

# Civil Engineering • Environmental • Land Surveying

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February 25, 2016

Larry Keough Literacy First 1012 E. Bradley Avenue El Cajon, CA 92021

Subject: Biological Resources Letter Report for the Liberty High School, 1530 Jamacha

Road, El Cajon, CA 92019, APN: 498-330-39, PDS2015-MUP-15-027, PDS2015-

ER-15-14-010; Prepared for the County of San Diego

Dear Mr. Keough:

REC Consultants, Inc. has prepared this letter report to address potential impacts of development to biological resources on an approximately 7.66<sup>1</sup>-acre parcel located southwest of the intersection of East Chase Avenue and Jamacha Road in the County of San Diego near the City of El Cajon.

#### **SUMMARY**

The Liberty High School project (Project) requires a Major Use Permit for a public charter high school. REC Consultants, Inc. surveyed this parcel to document biological resources on the Liberty High School site (Site). This parcel is partially disturbed and currently consists of developed land, disturbed land, non-native grassland, and non-native vegetation. The Project would result in significant impacts to 5.23 acres of non-native grassland and will require mitigation. Mitigation for habitat impacts will be achieved off-site through the purchase of 2.62 acres of Tier III habitat credits, from either a mitigation bank or other land deemed acceptable by Planning & Development Services.

#### INTRODUCTION, PROJECT DESCRIPTION, LOCATION, SETTING

# **Project Description**

The Project requires a Major Use Permit for a public charter high school for grades nine through twelve. At full capacity, the school would serve 450 students and have approximately 33 faculty and staff. The school would include a 48,000 square foot, two-story building including 22 classrooms, administrative office space and a gymnasium. The school would operate during the normal school year (August through June) and during typical office hours (8:00am to 3:30pm). The Site is located at 1530 Jamacha Road in the Valle De Oro Community Plan area, within unincorporated San Diego

<sup>&</sup>lt;sup>1</sup> The County Assessor Parcel Map reports the parcel acreage as 8.83 but the Site was previously surveyed as 7.66 acres. Habitat impact calculations in this report are based on the surveyed acreage.

County. The Site is subject to the Semi-Rural General Plan Regional Category and Semi-Rural (SR-0.5) Land Use Designation. Zoning for the Site is Rural Residential (RR). Access would be provided by two driveways connecting to East Chase Avenue. The Project would be served by the Otay Water District for water and for sewer upon annexation into the district. Fire and emergency protection would be provided by the San Miguel Fire Protection District. Earthwork will consist of cut and fill of approximately 23,500 cubic yards of material.

# **Project Location and Setting**

The Site is located at 1530 Jamacha Road in the Valle De Oro Community Plan area, within unincorporated San Diego County (**Figures 1** and **2**). The Site is bordered by East Chase Avenue to the north, residential development to the west and south, and a small shopping center to the east (**Figure 3**). The Site is within the South County MSCP Subarea plan but is outside of any Pre-Approved Mitigation Area (PAMA); the nearest PAMA is approximately 0.63 mile south.

Terrain on-site consists of a gradual slope running northeast to southwest from 532 feet (162 meters) Above Mean Sea Level (AMSL) in the northeastern corner up to 605 feet (184 meters) AMSL in the southeastern corner. According to the Web Soil Survey (USDA 2015), soil on the Site is comprised of Vista coarse sandy loam, 9 to 15 percent slopes on the western half of the Site and Placentia sandy loam, thick surface, 2 to 9 percent slopes on the eastern half. The Vista soils series consists of well-drained, moderately deep and deep coarse sandy loams derived from granodiorite or quartz diorite on uplands. The Placentia soil series consists of moderately well drained sandy loams that have a sandy clay subsoil, formed in granitic alluvium on old alluvial fans. (USDA 1973)

The Project's environmental setting was studied through a field survey and records review. Records review consisted of a search and review of CNDDB records of rare and special-status plant and animal species within the Project USGS 7.5' quadrangle (El Cajon) and surrounding quadrangles (Poway, San Vicente Reservoir, El Cajon Mountain, La Mesa, Alpine, National City, Jamul Mountains, and Dulzura), recent and historical aerial photographs of the Site and surrounding areas, and soil maps and descriptions from the Soil Survey (USDA 1973, USDA 2015). Species included in the list of sensitive species provided by the County were also evaluated for potential to occur on-site. One field survey was conducted, as summarized in Table 1, below.

