or near the project site.
saltmarsh common yellow throat (*Geothlypis trichas sinuosa*)	CSSC	This supspecies of the common yellow throat (*Geothlypis trichas*) is endemic to the fresh and salt water marshes of the San Francisco Bay region.	Requires thick, continuous cover down to water surface for foraging; and tall grasses, tule patches and willows for nesting.	None. Suitable habitat is not present on the project site or near the project site.

Table 2. Special-status Animals Potentially Occurring in the Project Area				
Common Name (*Scientific Name*)	**Listing Status[a]**	**Geographic Distribution in California**	**Habitat Requirements**	**Potential to be impacted by the project[b]**
Alameda song sparrow (*Melospiza melodia pusillula*)	CSSC	This California endemic subspecies of song sparrow (*Melospiza melodia*) is a resident of salt marshes bordering south arm of San Francisco Bay.	Inhabits *Salicornia* marshes, nests low in *Grindelia* bushes (high enough to escape high tides) and in *Salicornia.*	None. Suitable habitat is not present on the project site or near the project site.
Mammals				
pallid bat (*Antrozous pallidus*)	CSSC	Throughout California except high Sierra from Shasta to Kern Counties and northwest coast, primarily at lower and mid-elevations	Inhabits deserts, grasslands, shrublands, woodlands and forests; most common in open dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures, very sensitive to disturbance of roosting sites.	Low. The project site contains suitable roost and forage habitat; this species is not recorded as occurring within 5 miles of the project site in the CNDDB.
big free-tailed bat (*Nyctinomops macrotis*)	CSSC	Rare in California; found only in low lying arid areas of southern California and as a vagrant elsewhere.	Needs high cliffs or rocky outcrops for roosting, feeds principally on large moths.	Low. The project site does not include high cliffs or rocky outcrops.
Thompson's big-eared bat	State candidate for listing	Found in a patchy distribution across many habitat types	Roosts in caves or cave-like structures; roost temperature may be critical. Forages along stream edges in wooded areas.	Low. Roost habitat may not occur in the area. The project contains suitable foraging habitat.
San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)	CSSC	This California endemic is found throughout the San Francisco Bay area in grasslands, scrub and wooded areas.	Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded leaves, grass and other material. May be limited by availability of nest-building materials.	Present.

Table 2. Special-status Animals Potentially Occurring in the Project Area

Common Name (*Scientific Name*)	Listing Status[a]	Geographic Distribution in California	Habitat Requirements	Potential to be impacted by the project[b]
saltmarsh harvest mouse (*Reithrodontomys raviventris*)	FE SE	This California endemic occurs only in the saline emergent wetlands of the San Francisco Bay and its tributaries.	Pickleweed is the primary habitat of this non-burrowing mammal. It builds loosely organized nests and requires higher areas to escape flooding.	None. Suitable habitat is not present on the project site or near the project site.

[a] Status explanations:

Federal:

FE = Listed as endangered under the Federal Endangered Species Act.

FT = Listed as threatened under the Federal Endangered Species Act.

State:

SE= Listed as endangered under the California Endangered Species Act.

ST= Listed as threatened under the California Endangered Species Act.

CSSC = Species of Special Concern designated by California Department of Fish and Game

CFP = Fully Protected Species under California Fish and Game Code.

[b] Potential Occurrence explanations:

Present: Species was observed on the project site, or recent species records (within five years) from literature are known within the project area.

High: The CNDDB or other reputable documents record the occurrence of the species off-site, but within a 5-mile radius of the project area and within the last 10 years. High-quality suitable habitat is present within the project area.

Moderate: Species does not meet all terms of High or Low category. For example: CNDDB or other reputable documents may record the occurrence of the species near but beyond a 5-mile radius of the project area, or some of the components representing suitable habitat are present within or adjacent to the project area, but the habitat is substantially degraded or fragmented.

Low: The CNDDB or other documents may or may not record the occurrence of the species within a 5-mile radius of the project area. However, few components of suitable habitat are present within or adjacent to the project area.

None: CNDDB or other documents do not record the occurrence of the species within or reasonably near the project area and within the last 10 years, and no or extremely few components of suitable habitat are present within or adjacent to the project area.

CORDILLERAS MENTAL HEALTH CENTER
BIOLOGICAL CONSTRAINTS ANALYSIS

APPENDIX C

TERMINOLOGY
TRA Environmental Sciences, Inc.

1.6.1 Special-Status Species

Special-status species are plants and animals that are legally protected under the Endangered Species Act (ESA), CESA, or other such regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing. For the purposes of this report, special-status species comprise species in one or more of the categories listed below.

- Species listed or proposed for listing as threatened or endangered under the ESA (50 Code of Federal Regulations [CFR] 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the Federal Register [proposed species]).
- Species that are candidates for possible future listing as threatened or endangered under the ESA (73 Federal Register [FR] 75176, November 9, 2009).
- Species listed or proposed for listing by the state of California as threatened or endangered under CESA (14 CCR 670.5).
- Species that meet the definitions of rare or endangered under CEQA (State CEQA Guidelines, Section 15380).
- Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.).
- Plants considered by CNPS to be “rare, threatened, or endangered in California” (Lists 1B and 2).
- Animal species listed as of special concern by the California Department of Fish and Game.
- Animals fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [amphibians and reptiles]).

1.6.2 Habitat

Habitat is the natural environment of a plant or animal, and the place that is natural for the life and growth of a plant or animal.

1.6.3 Sensitive Natural Communities

Sensitive natural communities are communities that are especially diverse; regionally uncommon; or of special concern to local, state, and federal agencies. Elimination or substantial degradation of these communities would constitute a significant impact under CEQA.

1.6.4 Waters of the United States

Waters of the United States are defined for regulatory purposes in the CFR as: (1) all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters…; (4) all impoundments of waters otherwise defined as waters of the United States under the definition; (5) tributaries of waters identified in paragraphs (a)(1)–(4) of this section; (6) the territorial seas; and (7) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)–(6) of this section” (33 CFR 328.3).

1.6.5 Wetlands

Wetlands are defined for regulatory purposes in the CFR as areas “inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3, 40 CFR 230.3). To be considered subject to federal jurisdiction, a wetland must normally exhibit positive indicators for hydrophytic vegetation, hydric soil, and wetland hydrology (Environmental Laboratory 1987 and U.S. Army Corps of Engineers 2006).