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Subject: **Biological Letter Report for the Lake Jennings Park Road Project, PDS2013-TM-5578, PDS2013-ER-13-14-006; Prepared for the County of San Diego**

Ms. Ehsan:

REC Consultants, Inc. has prepared this letter report to address findings of biological surveys conducted on the 5.2 acre Lake Jennings Park Road site in Lakeside, County of San Diego, California. The objective of this report is to assess biological resources and existing conditions of the site; identify potential impacts of the proposed development to biological resources; and recommend measures to avoid or minimize impacts consistent with federal, state, and local regulations including the California Environmental Quality Act (CEQA), Biological Mitigation Ordinance (BMO), and Multiple Species Conservation Program (MSCP). The project proponent is Jeff Hamann of TOR Investments L.P., 1000 Pioneer Way, El Cajon, California 92020.

SUMMARY

The project consists of developing the entire 5.2-acre site with 20 lots, including 18 residential lots and two private streets. General biological surveys, focused sensitive plant and wildlife surveys, a wetland delineation, a survey for Quino checkerspot butterfly, an evaluation of the disturbed wetland on-site for use by sensitive riparian birds, and a wetland delineation update were performed between August 2006 and April 2013. Habitat on the Project site consists of non-native grassland, coastal sage scrub, disturbed wetland, ornamental vegetation, and disturbed land. One sensitive species was observed on-site: coastal whiptail lizard.

Project implementation will result in significant impacts (both onsite and offsite) to approximately 4.1 acres of non-native grassland, 0.2 acre of coastal sage scrub, 0.06 acre of disturbed wetland, and one coastal whiptail. These significant impacts will require mitigation, which will be provided by purchasing 2.1 acres of non-native grassland, 0.06 acre of wetland, and 0.2 acre of coastal sage scrub in a County and Wildlife Agency-approved mitigation bank within San Diego County. Mitigation for significant impacts to coastal whiptail will be provided through habitat-based mitigation, for which the non-native grassland, disturbed wetland, and coastal sage scrub mitigation acreage will be adequate. These mitigation measures, in conjunction with standard avoidance measures such as avoiding grading during avian breeding season, will reduce the project's impacts to below a level of significance.

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INTRODUCTION, PROJECT DESCRIPTION, LOCATION, SETTING

The proposed project ("Project") consists of grading the entire 5.2 acre parcel (APN 395-220-11) for residential development. This parcel has never been developed, but has been impacted over the years by channeling of water onto the site from the subdivision to the east, invasion of non-native vegetation, and disturbance by off-road cyclists and other trespassers. Annual fuel management occurs on-site in compliance with fire protection measures required by the local fire authority.

Project Description

The Project Tentative Map consists of 20 lots (18 residential lots and two private streets) that will impact the entire 5.2-acre site. Access will be provided by a new private road off Jennings Vista Drive that leads to two cul-de-sacs. Off-site street improvements will occur along Lake Jennings Park Road and Jennings Vista Drive. A 10 foot wide County Parks and Recreation trail is proposed along the southern boundary of the project above Blossom Valley Road.

Project Location and Setting

The Project site is located in the San Diego County community of Lakeside, east of State Route 67 and just north of Interstate 8, between Lake Jennings Park Road, Blossom Valley Road, and Jennings Vista Drive. A map of the regional location is provided in **Figure 1,** and the site location and vicinity are illustrated on the United States Geological Survey (USGS) 7.5' El Cajon topographic quadrangle map in **Figure 2.**

The site is bordered by Jennings Vista Drive and a mobile home park to the north; residential development to the east; Blossom Valley Road, a park-and-ride lot, and Interstate 8 ramps to the south; and Lake Jennings Park Road and residential development to the west. A commercial area consisting of a gas station and market and a fast-food facility is located to the southwest of the site. The site lies on gently sloping terrain, with a high point of approximately 782 feet above mean sea level (AMSL) near the southeastern corner and a low of approximately 700 feet AMSL in the southwestern corner. According to the *Soil Survey, San Diego Area, California* (Bowman 1973), the following soil types are present on-site: Escondido very fine sandy loam, 9 to 15 percent slopes, eroded; and Escondido very fine sandy loam, 15 to 30 percent slopes, eroded. The Escondido series consists of well-drained very fine sandy loams that have formed in place from metamorphosed sandstone, in gently rolling to hilly uplands within elevational ranges of 400 to 2,800 feet.

REGIONAL CONTEXT

The Project site, located northeast of the intersection of Lake Jennings Park Road and Interstate 8, occurs within a region that includes both extensive development and undeveloped land. Lake Jennings, a reservoir encircled by undeveloped land, is located approximately 0.4 mile to the north-northwest at its closest point. The San Diego River is approximately 1.8 miles north, within a valley that includes extensive undeveloped land and connects to El Capitan Reservoir to the east-northeast. Several parks are located in and north of the river valley. To the south and east of the Project site and Interstate 8 are the 2,638-acre Crestridge Ecological Reserve (0.5 mile southeast at its closest point) and Flinn Springs County Park (1 mile east).

The Project site falls within the Metro-Lakeside-Jamul Segment of the Multiple Species Conservation Program (MSCP) County Subarea. Crestridge Ecological Reserve is the closest Pre-Approved

Mitigation Area (PAMA), 0.5 mile southeast. Other nearby PAMAs include an area approximately 0.7 mile southeast at its closest point, another approximately 0.8 mile west (west of Lake Jennings Park Road), and other areas approximately 1.0 mile northwest and north of Lake Jennings, along El Monte Road. A very small PAMA on the east side of Lake Jennings is approximately 0.6 miles north-northeast. No other types of MSCP preserve lands, such as hard-line preserves or take-authorized areas, are mapped within a 3-mile radius of the Project site (SanGIS 2011). The regional context of the site and locations of the PAMAs are shown on an aerial photograph in **Figure 3**. As this figure illustrates, the Project site is isolated from any substantial areas of undeveloped habitat by residential and commercial development and Interstate 8. The Project is a suburban infill development.

HABITATS / VEGETATION COMMUNITIES

Existing biological resources on the Project site were investigated through field reconnaissance and literature review by REC biologists between 2006 and 2013. Literature review included CNDDB records of special-status plant and animal species within the Project USGS 7.5' quadrangle (El Cajon) and surrounding eight quadrangles (Poway, San Vicente Reservoir, El Cajon Mountain, La Mesa, Alpine, National City, Jamul Mountains, and Dulzura), SanBIOS special-status plant and animal records within a 5-mile radius of the site, recent and historical aerial photographs of the site and surrounding areas dating back to 1953 (NETR 2009), and soil maps and descriptions from the San Diego County soil survey (Bowman 1973).

A general biological survey of the Project site was conducted by REC biologist and botanist Catherine MacGregor in August 2006. Additional general biological surveys were conducted by REC biologists Mandy Meng and Victor Novik in March 2007. During these general surveys, biologists walked the site and documented biological resources, including plants, animals, and habitats. Field notes were maintained by REC biologists throughout the surveys. All on-site habitats were mapped, and all observed plant and animal species were documented. Plant species that could not be identified in the field were collected for later identification, and wildlife species were identified directly by sight or vocalizations and indirectly by scat, tracks, burrows, or nests. All observed special-status species were documented and mapped, and suitability of habitat for special-status species was evaluated.

Habitats within a 100-foot buffer around the Project site were mapped based on observation from the site or public roadways. Mapping of existing resources on the Project site was conducted on an aerial photograph scaled at 1 inch = 200 feet.

Table 1 summarizes all general and focused site surveys, and the times and weather conditions for each survey.

Table 1. Surveys Conducted on the Project Site

Date	Time	Temp (°F)	Sky	Wind (mph)	Survey Type	Personnel
8/20/2006	Begin: 0900 End: 0945	Warm	Partly cloudy	Begin: 0-5 End: 0-5	General	C. MacGregor
3/8/2007	Begin: 1400 End: 1500	Warm	Sunny	Begin: 0-5 End: 0-5	General	M. Meng, V. Novik
3/15/2007	Begin: 1030 End: 1200	Warm	Sunny	Begin: 0-5 End: 0-5	General	M. Meng, V. Novik

Table 1, continued

Date	Time	Temp (°F)	Sky	Wind (mph)	Survey Type	Personnel
4/6/2007	Begin: 0900 End: 1200	Begin: cool End: warm	Overcast to Sunny	Begin: 0-5 End: 0-5	Sensitive species, wetland delineation	M. Meng, C. Weber, V. Novik
4/6/2007	Begin: 1224 End: 1321	Begin: 68° End: 67°	Few clouds	Begin: 0-5 End: 0-5	Quino	V. Novik
4/11/2007	Begin: 1151 End: 1255	64°	Clear	Begin: 2-5 End: 2-5	Quino	V. Novik
4/19/2007	Begin: 0900 End: 0930	65°	Clear	Begin: 0-1 End: 0-1	Quino	E. Robertson
4/26/2007	Begin: 1330 End: 1400	73°	Clear	Begin: 1-3 End: 1-3	Quino	E. Robertson
5/4/2007	Begin: 1200 End: 1230	75°	Clear	Begin: 1-3 End: 1-3	Quino	E. Robertson
5/12/2010	Begin: 1000 End: 1100	Warm	Clear	Begin: 0-5 End: 0-5	General	V. Novik
4/16/2013	Begin: 0750 End: 0900	Begin: 50° End: 52°	Partly cloudy to overcast	Begin: 0-5 End: 0-5	Wetland assessment, riparian bird evaluation	C. MacGregor, H. Levine

Vegetation communities and other land cover categories were classified according to "Draft Vegetation Communities of San Diego County" (Oberbauer et al. 2008). Scientific nomenclature and common names for animal species in this letter report follow American Ornithological Union (AOU 2012) for birds, Center for North American Herpetology (CNAH 2013) for reptiles and amphibians, Baker et al. (2003) for mammals, and Powell and Hogue (1979) for insects, as well as the San Diego Natural History Museum butterfly, spider, amphibian, reptile, bird and mammal checklists for subspecies (SDNHM 2002, 2005, and undated). Taxonomy and scientific nomenclature for plants follow the Jepson Manual, second edition (Baldwin et al. 2012) and common names are primarily from Rebman and Simpson (2006), with some rare plant common names from the California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2013).

During REC's site surveys, five vegetation communities or other land cover categories were observed on-site: non-native grassland, coastal sage scrub, disturbed wetland, disturbed land, and ornamental vegetation. Habitats on-site and within the 100-foot buffer are shown in **Figure 4** and are described below. A list of all 83 observed plant taxa during REC's surveys is provided in **Appendix A**, and a list of all 39 observed animal taxa, with estimated numbers, is provided in **Appendix B**.

Non-native grassland (County Habitat Code 42200), a Tier III habitat, covers approximately 3.9 acres on-site, and is dominated by annual non-native grasses such as ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* subsp. *rubens*), oats (*Avena* sp.), soft chess (*Bromus hordeaceus*), and rat-tail fescue (*Festuca myuros*), as well as broad-leaf non-native species such as short-pod mustard (*Hirschfeldia incana*), long-beak filaree (*Erodium botrys*), bristly ox-tongue (*Helminthotheca echioides*), and wild radish (*Raphanus sativus*), and limited native species such as doveweed (*Croton setiger*), blue-eyed grass (*Sisyrinchium bellum*), and sand-aster (*Corethrogyne filaginifolia*) and occasional native shrubs such as California buckwheat (*Eriogonum fasciculatum* var. *fasciculatum*). Herbaceous cover ranges from sparse at the edges of disturbed areas to dense and tall close to the disturbed wetland. Included within the non-native grassland are two mature coast live oaks; the understory below these oaks contains predominantly non-native weedy plants like those in the rest of

the non-native grassland. A black willow in the northwestern corner of the site is also included in the non-native grassland because it is not associated with a wetland and has an understory of predominantly non-native weedy species like the surrounding grassland. All plants observed in non-native grassland on-site are included in **Appendix A**.