Table 1. Surveys Conducted on the Project Site

Date	Time	Temp (°F)	Sky	Wind (MPH)	Survey Type	Personnel
5/18/15	12:30 PM - 2:45 PM	67-66	Scattered cumulus clouds	0-7	General	Lee BenVau

Biological resources found on-site were limited to four land cover categories and common suburban vegetation and wildlife, described in the following section. 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 2014) 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 2014).

#### **REGIONAL CONTEXT**

The Valle de Oro Community Planning Area encompasses approximately nineteen square miles of the unincorporated portion of the County of San Diego within the South County Multiple Species Conservation Program Subarea Plan (MSCP). The Planning Area is located to the south of the City of El Cajon and to the east of the city of La Mesa. Several neighborhoods are located within Valle de Oro. Those include: Casa de Oro, Mount Helix, Vista Grande Hills and Rancho San Diego.

## **HABITATS / VEGETATION COMMUNITIES**

During REC's site visit four land cover categories were observed: developed land, disturbed land, non-native grassland and non-native vegetation. These are shown in **Figure 4** and discussed below.

Developed land (County Habitat Code 12000) occupies approximately 0.81 acre on-site. According to the County of San Diego, urban and/or developed land consists of "Areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that require irrigation. Areas where no natural lands is evident due to a large amount of debris or other materials being placed upon it may also be considered urban/developed (e.g. car recycling plan, quarry)." (Oberbauer et al. 2008) Additional habitat identification information provided in the County's "Report Format and Content Requirements" (County of San Diego 2010a) includes "Land that has been constructed upon or otherwise covered with a permanent unnatural surface shall be considered Developed..."

Developed land on-site consists of paved roads and parking lots, primarily near the shopping center at the northeast corner of the Site.

Disturbed land (County Habitat Code 11300) occupies approximately 0.93 acre on-site. The County of San Diego describes disturbed habitat as "Areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association, but continues to retain a soil substrate. Typically vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance, or shows signs of past or present animal usage that removes any capability of providing viable natural habitat for uses other than dispersal. Examples of disturbed habitat include areas that have been graded, repeatedly cleared for fuel management purposes and/or experienced repeated use that prevents natural revegetation (i.e. dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old homesites." (Oberbauer et al. 2008) Additional habitat identification information provided in the County's "Report Format and Content Requirements" (County of San Diego 2010a) specifies that "Disturbed land includes areas in which the vegetative cover comprises less than 10 percent of the surface area (disregarding natural rock outcrops) and where there is evidence of soil surface disturbance and compaction from previously legal human activity; or where the vegetative cover is greater than 10 percent, there is soil surface disturbance and compaction, and the presence of

building foundations and debris...resulting from legal activities (as opposed to illegal dumping). Examples include recently graded firebreaks, graded construction pads, construction staging areas, offroad vehicle trails, and old homesites."

Disturbed land on-site consists of dirt trails on the northern and western edges of the Site. This habitat is not clearly dominated by any one species but red-stem filaree (*Erodium cicutarium*) and prickly Russian-thistle (*Salsola australis*) were somewhat more common than other species occurring within the area such as red brome (*Bromus madritensis* subsp. *rubens*) or Bermuda grass (*Cynodon dactylon*). The only native species observed growing on disturbed land on-site were western ragweed (*Ambrosia psilostachya*) and doveweed (*Croton setiger*). No animals were observed on disturbed land on-site.

Non-native grassland (County Habitat Code 42200) occupies approximately 5.81 acres on-site. According to the County of San Diego, non-native grassland is "A dense to sparse cover of annual grasses with flowering culms 0.2-0.5 (1.0) m high. Often associated with numerous species of showyflowered, native annual forbs ("wildflowers"), especially in years of favorable rainfall. In San Diego County the presence of Avena, Bromus, Erodium, and Brassica are common indicators. In some areas, depending on past disturbance and annual rainfall, annual forbs may be the dominant species; however, it is presumed that grasses will soon dominate. Germination occurs with the onset of the late fall rains; growth, flowering, and seed-set occur from winter through spring. With a few exceptions, the plants are dead through the summer-fall dry, persisting as seeds. Remnant native species are variable. This can include grazed and even dry-farmed (i.e., disked) areas where irrigation is not present." (Oberbauer et al. 2008) Additional habitat identification information provided in the County's "Report Format and Content Requirements" (County of San Diego 2010a) specifies that "Non-native grasses typically comprise at least 30 percent of the vegetation [...]. Usually, the annual grasses are less than 1 m (3 ft) in height, and form a continuous or open cover. Emergent shrubs and trees may be present, but do not comprise more than 15 percent of the total vegetative cover. Characteristic non-native grassland species include foxtail chess (Bromus madritensis ssp. rubens), ripgut grass (Bromus diandrus), wild oats (Avena spp.), fescues (Vulpia spp.), red-stem filaree (Erodium cicutarium), mustards (Brassica spp.), lupines (*Lupinus* spp.) and goldfields (*Lasthenia* spp.), among others."

Non-native grassland occurs throughout the entire Site wherever the land is not disturbed or shaded by trees. This habitat is dominated by oat (*Avena* sp.) and ripgut grass (*Bromus diandrus*) and includes other non-native grasses such as rat-tail fescue (*Festuca myuros*). Non-native broadleaf species such as lamb's quarters (*Chenopodium album*) and cheeseweed (*Malva parviflora*) also occur in non-native grassland on-site. The only native species observed in this habitat were fiddleneck (*Amsinckia* sp.), doveweed, and California buckwheat (*Eriogonum fasciculatum*), which was limited to a few small individuals in the northwestern corner of the Site. Animals observed in non-native grassland include invertebrates such as rough harvester ant (*Pogonomyrmex rugosus*) colonies, as well as individuals of two bird species, Anna's hummingbird (*Calypte anna*) and mourning dove (*Zenaida macroura*).

<u>Non-native vegetation</u> (County Habitat Code 11000) occupies approximately 0.11 acre on-site. Non-native vegetation is "Characterized by predominantly non-native species introduced and established through human action. These areas are not artificially irrigated, but receive water from precipitation or runoff." (Oberbauer et al. 2008)

Non-native vegetation on-site consists of non-native trees and the plants growing in their shade. The trees are eucalyptus (*Eucalyptus* sp.), Mexican palo verde (*Parkinsonia aculeata*) and Peruvian pepper (*Schinus molle*). Species observed in the understory include lamb's quarters, cheeseweed, and non-native grasses from the surrounding non-native grassland. A colony of European honey bees (*Apis mellifera*), a red-tailed hawk (*Buteo jamaicensis*), a western kingbird (*Tyrannus verticalis*) and a California ground squirrel (*Spermophilus beecheyi*) were observed in this habitat.

A complete list of plants and animals observed are provided in **Attachments A** and **B**, respectively.

#### **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 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 A or B.

Lists of special-status plants and animals with the potential to occur on the Site were generated from the CNDDB RareFind5 database (CNDDB 2015) and the SanBIOS database (County of San Diego 2011). The resulting lists include any special-status species documented within the Project's USGS 7.5' quadrangle (El Cajon) or surrounding quadrangles (Poway, San Vicente Reservoir, El Cajon Mountain, La Mesa, Alpine, National City, Jamul Mountains, and Dulzura). **Attachment C** provides information on these special-status plant taxa and an evaluation of the potential for each to occur onsite, based on CNDDB and SanBIOS search results, the CNPS Inventory of Rare and Endangered Plants (on-line version, 2015), Reiser's *Rare Plants of San Diego County* (2001) and field observations. **Attachment D** provides information on these animal taxa and an evaluation of the potential for each to occur on-site, based on species requirements, CNDDB and SanBIOS search results, and field observations.

# Special-status species observed on or adjacent to the Project Site

No special-status plants or animals were observed on-site.