Wildlife observed in and over non-native grassland on-site include a variety of invertebrates such as ants (Family Formicidae), grasshoppers (Family Acrididae), honey bee (*Apis mellifera*), and several common butterfies such as Behr's metalmark (*Apodemio mormo virgulti*), funeral duskywing (*Erynnis funeralis*), and western pygmy-blue (*Brephidium exilis*); lizards such as common side-blotch (*Uta stansburiana*) and western fence lizard (*Sceloporus occidentalis*); birds such as American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), and California towhee (*Melozone crissalis*); and mammals such as Botta's pocket gopher (*Thomomys bottae*), and desert cottontail (*Sylvilagus audubonii*). All wildlife observed in or over non-native grassland on-site are listed in **Appendix B**.

Non-native grassland is considered sensitive by the County because of its importance for foraging raptors. The non-native grassland habitat on-site is of low quality because of historic and on-going disturbance, including required fuel maintenance that promotes weedy non-native species such as short-pod mustard and radish. It has little conservation value because it is relatively small and isolated from larger habitat areas within a suburban setting.

Diegan coastal sage scrub (County Habitat Code 32510), a Tier II habitat, covers approximately 0.1 acre in the southwestern corner of the site. This coastal sage scrub, which likely resulted from adjacent hydroseeding on the slope associated with Blossom Valley Road, is dominated by coastal sagebrush (*Artemisia californica*), spreading goldenbush (*Isocoma menziesii* var. *menziesii*), and California buckwheat, with smaller amounts of deerweed (*Acmispon glaber*), white sage (*Salvia apiana*), fascicled tarweed (*Deinandra fasciculata*), and needlegrass (*Stipa* sp.), and abundant non-native grasses and forbs such as those growing in the adjacent non-native grassland. Habitat quality is poor due to historic disturbance. All plant species observed in coastal sage scrub on-site are included in **Appendix A**.

The only wildlife species observed in coastal sage scrub on-site were invertebrates such as grasshoppers (Family Acrididae) (see **Appendix B**).

The coastal sage scrub on-site has little conservation value in terms of regional or local importance because it is so small, was likely generated by hydroseeding, is surrounded and isolated by development, and has been heavily disturbed by bicyclists and other trespassers over the years.

Disturbed wetland (County Habitat Code 11200), a Tier I habitat, occupies approximately 0.06 acre between the culvert at the central eastern edge of the site, and the center of the site. The County habitat category of disturbed wetland applies to areas that are permanently or periodically inundated by water, which have been significantly modified by human activity (Oberbauer et al. 2008). The disturbed wetland on-site consists of a small depression below the culvert and a short channel leading out of the depression, surrounded by trees and shrubs. This area, including the surrounding shrubs and trees, was initially classified as southern willow scrub, but the few willows (*Salix laevigata, S. lasiolepis*) and other native species growing along the depression and channel are outnumbered by non-native ornamental trees and shrubs such as eucalyptus (*Eucalyptus* sp.), Shamel ash (*Fraxinus uhdei*), Chinese elm (*Ulmus parvifolia*), Mexican fan palm (*Washingtonia robusta*), and acacias (*Acacia* sp.)

that are not wetland-associated species, and were therefore removed from the riparian/wetland habitat polygon. The refined wetland polygon includes the small depression and channel below the culvert and the adjacent riparian trees and shrubs such as willows and mule-fat (*Baccharis salicifolia*). The sparse understory in the upper (eastern) end of the channel consisted primarily of non-native annual weeds such as four-leaf allseed (*Polycarpon tetraphyllum*) and annual bluegrass (*Poa annua*) during the April 2013 site visit, although more hydrophytic species such as cattails (*Typha* sp.) and iris-leaf rush (*Juncus xiphioides*) were observed in the channel in the past. The depression below the culvert does not hold water all year. Based on the anthropogenic water source and dominance of non-natives within the channel, this area is best classified as disturbed wetland and is of low quality.

Wildlife species observed in the disturbed wetland included mosquitoes (Family Culicidae), a coastal whiptail (*Aspidoscelis tigris stejnegeri*), Anna's hummingbird, black phoebe, house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), and yellow-rumped warbler (*Setophaga coronata*). A focused survey was conducted on April 16, 2013 between 7:50 and 9:00 AM to evaluate use of the disturbed wetland by riparian-associated bird species, such as the state and federal endangered least Bell's vireo (*Vireo bellii pusillus*). No birds with a strong affinity to riparian habitat were detected in the disturbed wetland. The area was judged unsuitable for least Bell's vireo because it not true riparian habitat (there is no stream except when the depression below the culvert overflows) and lacks the combination of dense riparian canopy and dense riparian understory used by the vireo. A complete list of wildlife and estimated numbers is provided in **Appendix B**.

Ornamental (County Habitat Code 11300) is a subtype of Tier IV disturbed land that is vegetated by escaped or planted ornamental species. The site supports many ornamental trees and shrubs, especially along the northern and eastern edges, and along the channel from the culvert at the east edge of the site (see description of disturbed wetland). Ornamental species observed on-site include eucalyptus, Shamel ash, ornamental pine (*Pinus* sp.), Peruvian pepper (*Schinus molle*), Chinese elm, Mexican fan palm, and acacias. Ornamental vegetation covers 0.4 acre on-site.

Wildlife species observed in ornamental vegetation on-site include Bullock's oriole (*Icterus bullockii*), hooded oriole (*Icterus cucullatus*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), and western scrub-jay (*Aphelocoma californica*). A complete list of wildlife and estimated numbers is provided in **Appendix B**.

Although these ornamental trees can attract a variety of birds, ornamentals are not considered to have conservation value because they are non-native and displace more ecologically important native vegetation.

Disturbed land (County Habitat Code 11300), a Tier IV land cover category, occurs on approximately 0.7 acre of trails, bike ramps, and other areas of essentially unvegetated soil. These areas of disturbed land have been repeatedly compacted by human use, and, in the case of a residential fuel management zone in the southeast corner, repeatedly cleared. Disturbed land is almost entirely devoid of vegetation but may contain low numbers of plants from adjacent vegetation communities, such as shortpod mustard.

No wildlife species were observed on disturbed land on-site.

SPECIAL-STATUS SPECIES

For the purposes of this report, a sensitive or special-status plant or animal is any taxon (species, subspecies, or variety) that is officially listed by the State of California or the federal government as Endangered, Threatened, or Rare, or a candidate for one of those listings; classified as Fully Protected, Species of Special Concern, or Watch List animal species by the California Department of Fish and Wildlife (CDFW); included in California Rare Plant Ranks (CRPR) 1 through 4; or included in the County of San Diego Sensitive Plant Lists A through D or Sensitive Animals Groups 1 or B2.

Lists of special-status plants and animals with the potential to occur on the Project site were generated from the CNDDB RareFind5 database, SanBIOS database (County of San Diego 2011), and a list provided by the County of San Diego. The resulting lists include any special-status species documented within the Project site's USGS 7.5' quadrangle (El Cajon) or surrounding eight quadrangles (Poway, San Vicente Reservoir, El Cajon Mountain, La Mesa, Alpine, National City, Jamul Mountains, and Dulzura), within an applicable elevation range, as well as any other species requested by the County for this Project. **Appendix C** provides information on these special-status plant species with an evaluation of the potential for each species to occur on-site, based on CNDDB and SanBIOS search results, the CNPS Inventory of Rare and Endangered Plants (on-line version, 2013), Reiser's "Rare Plants of San Diego County" (2001), field observations, and professional botanical experience. **Appendix D** provides information on these animal species, and an evaluation of the potential for each species to occur on-site, based on species requirements, CNDDB and SanBIOS search results, the San Diego Bird Atlas (Unitt 2004), other biological reports conducted in this area, and field observations.

Focused surveys were conducted in April 2007 to determine if sensitive species were present on-site. Methodology for the focused sensitive plant survey, based on CNPS botanical survey guidelines, consisted of walking transects spaced closely enough that all of the site was directly viewed. The focused sensitive animal survey entailed walking transects, similar to the focused sensitive plant survey but conducted separately.

Additional sensitive plant species surveys were not conducted in 2013-2014 due to drought conditions and the fact that the site, when visited in 2013, was increasingly disturbed by pedestrian and bicyclist trespassing and trash dumping. On-site conditions were more optimal for sensitive plant species detection in 2007.

In April and May 2007, REC biologist Victor Novik (Permit TE 069534-0) and REC principal biologist Elyssa Robertson (Permit TE 78674-1) conducted surveys for Quino checkerspot butterfly (*Euphydryas editha quino*) in accordance with the USFWS protocol. No Quino checkerspot butterflies or associated host plants were observed on-site. The 2007 Quino checkerspot butterfly report is provided in **Appendix E**.

The 2007 Quino checkerspot butterfly surveys resulted in negative findings for both host plants and the butterfly. Only five butterfly species, represented by very small individual numbers, were identified on-site. The federally permitted biologists concluded that the site was unlikely to support Quino checkerspot butterflies and that the site is not likely to be used as a corridor for this species. The closest observed Quino checkerspot butterfly documented in SanBIOS was located 4.6 miles away to the southeast. That particular observation was made in 1957. The second closest documented observation was 5.3 miles to the northwest in 2009. Based on more recent site visits, the quality of the

site has not improved; in fact, more areas of the site have been disturbed by trespassing, illegal dumping, and the expanded construction of the off-road cycle area. None of the Quino host plants listed in the February 2014 USFWS Quino Checkerspot Butterfly Survey Protocol (*Plantago erecta, Plantago patagonica, Antirrhinum coulterianum, Cordylanthus rigidus, Castilleja exserta,* and *Collinsia heterophylla*) have ever been detected on-site during any of REC's ten site survey days, including in 2010, which had 98% average rainfall (SDCWA 2014). No preferred nectar plants such as *Lasthenia* spp., *Layia* spp., *Ericameria* spp., *Cryptantha* spp, and *Allium* spp. (USFWS 2002) have been observed on-site during the surveys. Based on the lack of host plants and nectar plants documented over a period of eight years and the negative results of the protocol survey, additional Quino checkerspot butterfly surveys are not warranted on this infill property.

No special-status plants were observed on-site. One non-listed special-status animal was observed on-site: coastal whiptail. Based on REC's analysis, six special-status animal species have moderate potential to occur on-site. All of these species are discussed in the following subsections.

Observed special-status species

Coastal whiptail (*Aspidoscelis tigris stejnegeri*) does not have federal or state special status but is included in the County's Sensitive Animals List Group 2. This subspecies of the tiger whiptail occurs in coastal southern California, where much of its shrubland habitat has been developed or fragmented. One tiger whiptail was observed on-site in 2010 within the disturbed wetland area, as shown in **Figure 4**. A copy of the CNDDB form completed for this species is included in **Appendix D**.

Special-status species with moderate to high potential to occur on or adjacent to the site

Based on REC's 2006, 2007, 2010, and 2013 site surveys, CNDDB and SanBIOS records searches, and evaluation of site conditions, the following plant and animal species have moderate potential to occur on-site:

San Diego sunflower or San Diego viguiera (*Bahiopsis laciniata*, formerly *Viguiera laciniata*) is a yellow-flowered shrub with a CRPR of 4.2 and no state or federal status. This distinctive shrub is easy to identify at any time of year and was not observed on-site, but was observed in coastal sage scrub to the south of the site. Due to its proximity, there is moderate potential that San Diego sunflower could spread onto the Project site.