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

Based on CNDDB and SanBIOS records searches and evaluation of current Site conditions, no special-status species have moderate to high potential to occur on or adjacent to the 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. The County of San Diego (2010) defines raptor foraging habitat as "Land that is a minimum of 5 acres (not limited to project boundaries) of fallow or open areas with any evidence of foraging potential (i.e., burrows, raptor nests, etc.)." Because the Site is larger than 5 acres, and ground squirrel holes were observed on-site, the Site meets the definition of raptor foraging habitat. Furthermore, evidence of raptor foraging was directly observed on-site: one

red-tailed hawk was observed in the sole eucalyptus tree with a freshly killed California ground squirrel (*Spermophilus beecheyi*). No raptor nests were observed onsite.

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 on the Site, and the nests and eggs of all native non-game birds, are protected during the nesting season even if these birds are not special-status or otherwise protected. No sign of bird nesting was observed on-site, but the non-native trees on-site have the potential to serve as nesting habitat for small birds.

## Large mammal use

No evidence of use by large mammals including mule deer (*Odocoileus hemionus*), such as scat or deer laydown areas, was found on-site. The Site is surrounded by development, is disturbed and exposed, and has no connection to natural habitats that could support large mammals.

#### JURISDICTIONAL WETLANDS AND WATERWAYS

No jurisdictional wetlands or waterways were found on the Site, and no signs of jurisdictional wetlands or waterways were observed on-site or in a review of historical aerial photographs of the Site.

## OTHER UNIQUE FEATURES/RESOURCES

The Site does not include any uncommon soils, rock outcrops, or steep slopes. The Site is very unlikely to serve as a wildlife corridor or linkage because it is entirely surrounded by development and the nearest PAMA is approximately 0.63 miles to the south with many residences, several streets, and a large project that has resulted in approximately 60 acres of bare ground, between them.

#### SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

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

# **Direct Impacts**

The Project's direct impacts to biological resources are shown in **Figure 5**, and habitat impacts resulting from implementation of the Project are summarized in Table 2, below. No off-site impacts are anticipated.

Table 2. Habitat/Vegetation Communities and Impacts

Vegetation	Existing	Impacts	Impact	Final	Habitat	Mitigation	Mitigation
Community	On-site	On-site	Neutral	<b>Impacts</b>	Tier	Ratio	Required
	(acres)	(acres)	(acres)	(acres)		(acres)	(acres)
Developed land	0.81	0.81	0.23	0.58	IV	0:1	0.00
(County Habitat Code							
12000)							
Disturbed land	0.93	0.93	0.22	0.71	IV	0:1	0.00
(County Habitat Code							
11300)							
Non-native grassland	5.81	5.81	0.58	5.23	III	0.5:1	2.62
(County Habitat Code							
42200)							
Non-native vegetation	0.11	0.11	0.00	0.11	IV	0:1	0.00
(County Habitat Code							
11000)							
TOTAL	7.66	7.66	1.03	6.63			2.62

Because the Project is bordered by existing residences, land on-site within 100 feet of an existing residence and/or attached garage is considered impact neutral. The 100-foot fuel management zone is considered a direct impact resulting from the construction of those residences due to the regular clearing of vegetation that should take place in this area. As such, this area is impact neutral and habitats occurring in this area that would otherwise require mitigation are not considered when calculating mitigation for Project-related impacts (County of San Diego 2010a).

Impacts to 5.23 acres of non-native grassland are considered significant and will require mitigation at a 0.5:1 ratio. Impacts to disturbed and developed land are not considered significant and will not require mitigation.

Common wildlife such as California ground squirrels would be directly impacted by the Project; however, these impacts are generally not considered significant.

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

#### **Indirect Impacts**

Because the Site is located within an area developed with residential land use and is adjacent to a road, no indirect impacts to natural habitat, wildlife, special-status plants or animals, or any wildlife corridors, linkages, or wildlife nursery sites are anticipated. Potential indirect impacts to water quality and air quality in the Project area will be protected by design features such as on-site bio-retention basins, standard Best Management Practices, and Storm Water Pollution Prevention Plan requirements.