Red-shouldered hawk (*Buteo lineatus*) is not a state or federal special-status species but is included in the County's Sensitive Animals List Group 1 and is protected as a raptor under California Fish and Game Code. According to the San Diego Bird Atlas, red-shouldered hawks are widespread over the coastal slope of San Diego County; while they were originally uncommon residents of riparian woodlands, they have spread and adapted to many areas with eucalyptus and other trees. Red-shouldered hawk has moderate potential to occur on-site because, although none was observed during any of REC's ten site visits, the site includes tall trees and this species is widespread.

Cooper's hawk (*Accipiter cooperii*) is on the State of California Watch List and is included in the County's Sensitive Animals List Group 1. Cooper's hawks have adapted to urban and suburban settings and increased in abundance since the 1980s, and are now widespread over the San Diego County coastal slope wherever there are trees. Residential areas with bird feeders that attract small birds also attract Cooper's hawks, which feed on the small birds. Cooper's hawk has moderate

potential to occur on-site because, although none was observed during any of REC's ten site visits, this species is widespread, the site includes tall trees, and nearby backyards likely include bird feeders.

Orangethroat whiptail (*Aspidoscelis hyperythra*), a State of California Species of Special Concern and County Sensitive Animals List Group 2 species, lives in semi-arid brushy areas that typically have loose soil and rocks, including washes, rocky hillsides, and coastal chaparral and scrub. Because suitable habitat occurs on-site, the species is documented in the Project CNDDB quadrangle, and an unidentified whiptail was observed in coastal sage scrub to the south of the site, orangethroat whiptail has moderate potential to occur on the Project site.

Barn owl (*Tyto alba*) is not a state or federal special-status species but is included in the County's Sensitive Animals List Group 2, and is also protected as a raptor under California Fish and Game Code. Barn owls nest in cavities in native trees or on cliff ledges, but have adapted to suburban and urban environments and will also nest in buildings, among the bases of palm fronds, and in nest boxes. According to the San Diego Bird Atlas, this is the owl most adapted to developed environments in the County. Because the Bird Atlas indicates that barn owls have been documented in Bird Atlas squares around the Project site's square, and the site supports trees that could provide roosts, barn owl has moderate potential to occur on-site.

Sharp-shinned hawk (*Accipiter striatus*) is on the State of California Watch List and is included in the County's Sensitive Animals List Group 1. This hawk is a widespread but uncommon winter visitor in San Diego County, especially along the coastal slope. It uses a variety of habitats, but prefers areas with trees or tall shrubs and is attracted to any place that concentrates small prey birds. Because the site is located next to residential properties that may have bird feeders, and because numerous trees and shrubs are present in the area, sharp-shinned hawk has moderate potential to use the site in winter.

Western bluebird (*Sialia mexicana*) is not a state or federal special-status species, but is included in the County's Sensitive Animals List Group 2. According to the San Diego Bird Atlas, the western bluebird is a common resident of the foothills and mountains in San Diego County, especially where meadows occur among oaks and pines; it also appears to be spreading beyond its original habitat type into urban areas with mature trees and wide lawns. Although this species is in decline over much of its range due to loss of nesting cavities from logging and fire suppression, it appears to be holding its own and even extending its breeding range within San Diego County. Because the Project site includes trees growing within grassland, western bluebird has moderate potential to occur on-site.

Western yellow bat (*Lasiurus xanthinus*) is a State of California Species of Special Concern that most commonly occurs in desert palm oases, but is increasingly found in urban areas that have palm trees. This bat roosts in hanging dead palm fronds and subsists on insects. Because the site and surrounding properties support Mexican fan palms and this species appears to be adapting to urban or suburban conditions, western yellow bat has moderate potential to occur on the Project site.

Raptor foraging and migratory birds

Raptors are protected under California Fish and Game Code Section 3503.5, which specifically protects all birds in the orders Falconiformes or Strigiformes (raptors, including owls and turkey vultures). It is unlawful to take, possess or destroy any such raptors or their nests and eggs except as otherwise provided in the Fish and Game Code. No raptors were observed on or over the site during any of REC's ten site visits, but the site could potentially serve as a hunting/foraging ground for

raptors because it supports prey animals such as gophers and rabbits, and numerous trees for raptor perching; therefore, the site likely has moderate value as raptor hunting/foraging land.

California Fish and Game Code Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant to the Code, and the federal Migratory Bird Treaty Act prohibits the killing or transport of native migratory birds, or any part, nest, or egg or any such bird unless allowed by another regulation (such as for "game" birds), Therefore, all native, non-game birds (except for wrentit) on the Project site are protected, and the nests and eggs of all native non-game birds are protected, even if these birds are not special-status or otherwise protected.

Large mammal use

No evidence of use by large mammals including mule deer (*Odocoileus hemionus*) and mountain lion (*Puma concolor*), such as scat or deer laydown areas, was found during REC's surveys. The site is likely too isolated within suburban development to support large mammals.

JURISDICTIONAL WETLANDS AND WATERWAYS

The County of San Diego exercises control over wetlands through its Resource Protection Ordinance (RPO), CDFW and the State of California regulate certain streams, lakes, and wetlands through the Fish and Game Code and the Porter-Cologne Water Quality Control Act, and the United States Army Corps of Engineers (USACE) regulates waters of the United States (US) and associated wetlands protected by the Clean Water Act. Drainages, as possible wetlands or waters, are potentially subject to regulation by these agencies. The Project site supports a small depression and short channel that warranted investigation for jurisdictional status. This feature begins at the outfall of a culvert that apparently channels street runoff from the housing development upslope to the east. Water ponds in the depression at the culvert, and then flows downslope through a narrow channel that disappears near the middle of the site.

A review of historical aerial photographs of the Project site (NETR 2009) shows that as far back as 1981, a strip of trees and/or shrubs with visibly greater biomass than the surrounding vegetation was present in the same location as the current culvert depression and channel, and the adjacent subdivision was already constructed. In aerial photographs from 1971 and 1968 the adjacent subdivision was not yet built, and there is no sign of the drainage - the area appears to contain shrubs surrounded by grassland, with no visual signature of a channel or wetland. Even earlier photographs from 1964 and 1953 show that there may have been a topographic change near the current wetland location, but it does not appear to be a drainage channel and curves toward the north, which is uphill, rather than heading to the west/southwest as topography would currently direct flow. These aerials indicate that the on-site wetland only developed because the adjacent subdivision's culvert began channeling flow onto the site.

A jurisdictional delineation was performed on the Project site by Victor Novik on April 6, 2007. Methodology consisted of evaluating on-site drainages and wetlands according to the USACE, CDFW, and RPO guidelines. The jurisdictional delineation was updated in 2013 to reflect changes in federal and state guidance. The updated delineation report is provided in **Appendix F**. A summary of the results for each is provided below.

The **USACE** has jurisdiction over waters of the US and wetlands adjacent to waters of the US. Waters of the US must have a bank with an ordinary high water mark, and wetlands must have three wetland parameters (hydric soil, predominantly hydrophytic vegetation, and hydrology). The culvert area and channel were evaluated for USACE jurisdictional status using the USACE wetland delineation method in April 2007. Three soil pits were created along the channel, and a USACE data sheet was completed at each pit location to document soil conditions, hydrology, and vegetation. The depression and channel did not qualify as USACE-jurisdictional wetlands due to the lack of hydric soil, although predominantly hydrophytic vegetation and evidence of wetland hydrology were present at that time. The short channel has an ordinary high water mark for a length of approximately 210 feet before it fades away near the middle of the site. The depression and short channel are isolated, as indicated by the lack of a channel with an ordinary high water mark connecting the wetland area to any waters of the US. It is possible that during major flow events, water sheet-flows from the small channel over the site, to a drainage ditch that runs parallel to Lake Jennings Road; however, any such flow is apparently inadequate to make or sustain a channel with ordinary high water mark, and therefore, this is an isolated erosional channel and not USACE-jurisdictional. More detailed discussion is provided in the jurisdictional delineation report in **Appendix F**.

The State of California has jurisdiction through the **Porter-Cologne Water Quality Control Act** and State Resolution 2008-0026 over Waters of the State and wetlands, and through **CDFW** over streams that have a channel with bed and banks, and lakes. The depression and short channel do not qualify as Waters of the State because they are a de facto storm water detention basin below a culvert, and storm water detention basins are specifically exempted; in addition, the lack of hydric soils means that the disturbed wetland fails to qualify as a jurisdictional wetland according to the State's draft definition. Since the depression has only an abbreviated channel with bed and banks that dead-ends on-site and is isolated, it does not qualify as a stream and does not fall under jurisdiction of CDFW. Review of historic aerials confirmed that this is not the damaged remains of a previously connected drainage. Therefore, the ponding area and short channel on-site do not fall under jurisdiction of the State of California.

RPO defines "wetlands" as lands that periodically support a predominance of hydrophytes, contain predominantly undrained hydric soil, or are an ephemeral or perennial stream with a predominantly non-soil substratum. However, the RPO definition of a wetland is qualified to exclude lands that have those wetland attributes solely due to man-made structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of Planning and Land Use determines that they (i) have negligible biological function or value as wetlands; (ii) are small and geographically isolated from other wetland systems; (iii) are not vernal pools; and, (iv) do not have substantial or locally important populations of wetland dependent sensitive species. REC prepared a separate letter to the County of San Diego dated May 21, 2013, which provided evidence that the small depression and short channel are the result of water flowing onto the site from the culvert and provided supporting evidence for items (i) through (iv). REC's letter was accepted by the County, and the depression and channel were determined to not be RPO wetlands. REC's letter and the County reply are provided in Attachment 4 of the jurisdictional delineation report in **Appendix F** of this report.

OTHER UNIQUE FEATURES / RESOURCES

Based on a review of aerial photography (see **Figure 3**), the Project site has no connection to any wildlife corridors or linkages. The site is surrounded by and isolated within residential development,

commercial development, and roads/highways. There appears to be no possible wildlife corridor to any other open space. The site lacks unique features or resources.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

Impacts to biological resources can be categorized as direct, indirect, or cumulative. Direct impacts are a result of Project implementation, and generally include loss of vegetation, special-status habitats, and plant and animal populations; introduction of non-native species which may outcompete and displace native vegetation; activity-related wildlife mortality; loss of foraging, nesting, breeding, or burrowing habitat; and fragmentation of wildlife corridors. Indirect impacts occur as a result of the increase in human encroachment in the natural environment and include off-road vehicle use, which impacts special-status plant and animal species; harassment and/or collection of wildlife species; wildlife predation by domestic animals that intrude into open space areas; and increased wildlife mortality along roads.

Figure 5 depicts direct impacts to biological resources that would occur from implementation of the Project. Direct and indirect Project impacts to habitats and special-status resources are discussed in the following sections.

Direct Impacts

Implementation of the Project will directly impact the entire to 5.2 acre site, consisting of 3.9 acres of non-native grassland, 0.1 acre of coastal sage scrub, 0.06 acre of disturbed wetland, and 1.1 acres of disturbed and ornamental area. Off-site impacts occur due to frontage improvements associated with Lake Jennings Park Road, Jennings Vista Drive and a 10 foot wide County Parks and Recreation trail along the southern boundary of the project above Blossom Valley Road. Off-site impacts consist of 0.2 acre of non-native grassland, 0.1 acre of coastal sage scrub, and 0.2 acre of disturbed and ornamental. Habitat impacts resulting from implementation of the Project are summarized in **Table 2**.