Although impacts to rough harvester ant colonies would likely not be considered significant when considered in isolation, it should be noted that native ants are the food source of horned lizards, including the special-status coast horned lizard (*Phrynosoma blainvillii*). Loss of native ant species, in

addition to habitat fragmentation and destruction, are factors that have contributed to the decline of these lizards (Suarez and Case 2002). One factor attributed to the loss of native ant species is the spread of the invasive Argentine ant (*Linepithema humile*) (Holway 1999). These ants aggressively compete against native ant species and invade more readily in areas with reliable moisture (Menke and Holway 2006). Argentine ants were not observed on-site but likely occur around the nearby residences. On-site irrigation for landscaping or other Project-related purposes would likely facilitate the spread of this invasive species and could affect nearby native ant populations that would otherwise not be impacted by the construction of this Project. However, because the potential for coast horned lizard individuals to occur on-site is low due to lack of on-site coastal sage scrub and no evidence of horned lizard occupation was detected, this potential indirect impact would be below a level of significance.

## **Proposed mitigation**

The Project will result in significant impacts to non-native grassland. Mitigation will be achieved offsite within the MSCP South County Subarea at a County approved conservation bank or other lands acceptable to the County of San Diego. Because non-native grassland is a Tier III habitat and does not require in-kind mitigation, any Tier III habitat may be used to achieve mitigation. Therefore, the purchase of 2.62 acres of Tier III or higher Tier credits would be sufficient.

#### **Avoidance measures**

In addition to the mitigation for Project-related impacts proposed above, the Project would incorporate avoidance measures to prevent additional impacts, such as:

- If native or naturalized habitat is present on-site at the time of grading, all clearing and grubbing of vegetation and/or grading will occur outside the avian and raptor breeding season (January 15 to September 15, or sooner if a qualified biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete).
- If construction (other than vegetation clearing and grubbing) must occur during the avian or raptor breeding season, pre-construction surveys should be performed by a qualified biologist within 10 calendar days prior to the start of construction to determine the presence or absence of nesting birds on-site or other special-status birds within 300 feet of the impact area. If nesting birds are detected, the County and Wildlife Agencies should be contacted to 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.
- Best Management Practices and the Storm Water Pollution Prevention Plan will specifically include mandatory measures to prevent any movement of water, soils, or any material from the Site into off-site areas.

#### **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 biological resources or a special-status resource over a larger area. However, because this Project is small and surrounded by developed land, is located in an area with an approved MSCP plan, and complies with all mitigation requirements, cumulative impacts for the Project can be determined to be below a level of significance even without a review of other projects in the area.

#### **CONCLUSION**

This concludes REC's biological letter report for the Liberty High School Project. Please do not hesitate to contact REC with any questions.

Sincerely,

Elyssa Robertson

Principal, County QCL Biologist

Lee BenVau

Field Biologist

#### **PREPARERS**

This report has been prepared by REC Consultants, Inc. staff:

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Lee BenVau – Primary Author, Field Biologist

Erin Crouthers – Project Manager

Andrew Funk – GIS Analyst

## **ATTACHMENTS**

Figure 1	Regional Location
Figure 2	Vicinity Map

Figure 3 Aerial Photograph of Site and Vicinity

Figure 4 Biological Resources Figure 5 Habitat Impacts

Attachment A Plants Observed on the Liberty High School Project Site
Attachment B Animals Observed on the Liberty High School Project Site

Attachment C Special-Status Plants with the Potential to Occur on the Liberty High School

**Project Site** 

Attachment D Special-Status Animals with the Potential to Occur on the Liberty High School