Table 2. Habitat/Vegetation Communities and Impacts

Vegetation Community	Existing (acres)	On-site Impacts (acres)	Off-site Impacts (acres)	Total Impacts (acres)	Mitigation Ratio	Off-site Mitigation Required (acres)
Non-Native Grassland (County Habitat Code 42200)	3.9	3.9	0.2	4.1	0.5:1*	2.1
Disturbed Wetland (County Habitat Code 11200)	0.06	0.06	-	0.06	1:1*	0.06
Diegan Coastal Sage Scrub (County Habitat Code 32510)	0.1	0.1	0.1	0.2	1:1*	0.2
Disturbed Land (County Habitat Code 11300)	0.7	0.7	0.1	0.8	-	-
Ornamental (County Habitat Code 11300)	0.4	0.4	0.05	0.5	-	-
TOTAL	**5.2**	**5.2**	**0.4**	**5.6**		**2.4**

*As long as mitigation land is within a pre-approved mitigation area. Mitigation ratios will increase if mitigation land is located outside a pre-approved mitigation area.

Impacts to 4.1 acres of non-native grassland, 0.06 acre of disturbed wetland, and 0.2 acre of coastal sage scrub are significant and require mitigation.

The Project is not expected to impact any special-status plants because none were found and none have high potential to occur on-site.

The Project will directly impact one coastal whiptail; this impact is significant and requires mitigation.

Red-shouldered hawk, Cooper's hawk, barn owl, and sharp-shinned hawk were not observed during REC's surveys but have moderate potential to occur on-site; therefore, loss of raptor foraging land was evaluated as a potentially significant impact to these raptors. Because no raptors were seen on or over the site during REC's ten site visits, and the site has only moderate potential to support foraging raptors, impacts to raptors would be less than significant.

Common wildlife such as gophers and cottontails would be directly impacted by the Project; however, these impacts will be addressed through habitat mitigation and are not considered significant.

The Project will not result in significant impacts to any wildlife corridors, linkages, or wildlife nursery sites.

Indirect Impacts

Because no special-status species have high potential to occur in the immediate Project area due to its location in a developed suburban setting, the Project is not expected to cause significant indirect impacts to any special-status plants or animals, or any wildlife corridors, linkages, or wildlife nursery sites. Water quality and air quality in the Project area will be protected from significant indirect impacts by design features that would reduce environmental impacts, such as Best Management Practices that will be included in the Storm Water Pollution Prevention Plan.

Proposed Mitigation

Because the Project will result in significant direct impacts to non-native grassland, disturbed wetland, coastal sage scrub, and coastal whiptail, mitigation will be required.

Mitigation for significant impacts to Tier III non-native grassland and Tier II coastal sage scrub will consist of purchasing 2.1 acres of non-native grassland and 0.2 acre of coastal sage scrub within a County- and Wildlife Agency-approved mitigation bank in the County Subarea. Mitigation for significant impacts to 0.06 acre of anthropogenic disturbed wetland will be mitigated by purchase of 0.06 acre of wetland within an approved mitigation bank in San Diego County or at the Sloane Canyon Open Space with the approval of the Director of Planning & Development Services. See Appendix G for a summary of proposed mitigation strategies.

Mitigation for impacts to one coastal whiptail will be provided via habitat-based mitigation: the non-native grassland, coastal sage scrub, and disturbed wetland mitigation acreage will also serve as whiptail mitigation acreage.

Avoidance Measures

In addition to the mitigation measures and design features described above, the Project would incorporate these avoidance measures to prevent additional impacts:

- All clearing and grubbing of vegetation and/or grading will occur outside the avian breeding season (February 1 to August 31, or sooner if a qualified biologist demonstrates to the satisfaction of the County that all nesting is complete).
- If construction (other than vegetation clearing and grubbing) must occur during the breeding season, pre-construction surveys should be performed by a County-approved biologist within 10 calendar days prior to the start of construction to determine the presence of absence or nesting birds within 300 feet of the impact area. If nesting birds are detected, the County shall be contacted to request permission and discuss the potential impact minimization measures to be implemented.
- Project-related landscaping shall not include exotic plant species that may be invasive to native habitats. Invasive exotic plant species not to be used include those listed on the California Invasive Plant Council's Invasive Plant Inventory.

CUMULATIVE IMPACTS

Cumulative impacts occur as a result of ongoing direct and indirect impacts for unrelated projects within a geographic area, and are assessed on a regional basis to determine the overall effect of numerous activities on a special-status resource over a larger area. As discussed above, the Project would result in significant impacts to non-native grassland, disturbed wetland, coastal sage scrub, and whiptails. These impacts would contribute to cumulative impacts to special status plants and wildlife.

Within the regulatory context, potential cumulative impacts should be offset by the preservation of habitat associated with this and other projects in conformance with the MSCP and BMO. As described by the 1998 MSCP implementing agreement, "the MSCP is a comprehensive, long-term habitat conservation plan for the Covered Species which addresses the needs of multiple species and the preservation of natural vegetation communities. The MSCP addresses the potential impacts of urban growth, natural habitat loss and species endangerment and creates a plan to mitigate for the potential loss of Covered Species and their habitat due to the direct and indirect impacts of future development of both private and public lands within the MSCP Area."

A project can still have significant cumulative effects even if it complies with the MSCP. However, in this case, the loss of a small area of non-native grassland, a very small area of anthropogenic disturbed wetland, and a very small area of coastal sage scrub within this substantially developed area is unlikely to be cumulatively significant. Because this Project will comply with the MSCP Subarea Plan and BMO and because it is essentially an infill project within a substantially developed area, potential cumulative impacts will be below a level of significance.

This concludes REC's biological letter report for the Lake Jennings Park Road site. Please do not hesitate to contact REC with any questions.

Sincerely,

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Catherine MacGregor
Senior Biologist and Botanist

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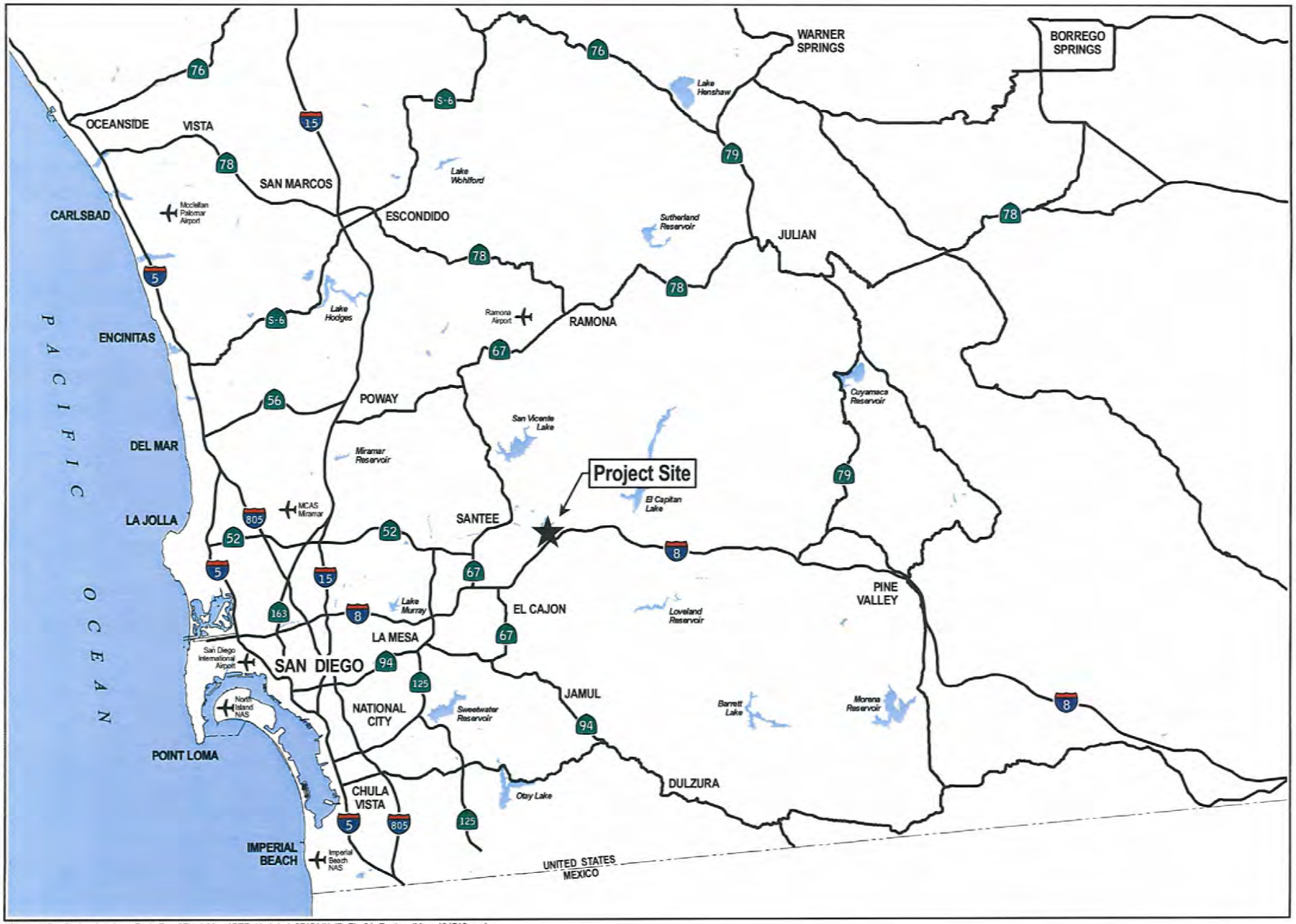
ATTACHMENTS

Figure 1. Regional Location
Figure 2. Vicinity Map
Figure 3. Regional Context
Figure 4. Biological Resources
Figure 5. Project Impacts

Appendix A. Plants Observed on the Lake Jennings Park Road Site
Appendix B. Animals Observed on the Lake Jennings Park Road Site
Appendix C. Sensitive Plants with the Potential to Occur on the Lake Jennings Park Road Site
Appendix D. Sensitive Animals with the Potential to Occur on the Lake Jennings Park Road Site and copy of coastal whiptail CNDDB form
Appendix E. 2007 Quino Checkerspot Butterfly Report
Appendix F. 2013 Jurisdictional Delineation Report with Attachments 1-4
Appendix G. Mitigation Options / Proposals

FIGURES



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R·E·C Consultants, Inc.

Regional Location Map

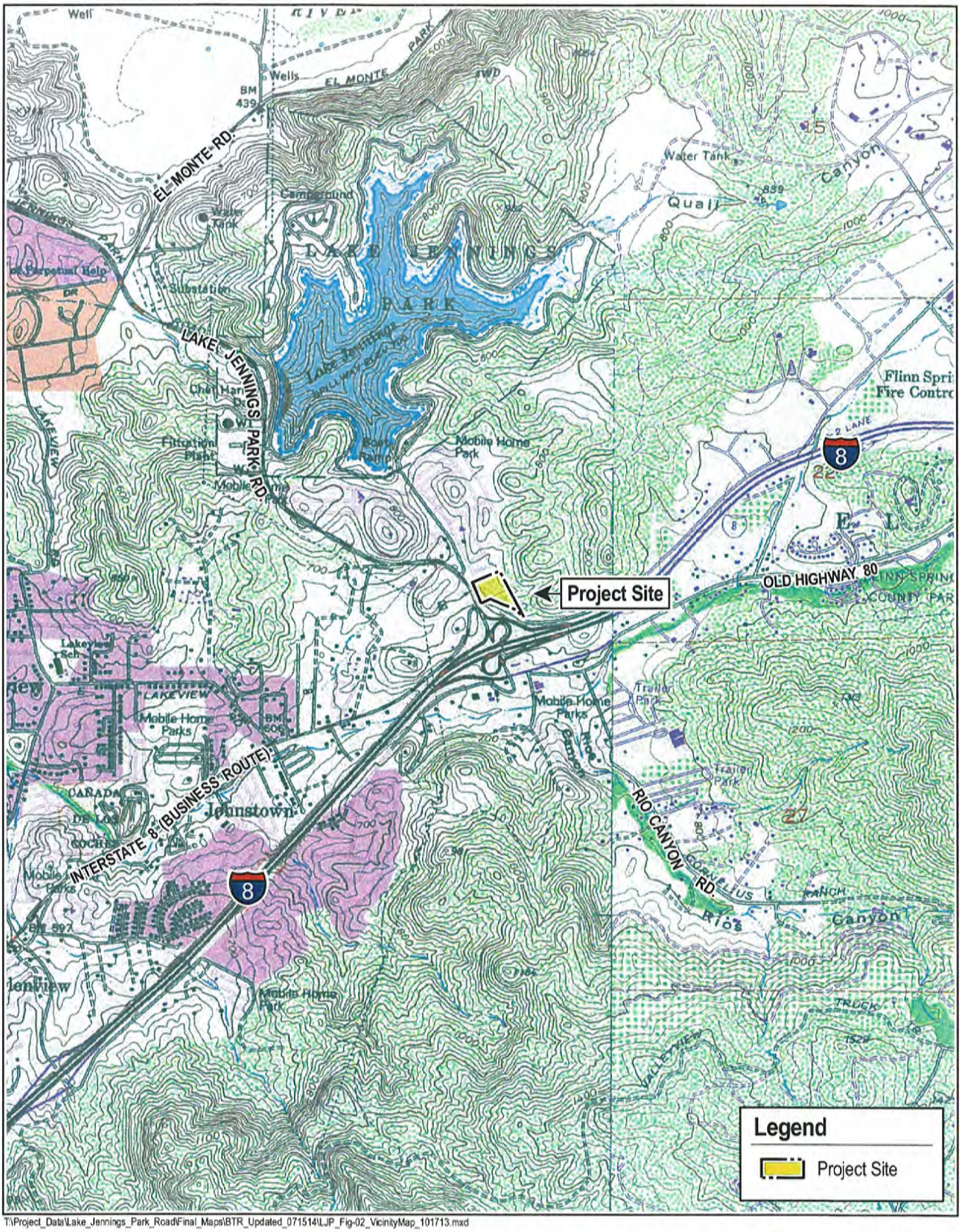
LAKE JENNINGS PARK ROAD

Miles 0 4 8

Source: SANGIS Land Use GIS Database, 2011.

FIGURE 1

July 2014



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R·E·C Consultants, Inc.

Vicinity Map

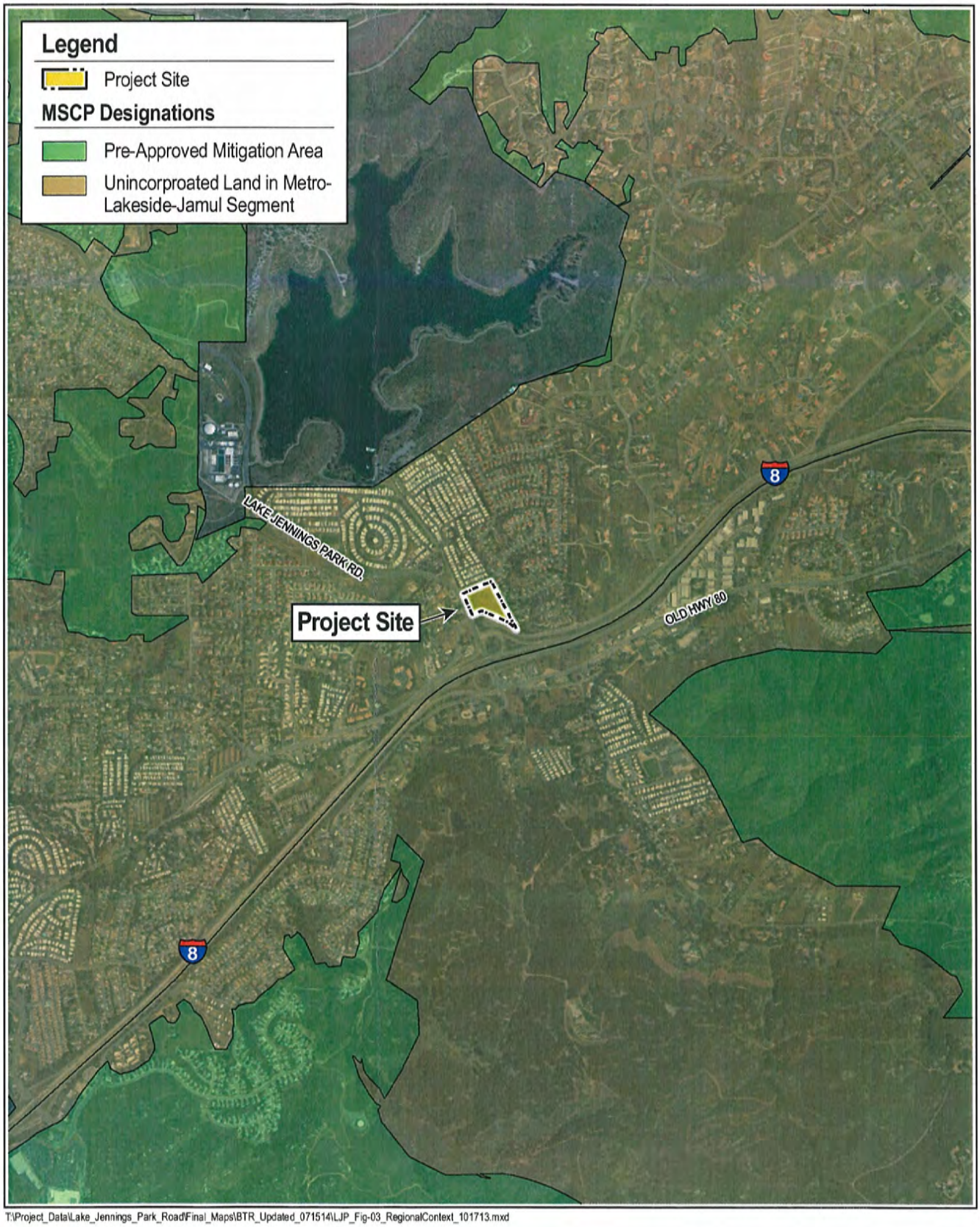
LAKE JENNINGS PARK ROAD

0 1,000 2,000 Feet

Source: CaSIL, USGS 7.5 Minute Quadrangle Mosaic o_se0508.sid.

FIGURE 2

July 2014



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Regional Context

LAKE JENNINGS PARK ROAD

0 1,000 2,000 Feet

Source: CASIL Quadrangle Mosaics, 2013.

FIGURE 3

July 2014

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Biological Resources

LAKE JENNINGS PARK ROAD

0 50 100 Feet

Source: Google, 2010.

FIGURE 4

July 2014

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Project Impacts

LAKE JENNINGS PARK ROAD

0 50 100 Feet

Source: Google, 2010.

FIGURE 5

July 2014

APPENDICES

APPENDIX A PLANTS OBSERVED ON THE LAKE JENNINGS PARK ROAD SITE			
Species Name	**Common Name**	**Family**	**Habitat**
Acacia sp.*	Acacia	Fabaceae	ORN
Acmispon glaber	deerweed	Fabaceae	CSS, NNG
Ambrosia psilostachya	western ragweed	Asteraceae	DW, NNG
*Anagallis arvensis**	scarlet pimpernel, poor man's weatherglass	Primulaceae	DW
Artemisia californica	coastal sagebrush	Asteraceae	CSS, NNG
Atriplex sp.*	saltbush	Chenopodiaceae	NNG
*Avena fatua**	wild oat	Poaceae	NNG
Baccharis pilularis subsp. *consanguinea*	chaparral broom, coyote brush	Asteraceae	DW, NNG
Baccharis salicifolia subsp. *salicifolia*	mule-fat, seep-willow	Asteraceae	DW
Baccharis sarothroides	broom baccharis	Asteraceae	NNG
Bothriochloa barbinodis	cane bluestem	Poaceae	NNG
*Brassica nigra**	black mustard	Brassicaceae	NNG
*Bromus diandrus**	ripgut grass	Poaceae	CSS, NNG
*Bromus hordeaceus**	soft chess	Poaceae	NNG
Bromus madritensis subsp. *rubens**	red brome, foxtail chess	Poaceae	CSS, DW, NNG
Carduus pycnocephalus subsp. *pycnocephalus**	Italian thistle	Asteraceae	DW
*Centaurea melitensis**	tocalote	Asteraceae	CSS, NNG
*Chenopodium album**	lamb's quarters	Chenopodiaceae	DIS
Corethrogyne filaginifolia	sand-aster	Asteraceae	NNG
Crassula connata	pygmyweed	Crassulaceae	NNG
Croton setiger	doveweed	Euphorbiaceae	CSS, NNG
*Cynodon dactylon**	Bermuda grass	Poaceae	NNG
*Cyperus involucratus**	African umbrella plant	Cyperaceae	DW
Deinandra fasciculata	fascicled tarweed	Asteraceae	CSS, NNG
Distichlis spicata	saltgrass	Poaceae	NNG
Eriogonum fasciculatum var. *fasciculatum*	coast California buckwheat	Polygonaceae	CSS, NNG
*Erodium botrys**	long-beak filaree/storksbill	Geraniaceae	CSS, DW, NNG
*Erodium cicutarium**	red-stem filaree/storksbill	Geraniaceae	NNG
Eucalyptus sp.*	eucalyptus	Myrtaceae	ORN
Euphorbia albomarginata	white-margin sandmat	Euphorbiaceae	NNG
*Euphorbia peplus**	petty spurge	Euphorbiaceae	DW
*Festuca myuros**	rat-tail fescue	Poaceae	CSS, NNG
*Festuca perennis**	ryegrass	Poaceae	NNG
*Fraxinus uhdei**	Shamel ash	Oleaceae	ORN
Gnaphalium sp.(*)	-	Asteraceae	DW
*Helminthotheca echioides**	bristly ox-tongue	Asteraceae	DW, NNG
*Hirschfeldia incana**	short-pod mustard	Brassicaceae	DIS, NNG
Hordeum jubatum	foxtail barley	Poaceae	NNG
Hordeum murinum subsp. *leporinum**	hare barley	Poaceae	NNG
*Hypochaeris glabra**	smooth cat's ear	Asteraceae	NNG
Isocoma menziesii var. *menziesii*	spreading goldenbush	Asteraceae	CSS, NNG
Jepsonia parryi	coast jepsonia	Saxifragaceae	NNG
*Lactuca serriola**	prickly lettuce	Asteraceae	ORN, NNG
Logfia sp.(*)	cottonrose	Asteraceae	NNG
Malosma laurina	laurel sumac	Anacardiaceae	NNG
Malva sp.*	cheeseweed	Malvaceae	DIS