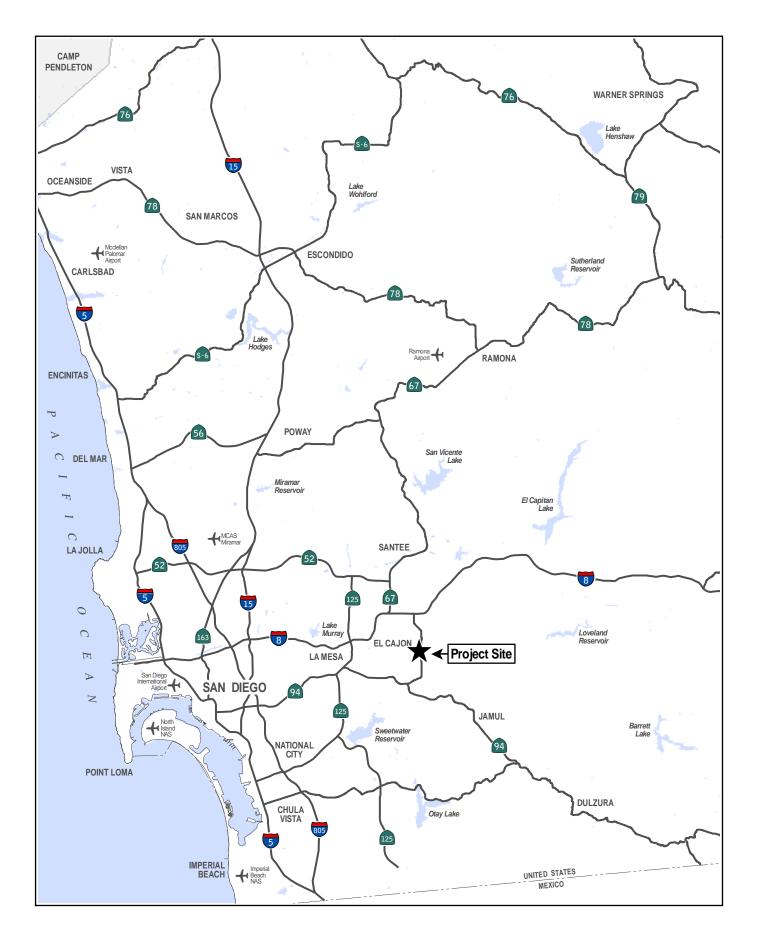
**Project Site** 

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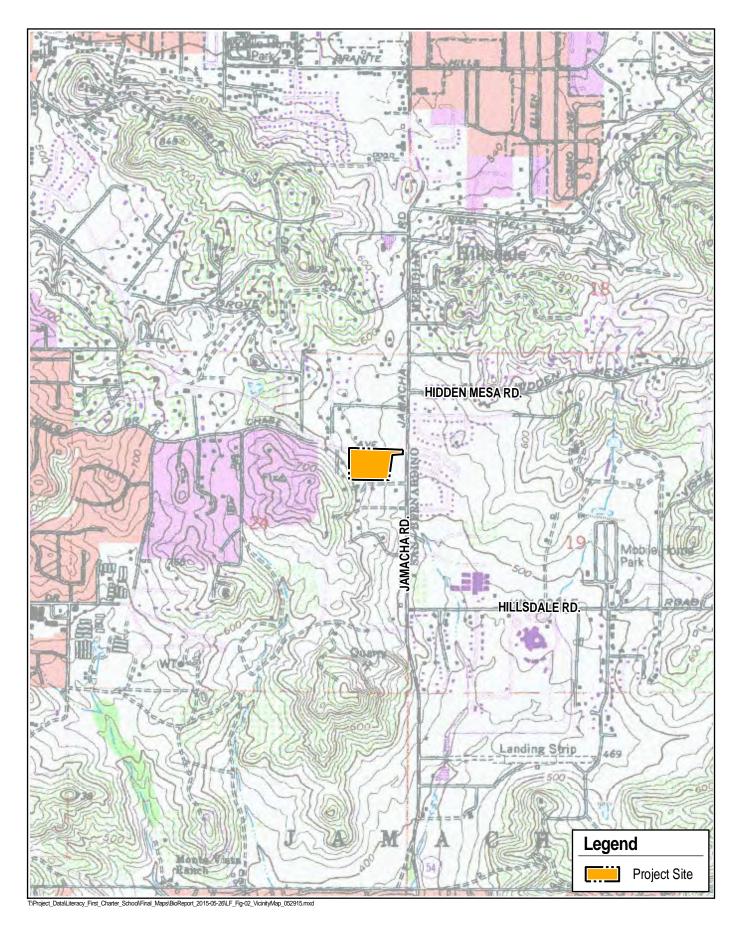
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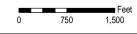