Species Name	Common Name	Family	Habitat
*Marrubium vulgare**	horehound	Lamiaceae	NNG
Melilotus sp.*	sweetclover	Fabaceae	NNG
*Mesembryanthemum crystallinum**	crystalline iceplant	Aizoaceae	ORN
*Mesembryanthemum nodiflorum**	slender-leaf iceplant	Aizoaceae	ORN
Narcissus sp.*	narcissus	Amaryllidaceae	NNG
*Nicotiana glauca**	tree tobacco	Solanaceae	NNG, ORN
*Oenothera xenogaura**	Drummond's gaura	Onagraceae	NNG
Olea europaea	olive	Oleaceae	ORN
Opuntia sp.	prickly-pear	Cactaceae	NNG
Pinus sp.*	pine (non-native)	Pinaceae	ORN
*Poa annua**	annual bluegrass	Poaceae	DW
Polycarpon tetraphyllum var. *tetraphyllum**	four-leaf allseed	Caryophyllaceae	DW
*Polypogon monspeliensis**	annual beard grass	Poaceae	DW
Populus fremontii subsp. *fremontii*	western cottonwood	Salicaceae	NNG
Quercus agrifolia var. *agrifolia*	coast live oak, encina	Fagaceae	NNG
*Raphanus sativus**	wild radish	Brassicaceae	NNG
*Ricinus communis**	castor bean	Euphorbiaceae	DW
*Rumex crispus**	curly dock	Polygonaceae	DW, NNG
Salix gooddingii	Goodding's black willow	Salicaceae	NNG
Salix laevigata	red willow	Salicaceae	DW
Salix lasiolepis	arroyo willow	Salicaceae	DW
Salsola sp.*	Russian-thistle	Chenopodiaceae	DIS
Salvia apiana	white sage	Lamiaceae	CSS, NNG
Sambucus nigra subsp. *caerulea*	blue elderberry	Adoxaceae	DW
*Schinus molle**	Peruvian pepper tree	Anacardiaceae	ORN
*Senecio vulgaris**	common groundsel	Asteraceae	DIS
*Silene gallica**	common catchfly	Caryophyllaceae	NNG
Sisyrinchium bellum	blue-eyed-grass	Iridaceae	NNG
Sonchus sp.*	sow-thistle	Asteraceae	DIS
Stipa sp.	needlegrass	Poaceae	CSS, NNG
Tamarix sp.*	tamarisk/salt-cedar	Tamaricaceae	DW
Trichostema lanceolatum	vinegar weed	Lamiaceae	NNG
Typha sp.	cattail	Typhaceae	DW
*Ulmus parvifolia**	Chinese elm	Ulmaceae	ORN
Vicia villosa subsp. *villosa**	winter vetch	Fabaceae	NNG
*Washingtonia robusta**	Mexican fan palm	Arecaceae	ORN
Zeltnera venusta	canchalagua	Gentianaceae	CSS, NNG

* non-native
! sensitive

CSS = Coastal sage scrub
DIS = Disturbed
DEV = Developed
DW = Disturbed Wetland
NNG = Non-Native Grassland
ORN = Ornamental

APPENDIX B ANIMALS OBSERVED ON THE LAKE JENNINGS PARK ROAD SITE			
Common Name	**Scientific Name**	**Habitat Observed**	**No. Observed**
Invertebrates			
Ant	Family Formicidae	NNG	~200
Behr's metalmark	*Apodemio mormo virgulti*	NNG	2
Butterfly (unidentified)	Order Lepidoptera	DW	1
California harvester ant	*Pogonomyrmex californicus*	NNG	many
Dragonfly	Suborder Anisoptera	NNG	1
Fiery skipper	*Hylephila phyleus*	NNG	1
Funereal duskywing	*Erynnis funeralis*	NNG	6
Funnel weaver spider	Family Agelenidae	NNG	many
Grasshopper	Family Acrididae	CSS, NNG	many
Honey bee*	*Apis mellifera*	DW	1
Ladybird beetle	Family Coccinellidae	NNG	2
Mosquito	Family Culicidae	DW	
Pacific sara orangetip	*Anthocharis sara*	NNG	1
Pale swallowtail	*Papilio eurymedon*	NNG	1
Stink beetle	*Eleodes* sp.	NNG	1
Western pygmy-blue	*Brephidium exilis*	NNG	2
Western tiger swallowtail	*Papilio rutulus*	NNG	1
Wolf spider	Family Lycosidae	NNG	1
Reptiles			
Coastal whiptail	*Aspidoscelis tigris stejnegeri*	DW	2
Common side-blotched lizard	*Uta stansburiana*	NNG	1
Lizard (unidentified)	Suborder Lacertilia	NNG	2
Western fence lizard	*Sceloporus occidentalis*	NNG	1
Birds			
American crow	*Corvus brachyrhynchos*	flyover	several
Anna's hummingbird	*Calypte anna*	flyover, DW	1, 1
Black phoebe	*Sayornis nigricans*	NNG, DW	2
Bullock's oriole	*Icterus bullockii*	ORN	pair
Bushtit	*Psaltriparus minimus*	NNG	small flock
California towhee	*Melozone crissalis*	NNG	2
Hooded oriole	*Icterus cucullatus*	ORN, NNG	pair
House finch	*Haemorhous mexicanus*	DW, ORN	many
House sparrow*	*Passer domesticus*	ORN	several
Hummingbird	Family Trochilidae	DW	1
Lesser goldfinch	*Spinus psaltria*	DW	1
Mourning dove	*Zenaida macroura*	ORN	several
Northern mockingbird	*Mimus polyglottos*	ORN	1
Western scrub-jay	*Aphelocoma californica*	ORN	1
Yellow-rumped warbler	*Setophaga coronata*	DW	several
Mammals			
Botta's pocket gopher	*Thomomys bottae*	NNG	1
Desert cottontail	*Sylvilagus audubonii sanctidiegi*	NNG	1

! State or federal special-status species

* Non-native species

CSS = Coastal Sage Scrub
DIS = Disturbed
DW = Disturbed Wetland
NNG = Non-Native Grassland
ORN = Ornamental
ORN = Ornamental

APPENDIX C
SENSITIVE PLANTS WITH THE POTENTIAL TO OCCUR ON THE LAKE JENNINGS PARK ROAD SITE
(USGS EL CAJON QUAD, 213 - 238 METERS [700 - 782 FT])

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Acanthomintha ilicifolia	thornmint, San Diego thorn-mint	Lamiaceae	1B.1	**SE/FT**	X	A	Annual herb, Apr-Jun	Clay soil, openings in chaparral, coastal scrub, valley & foothill grassland, vernal pools; 10-960 m	Low; no suitable soils on-site, would have been detectable during spring surveys and was not observed
Adolphia californica	spineshrub, California adolphia	Rhamnaceae	2B.1	-/-		B	Shrub (deciduous),	Clay soil in chaparral, coastal scrub, valley & foothill grassland; 45-740 m	Low; no suitable soils on-site, would have been detectable during all surveys and was not
Ambrosia monogyra (Hymenoclea m.)	desert fragrance	Asteraceae	2B.2	-/-		-	Shrub, Aug-Nov	Sandy or rocky soils in sage scrub, chaparral and Sonoran desert scrub; 10-500 m	Low; no suitable habitat, would have been detectable during surveys and was not observed
Ambrosia pumila	San Diego ambrosia	Asteraceae	1B.1	**-/FE**	X	A	Perennial herb (rhizomatous), Apr-Oct	Sandy loam or clay, often disturbed areas, sometimes alkaline areas, in chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 20-415 m	Low, would have been detectable during spring surveys and was not observed.
Aphanisma blitoides	aphanisma	Chenopodiaceae	1B.2	-/-		A	Annual herb, Mar-Jun	Sandy soils in coastal bluff scrub, coastal dunes, coastal scrub; 1-305 m	Low; no suitable habitat on-site, would have been detectable during spring surveys and was not observed.
Arctostaphylos glandulosa subsp. *crassifolia*	Del Mar manzanita, fe del mar manzanita	Ericaceae	1B.1	**-/FE**		A	Shrub (evergreen), Dec-Jun	Sandy maritime chaparral; 0-365 m	Low; no soils or suitable habitat on-site, would have been detectable and was not observed.
Arctostaphylos otayensis	Otay manzanita	Ericaceae	1B.2	-/-		A	Shrub (evergreen), Jan-Apr	Metavolcanic soils in chaparral, cismontane woodland; 275-1700 m	Low; no suitable soils or habitat on-site, would have been detectable during all surveys and was not observed.
Artemisia palmeri	Palmer's sagewort, San Diego sagewort	Asteraceae	4.2	-/-		D	Biennial to perennial herb to subshrub, Feb-Sep	Sandy, mesic soils in chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; 15-915 m	Low, would have been detectable during surveys and was not observed.
Astragalus deanei	Deane's locoweed/milkvetch	Fabaceae	1B.1	-/-		A	Perennial herb, Feb-May	Chaparral, cismontane woodland, coastal scrub, riparian forest; 75-695 m	Low; would have been detectable during surveys and was not observed, coastal sage scrub on-site is too disturbed.
Astragalus oocarpus	San Diego milkvetch	Fabaceae	1B.2	-/-		A	Perennial herb, May-Aug	Chaparral (openings), cismontane woodland; 305-1524 m	Low; would have been detectable during surveys and was not observed, no suitable habitat on-site
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	1B.2	-/-		A	Perennial herb, Mar-Oct	Alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, valley & foothill grassland; 3-460 m	Low; no suitable habitat on-site, would have been detectable during surveys and was not observed.
Baccharis vanessae	Encinitas baccharis	Asteraceae	1B.1	**SE/FT**	X	A	Shrub (deciduous), Aug-Nov	Sandstone in maritime chaparral, cismontane woodland; 60-720 m	Low; would have been detectable during surveys and was not observed; no suitable sandstone soils or habitat on-site.
Bahiopsis laciniata (Viguiera l.)	San Diego sunflower, San Diego County viguiera	Asteraceae	4.2	-/-		D	Shrub, Feb-Aug	Chaparral, coastal scrub; 60-750 m	Moderate; not observed on-site, but observed in sage scrub off-site to south and could spread onto site
Bergerocactus emoryi	velvet cactus, golden-club cactus, golden-spined cereus	Cactaceae	2B.2	-/-		B	Shrub (stem succulent), May-Jun	Sandy soils in closed-cone coniferous forest, chaparral, coastal scrub; 3-395 m	Low; too far inland, no suitable soil, would have been detectable during all surveys and was not observed

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Bloomeria clevelandii (Muilla c.)	San Diego goldenstar	Themidaceae	1B.1	-/-		A	Perennial herb (bulbiferous), Apr-May	Clay soil in chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 50-465 m	Low; no suitable soils on-site, would have been detectable during spring surveys and was not observed.
Brodiaea filifolia	thread-leaf brodiaea	Themidaceae	1B.1	**SE/FT**	X	A	Perennial herb (bulbiferous), Mar-Jun	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley & foothill grassland, vernal pools, often on clay; 25-1120 m	Low, would have been detectable during spring surveys and was not observed, not documented in CNDDB quad.
Brodiaea orcuttii	Orcutt's brodiaea	Themidaceae	1B.1	-/-		A	Perennial herb (deciduous, bulbiferous), May-Jul	Mesic, clay, serpentinite soils in closed-cone coniferous forest, chaparral, cismontane woodland, meadows & seeps, valley & foothill grassland, and near vernal pools; 30-1692 m	Low; no suitable soils on-site, grassland is too disturbed, would have been detectable during spring surveys and was not observed.
California macrophylla (Erodium macrophyllum)	California large-leaf filaree/storksbill, round-leaved filaree	Geraniaceae	1B.1	-/-		B	Annual herb, Mar-May	Clay soil, cismontane woodland, valley & foothill grassland; 15-1200 m	Low; no suitable soils on-site, would have been detectable during spring surveys and was not observed.
Calochortus dunnii	Dunn's mariposa lily	Liliaceae	1B.2	**SR**/-	X	A	Perennial herb (bulbiferous), Feb-Jun	Gabbroic or metavolcanic soil, rocky, in closed-cone coniferous forest, chaparral, valley & foothill grassland; 185-1830 m	Low; no suitable soils on-site, would have been detectable during spring surveys and was not observed.
Caulanthus heterophyllus (var. *heterophyllus*) *(C. stenocarpus)*	(San Diego) jewelflower (variety no longer recognized in TJM2)	Brassicaceae	-	-/-			Annual herb, Mar-May	Dry, open scrub, chaparral, generally after fire, disturbance; 0-1300 m	Low; should have been detectable during spring surveys and was not observed.
Ceanothus cyaneus	Lakeside-lilac, Lakeside ceanothus	Rhamnaceae	1B.2	-/-	X	A	Shrub (evergreen), Apr-Jun	Closed-cone coniferous forest, chaparral; 235-755 m	Low; no suitable habitat on-site, would have been detectable during surveys and was not observed.
Ceanothus otayensis	Otay-lilac, Otay Mountain ceanothus	Rhamnaceae	1B.2	-/-		-	Shrub (evergreen), Jan-Apr	Metavolcanic or gabbroic soils in chaparral; 600-1100 m	Low; no suitable soils or habitat on-site, would have been detectable during surveys and was not observed.
Ceanothus verrucosus	wart-stem-lilac, wart-stemmed ceanothus	Rhamnaceae	2B.2	-/-		B	Shrub (evergreen), Dec-May	Chaparral; 1-380 m	Low; too far inland, no suitable soil, would have been detectable during all surveys and was not observed.
Centromadia parryi subsp. *australis*	southern tarplant	Asteraceae	1B.1	-		A	Annual herb, May-Nov	Marshes and swamps (margins), valley & foothill grassland (vernally mesic), vernal pools; 0-425 m	Low; would have been detectable during spring surveys and was not observed, not documented in CNDDB quad.
Centromadia pungens subsp. *laevis*	smooth tarplant	Asteraceae	1B.1	-		A	Annual herb, Apr-Sep	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley & foothill grassland; 0-640 m	Low; would have been detectable during spring surveys and was not observed.
Chorizanthe polygonoides var. *longispina*	knotweed spineflower, long-spined spineflower	Polygonaceae	1B.2	-/-		A	Annual herb, Apr-Jul	Often clay soils in chaparral, coastal scrub, meadows & seeps, valley & foothill grassland, near vernal pools; 30-1530 m	Low; no clay soils on-site, would have been detectable during spring surveys and was not observed.
Chorizanthe procumbens	prostrate spineflower	Polygonaceae	-	-/-			Annual herb, Apr-Jun	Common on sandy or gravelly soils (TJM2)	Low; common but no suitable soils on-site, would have been detectable during spring surveys and was not observed.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Clarkia delicata	delicate clarkia, Campo clarkia	Onagraceae	1B.2	-/-		A	Annual herb, Apr-Jun	Often gabbroic soil in chaparral, cismontane woodland; 235-1000 m	Low; no suitable habitat on-site, would have been detectable during spring and summer surveys and was not observed.
Clinopodium chandleri (Satureja c.)	San Miguel savory	Lamiaceae	1B.2	-/-		A	Shrub, Mar-Jul	Rocky, gabbroic or metavolcanic soils in chaparral, cismontane woodland, coastal scrub, riparian woodland, valley & foothill grassland; 120-1075 m	Low; no suitable soils on-site, would have been detectable during surveys and was not observed.
Comarostaphylis diversifolia subsp. *diversifolia*	summer-holly	Ericaceae	1B.2	-/-		A	Shrub (evergreen), Apr-Jun	Chaparral, cismontane woodland; 30-790 m	Low; no suitable habitat on-site, would have been detectable during surveys and was not observed.
Cordylanthus orcuttianus - see *Dicranostegia orcuttiana*									
Cupressus forbesii - see Hesperocyparis f.									
Deinandra conjugens (Hemizonia c.)	Otay tarplant	Asteraceae	1B.1	**SE/FT**	X	A	Annual herb, May-Jun	Clay soils in coastal scrub, valley & foothill grassland; 25-300 m	Low; no suitable soils on-site, would have been detectable during spring surveys and was not observed.
Deinandra floribunda (Hemizonia f.)	Tecate tarplant	Asteraceae	1B.2	-/-		A	Annual herb, Aug-Oct	Chaparral, coastal scrub; 70-1220 m	Low; would have been detectable during spring surveys and was not observed, not documented in CNDDB quad.
Dicranostegia orcuttiana (Cordylanthus orcuttianus)	Orcutt's bird's beak	Orobanchaceae	2B.1	-		B	Annual herb (hemiparasitic), Mar-Sep	Coastal scrub, 10-350 m	Low; unlikely this far inland, would have been detectable during spring surveys and was not observed.
Dudleya variegata	variegated dudleya	Crassulaceae	1B.2	-/-	X	A	Perennial herb, Apr-Jun	Clay soils in chaparral, cismontane woodland, coastal scrub, valley & foothill grassland, near vernal pools; 3-580 m	Low; no suitable soils on-site, habitat is too disturbed, would have been detectable during spring surveys and was not observed.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	Asteraceae	1B.1	-/-	X	B	Shrub (evergreen), Jul-Nov	Mesic chaparral, coastal scrub; 30-600 m	Low; would have been detectable during surveys and was not observed.
Eriogonum evanidum	vanishing wild buckwheat	Polygonaceae	1B.1	-/-			Annual herb, Jul-Oct	Sandy or gravelly chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland; 1100-2225 m	Low; only one regional record on Viejas Mtn., no suitable habitat on-site, would have been detectable during spring and summer surveys and was not observed.
Erodium macrophyllum - see *California macrophylla*									
Eryngium aristulatum var. *parishii*	San Diego button-celery	Apiaceae	1B.1	**SE/FE**		A	Biennial to perennial herb, Apr-Jun	Mesic coastal scrub, valley & foothill grassland, vernal pools; 20-620 m	Low; no vernal pools on-site, would have been detectable during spring surveys and was not observed.
Euphorbia misera	cliff spurge	Euphorbiaceae	2B.2	-/-		B	Shrub, Dec-Aug	Coastal bluff scrub, coastal scrub/ rocky; 10-500 m	Low; unlikely this far inland, would have been detectable during spring surveys and was not observed.
Ferocactus viridescens	coast barrel cactus, San Diego barrel cactus	Cactaceae	2B.1	-/-		B	Perennial (stem succulent), May-Jun	Chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 3-450 m	Low; would have been detectable during surveys and was not observed.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Fraxinus parryi	chaparral ash	Oleaceae	2B.2	-/-		-	Shrub, Mar-May	Chaparral, 213-620 m	Low; no suitable habitat, would have been detectable during surveys and was not observed
Fremontodendron mexicanum	southern fremontia, Mexican flannelbush	Malvaceae	1B.1	**SR/FE**		A	Shrub (evergreen), Mar-Jun	Gabbroic, metavolcanic, or serpentinite soils in closed-cone coniferous forest, chaparral, cismontane woodland; 10-716 m	Low; no suitable soils or habitat, would have been detectable during surveys and was not observed.
Geothallus tuberosus	Cambell's liverwort	Sphaerocarpaceae	1B.1	-/-		-	Ephemeral liverwort	Vernal pools and mesic coastal sage scrub; 10-600 m	Low; no vernal pools or undisturbed sage scrub on-site.
Githopsis diffusa subsp. *filicaulis*	Mission Canyon bluecup	Campanulaceae	3.1	-/-		C	Annual herb, Apr-Jun	Chaparral (mesic, disturbed areas); 450-700 m	Low; no suitable habitat on-site, would have been detectable during spring surveys and was not observed..
Harpagonella palmeri	Palmer's grappling-hook	Boraginaceae	4.2	-/-		D	Annual herb, Mar-May	Clay soils in chaparral, coastal scrub, valley & foothill grassland; 20-955 m	Low; no suitable soils on-site, would have been detectable during spring surveys and was not observed
Hesperocyparis forbesii (Cupressus f.)	Tecate cypress	Cupressaceae	1B.1	-/-		A	Tree (evergreen)	Clay, gabbroic, or metavolcanic soils in closed-cone coniferous forest, chaparral; 80-1500 m	Low; no suitable soils on-site, would have been detectable during all surveys and was not observed
Holocarpha virgata subsp. *elongata*	graceful tarplant	Asteraceae	4.2	-/-		D	Annual herb, May-Nov	Chaparral, cismontane woodland, coastal scrub, valley & foothill grassland; 60-1100 m	Low; would have been detectable during spring and summer surveys and was not observed, not documented in CNDDB quad.
Hordeum intercedens	little barley, vernal barley	Poaceae	3.2	-		C	Annual herb, Mar-Jun	Vernal pools, dry, saline streambeds, alkaline flats; below 500 m (TJM2)	Low; should have been detectable during spring surveys and was not observed.
Horkelia truncata	Ramona horkelia	Rosaceae	1B.3	-/-		A	Perennial herb, May-Jun	Clay or gabbroic soils in chaparral, cismontane woodland; 400-1300 m	Low; no suitable soils on-site, would have been detectable during spring surveys and was not observed
Hulsea californica	San Diego hulsea, San Diego sunflower	Asteraceae	1B.3	-		A	Perennial herb, Apr-Jun	Openings and burned areas in chaparral, lower and upper montane coniferous forest; 915-2915 m	Low; no suitable habitat on-site, would have been detectable during spring surveys and was not observed
Hymenoclea monogyra - see *Ambrosia m.*									
Isocoma menziesii var. *decumbens*	decumbent goldenbush	Asteraceae	1B.2	-/-		A	Shrub, Apr-Nov	Sandy, often disturbed areas in chaparral, coastal scrub; 10-135 m	Low; unlikely this far inland, *Isocoma menziesii* on-site keyed to *var. menziesii*.
Iva hayesiana	San Diego marsh-elder	Asteraceae	2B.2	-/-		B	Perennial herb to subshrub, Apr-Oct	Marshes & swamps, playas; 10-500 m	Low; would have been detectable during surveys and was not observed.
Juncus acutus subsp. *leopoldii*	southwestern spiny rush	Juncaceae	4.2	-/-		D	Perennial herb, Mar-Jun	Coastal dunes (mesic), meadows & seeps (alkaline seeps), marshes and swamps (coastal salt); 3-900 m	Low; no suitable habitat on-site, would have been detectable during surveys and was not observed
Lasthenia glabrata subsp. *coulteri*	Coulter's salt-marsh daisy, Coulter's goldfields	Asteraceae	1B.1	-/-		A	Annual herb, Feb-Jun	Coastal salt marshes & swamps, playas, vernal pools; 1-1220 m	Low; no suitable habitat on-site, would have been detectable during spring surveys and was not observed
Lepidium virginicum var. *robinsonii* (not recognized in TJM2)	Robinson's peppergrass	Brassicaceae	4.3	-/-		A	Annual herb, Jan-Jul	Chaparral, coastal scrub; 1-885 m	Low; not observed, not reported in project CNDDB quad or in SanBIOS within 5 miles.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Monardella viminea (*M. linoides* ssp. *v.*)	willowy monardella	Lamiaceae	1B.1	**SE/FE**	X	A	Perennial herb to subshrub, Jun-Aug	Alluvial ephemeral washes, chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; 50-225 m	Low; no suitable habitat on-site, would have been detectable during surveys and was not observed.
Myosurus minimus	little mousetail	Ranunculaceae	3.1	-/-		C	Annual herb, Mar-Jun	Valley & foothill grassland, vernal pools (alkaline); 20-640 m	Low; no suitable habitat on-site, would have been detectable during spring surveys and was not observed.
Nama stenocarpum	mud nama	Boraginaceae	2B.2	-/-		B	Annual to perennial herb, Jan-Jul	Marshes & swamps (lake margins, riverbanks); 5-500 m	Low; no suitable habitat on-site, would have been detectable during spring surveys and was not observed.
Navarretia fossalis	spreading navarretia	Polemoniaceae	1B.1	-/**FT**		A	Annual herb, Apr-Jun	Chenopod scrub, marshes & swamps (shallow freshwater), playas, vernal pools; 30-655 m	Low; no suitable habitat on-site, would have been detectable during spring surveys and was not observed.
Navarretia prostrata	flat navarretia	Polemoniaceae	1B.1	-/-		A	Annual herb, Apr-Jul	Alkaline floodplains and vernal pools; <700 m (TJM2)	Low; no suitable habitat on-site, would have been detectable during spring surveys and was not observed.
Nolina interrata	Dehesa nolina	Ruscaceae	1B.1	**SE**/-	X	A	Perennial herb to shrub, Jun-Jul	Gabbroic soils in chaparral; 185-855 m	Low; no suitable soils on-site, would have been detectable during surveys and was not observed.
Ophioglossum californicum	California adder's tongue	Ophioglossaceae	4.2	-		D	Perennial herb (rhizomatous), Dec-Jun	Mesic chaparral and valley & foothill grassland, vernal pools margins); 60-525 m	Low; would have been detectable during spring and summer surveys and was not observed.
Pentachaeta aurea subsp. *aurea*	golden-ray pentachaeta	Asteraceae	4.2	-		D	Annual herb, Mar-Jul	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, valley & foothill grassland; 80-1850 m	Low; would have been detectable during spring and summer surveys and was not observed.
Pogogyne abramsii	San Diego mesa mint	Lamiaceae	1B.1	**SE/FE**		A	Annual herb, Apr-Jul	Vernal pools; 90-200 m	Low; no vernal pools on-site, would have been detectable during spring surveys and was not observed.
Pogogyne nudiuscula	Otay mesa mint	Lamiaceae	1B.1	**SE/FE**		A	Annual herb, May-Jul	Vernal pools; 90-250 m	Low; no vernal pools on-site, would have been detectable during spring surveys and was not observed.
Quercus dumosa	Nuttall's scrub oak	Fagaceae	1B.1	-/-		A	Shrub (evergreen), Feb-Aug	Sandy, clay loam soils in closed-cone coniferous forest, chaparral, coastal scrub; 15-400 m	Low; no suitable habitat on-site, would have been detectable during all surveys and was not observed.
Quercus engelmannii	Engelmann/mesa blue oak	Fagaceae	4.2	-		D	Tree (deciduous), Mar-May	Chaparral, cismontane woodland, riparian woodland, valley & foothill grassland; 120-1300 m	Low; would have been detectable during all surveys and was not observed.
Salvia munzii	Munz's sage	Lamiaceae	2B.2	-/-		B	Shrub (evergreen), Feb-Apr	Chaparral, coastal scrub; 120-1065 m	Low; would have been detectable during surveys and was not observed, not documented in CNDDB quad.
Satureja chandleri - see *Clinopodium c.*									
Senecio aphanactis	California groundsel, chaparral ragwort	Asteraceae	2B.2	-/-		B	Annual herb, Jan-Apr	Chaparral, cismontane woodland, coastal scrub, sometimes alkaline; 15-800 m	Low; would have been detectable during spring surveys and was not observed, not documented in CNDDB quad.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Stemodia durantifolia	blue streamwort, purple stemodia	Plantaginaceae	2B.1	-/-		B	Perennial herb, Jan-Dec	Riparian habitats, on wet sand or rocks, drying streambeds; <400 m (TJM2)	Low; no suitable habitat on-site, would have been detectable during spring and summer surveys and was not observed.
Stylocline citroleum	oil neststraw	Asteraceae	1B.1	-/-		A	Annual herb, Mar-Apr	Chenopod scrub, coastal scrub, valley & foothill grassland; 50-400 m	Low; only regional record is CNPS report from Pt. Loma quad, would have been detectable during spring surveys and was not observed
Tetracoccus dioicus	Parry's tetracoccus	Picrodendraceae	1B.2	-/-		A	Shrub, Apr-May	Chaparral, coastal scrub; 165-1000 m	Low; would have been detectable during surveys and was not observed.
Texosporium sancti-jacobi	woven-spored lichen	Caliciaceae	-	-/-			Lichen	On rabbit pellets or small bits of decaying organic matter, in open sites undisturbed sites with *Adenostoma f., Eriogonum, Selaginella* ; up to 1000 m	Low; site is too disturbed.
Viguiera laciniata - see *Bahiopsis l.*									