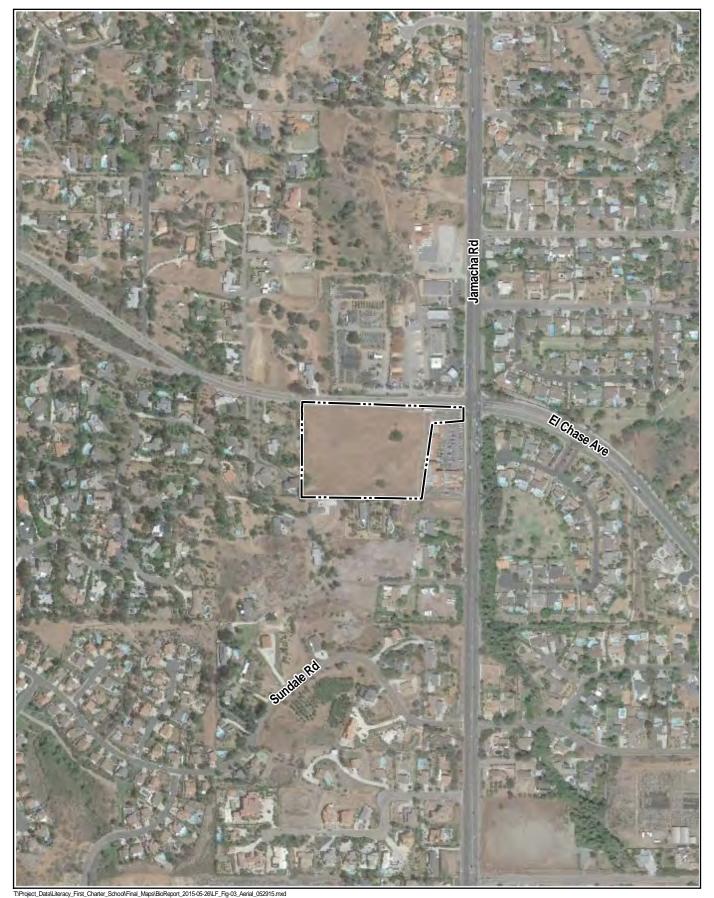
February 2016











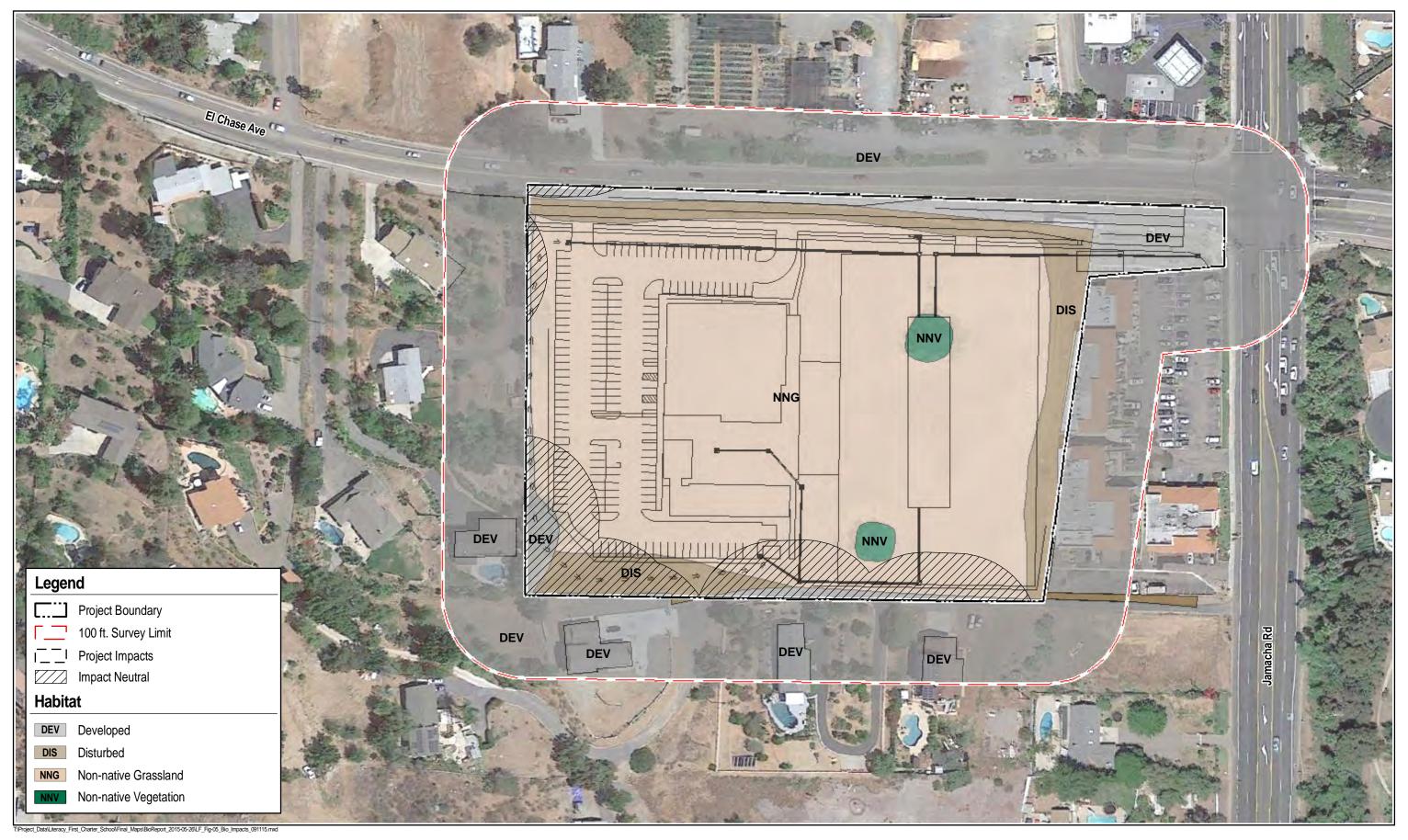
















PLANTS OBSER	VED ON THE LIBERTY HIG	H SCHOOL PROJECT SIT	E
Species Name	Common Name	Family	Habitat
Ambrosia psilostachya	western ragweed	Asteraceae	DIS
Amsinckia sp.	fiddleneck	Boraginaceae	NNG
Avena sp.*	oats	Poaceae	NNG, NNV
Bromus diandrus*	ripgut grass	Poaceae	NNG, NNV
Bromus madritensis subsp. rubens*	red brome, foxtail chess	Poaceae	NNG, DIS
Chenopodium album*	lamb's quarters	Chenopodiaceae	NNG, NNV
Croton setiger	doveweed	Euphorbiaceae	NNG
Cynodon dactylon*	Bermuda grass	Poaceae	DIS
Delosperma sp.	iceplant	Aizoaceae	DIS
Eriogonum fasciculatum	California buckwheat	Polygonaceae	NNG
Erigeron sp. (*)	horseweed, fleabane	Asteraceae	NNG
Erodium cicutarium*	red-stem filaree/storksbill	Geraniaceae	NNG, DIS
Eucalyptus sp.*	eucalyptus	Myrtaceae	NNV
Festuca myuros*	rat-tail fescue	Poaceae	NNG
Hedypnois cretica*	Crete hedypnois	Asteraceae	NNG