Listing Designations

CRPR - California Rare Plant Rank (from Rare Plant Status Review Group, jointly managed by California Department of Fish and Wildlife [CDFW] and California Native Plant Society [CNPS])

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

.1 - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 - Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 - Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

State of California species designations (CDFW April 2013)
SE - State-listed Endangered
ST - State-listed Threatened
SR - State-listed Rare

Federal species designations (CDFW April 2013, USFWS 2013)
FE - Federally listed Endangered
FT - Federally-listed Threatened
FC - Federal candidate for listing

Cnty NE - an X in this column indicates the species is considered a Narrow Endemic by the County of San Diego (MSCP County of San Diego Subarea Plan 1997)

Cnty List - County Sensitive Plant List (County of San Diego 2010)
A - County List A: plants rare, threatened or endangered in California and elsewhere
B - County List B: plants rare, threatened or endangered in California but more common elsewhere
C - County List C: plants which may be rare, but need more information to determine their true rarity status
D - County List D: plants of limited distribution and are uncommon, but not presently rare or endangered

City NE - an X in this column indicates the species is considered a Narrow Endemic by the City of San Diego (Land Development Manual - Biology Guidelines 2009)

Other abbreviations:

TJM2 - The Jepson Manual, 2nd edition (2012) (taxonomic authority for this report except where it conflicts with special-status plant recognition)
(Common names are primarily from *The Checklist of Vascular Plants of San Diego County* [Rebman and Simpson 2006], and secondarily from CNPS's Inventory of Rare and Endangered Plants [CNPS 2010, 2013])

APPENDIX D
SENSITIVE ANIMALS WITH THE POTENTIAL TO OCCUR ON THE LAKE JENNINGS PARK ROAD SITE
(USGS EL CAJON QUAD, 213 - 238 METERS [700 - 782 FT])

Common Name	Species Name	State/Federal Status	County NE	County Group	Habitat	Potential to Occur Onsite
INVERTEBRATES						
Harbison dun skipper	*Euphyes vestris harbisoni*	-	X	1	Drainages containing host plant *Carex spissa* in San Diego and Orange Counties.	Low; not observed, no true drainage or host plant on-site.
Hermes copper	*Lycaena hermes*	-/-		1	Coastal sage scrub, mixed chaparral and chamise chaparral; from Mexican border to Fallbrook and inland to Pine Valley in SD County; host plant is *Rhamnus crocea* .	Low; not observed, no suitable habitat or host plant on-site.
Monarch butterfly	*Danaus plexippus*			2	Land with host plant milkweeds (*Asclepias* spp.) or nectar plants.	Low; not observed, no host plants observed on-site.
Quino checkerspot butterfly	*Euphydryas editha quino*	-/**FE**	X	1	Open grassy areas, interior foothills, host plants *Plantago erecta* , *Plantago ovata* , *Castilleja exserta (Cordylanthus rigidus, Antirrhinum coulterianum);* 0-1000 ft	Low; not observed, no host plants observed on-site.
San Diego fairy shrimp	*Branchinecta sandiegonensis*	-/**FE**	X	1	Vernal pools and other unvegetated ephemeral basins in Orange and San Diego Counties and Baja California.	Low; no vernal pools on-site.
AMPHIBIANS						
Arroyo toad	*Anaxyrus californicus (Bufo c.)*	SSC/**FE**, USFWS-S	X	1	Washes, arroyos, sandy riverbanks, riparian areas; needs exposed sandy streamsides with stable terraces for burrowing with scattered vegetation for shelter, and areas of quiet water or pools free of predatory fishes with sandy or gravel bottoms without silt for breeding; 0-3,000 ft.	Low; no amphibians observed on-site, no suitable habitat occurs on-site; the disturbed wetland on-site is muddy and has no exposed sandy banks or terraces.
California red-legged frog	*Rana draytonii, R. aurora d.*	CSSC/**FT**	X	1	Near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover; most common in lowlands or foothills; breeds in permanent or ephemeral water sources; ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry; 0-5,000 ft.	Low; not observed, no amphibians found on-site, site is far from any known occurrences and has been disturbed for decades and is surrounded by development.
Western spadefoot	*Spea hammondii*	SSC/BLM-S		2	Open areas with sandy or gravelly soils, in mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains; rainpools free of bullfrogs, fish, or crayfish needed for breeding; activity limited to wet season, summer storms or during evenings with elevated substrate moisture levels; nocturnal; 0-4,500 ft.	Low; no amphibians observed on-site, habitat on-site is only marginally suitable, has been disturbed for decades, and is surrounded by development.

Common Name	Species Name	State/Federal Status	County NE	County Group	Habitat	Potential to Occur Onsite
REPTILES						
Coast horned lizard	*Phrynosoma blainvillii (P. coronatum b.)*	SSC/BLM-S, USFS-S		2	Coastal sage scrub with harvester ants (*Pogonomyrmex* spp.) and other native ants.	Low; although coastal sage scrub and harvester ants were observed on-site, the scrub is very small in area and the site is surrounded by
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	SSC/-		2	Semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains, in coastal zone south and west of the deserts; active during the day.	Low; not observed, site lacks good shrub cover, is probably too disturbed and surrounded by development.
Coastal whiptail	*Aspidoscelis tigris stejnegeri (Cnemidophorus t. s.)*	-/-		2	Found in hot, dry open areas with sparse foliage such as chaparral, woodland, and riparian areas	**Observed on-site:** one coastal whiptail observed within disturbed wetland in May 2012, and unidentified whiptail observed in coastal sage scrub.
Coronado skink	*Plestiodon skiltonianus interparietalis (Eumeces s. i.)*	SSC/BLM-S		2	Grassland, woodlands, pine forests, chaparral, especially in open sunny areas such as clearings and the edges of creeks and rivers; prefers rocky areas near streams with lots of vegetation, also found in areas away from water; diurnal but secretive; southwestern CA.	Low; site is likely too disturbed and isolated within development.
Orangethroat whiptail (Belding's orange-throated whiptail)	*Aspidoscelis hyperythra (Cnemidophorus hyperythrus)*	SSC		2	Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral, west of Peninsular Ranges; 0-2,000 ft.	Moderate; reported in project CNDDB quad, and unidentified whiptail observed in coastal sage scrub on-site could have been this species.
Red-diamond rattlesnake	*Crotalus ruber*	SSS/-		2	Arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, cultivated areas, and, on desert slopes of mountains, also rocky desert flats.	Low; not observed, site is too small, isolated within development, and disturbed.
Rosy boa	*Charina trivirgata*	-/(USFS-S)		2	Arid scrublands, semi-arid shrublands, rocky shrublands, rocky deserts, canyons, and other rocky areas; appears to be common in riparian areas, but does not require permanent water; those outside a small area in the Tijuana and Otay River watersheds have been placed in another species, *L. orcuttii* (northern three-lined boa).	Low; not observed, site is too small, isolated within development, and disturbed.
San Diego banded gecko	*Coleonyx variegatus abbotti*	-/-		1	Interior coastal region, west of Peninsular ranges, prefers rocky areas in coastal sage and chaparral, nocturnal, hibernates in winter	Low; no suitable rocky areas within scrub habitat on-site.
(San Diego) ringneck snake	*Diadophis punctatus (similis)*	-/USFS-S		2	Moist habitats including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, and woodlands; usually under cover; may not be distinct from San Bernardino subspecies (*D. p. modestus*)	Low; marginally suitable habitat occurs on-site, but not observed, not reported in project CNDDB quad, and site is probably too small, isolated within development, and disturbed.