Lactuca serriola*	prickly lettuce	Asteraceae	NNG
Malva parviflora*	cheeseweed	Malvaceae	NNG, NNV
Parkinsonia aculeata*	Mexican palo verde	Fabaceae	NNV
Raphanus sativus*	wild radish	Brassicaceae	NNG
Salsola australis*	prickly Russian-thistle,	Chenopodiaceae	NNG, DIS
	tumbleweed		
Schinus molle*	Peruvian pepper tree	Anacardiaceae	NNV
Spergularia sp. (*)	sand-spurrey	Caryophyllaceae	DIS

<sup>\*</sup> non-native

DEV = Developed Land

DIS = Disturbed Land

NNG = Non-Native Grassland

NNV = Non-Native Vegetation

## APPENDIX B

ANIMALS OI	ANIMALS OBSERVED ON THE LIBERTY HIGH SCHOOL PROJECT SITE										
Scientific Name	Common Name	Habitat Observed	No. Observed (estimate)								
Invertebrates											
Apis mellifera*	European honey bee	NNV	many (hive)								
Family Agelenidae	funnel weaver spider	NNG	1								
Order Lepidoptera	moth	NNG	many								
Pogonomyrmex rugosus	rough harvester ant	NNG	many (colonies)								
Suborder Anisoptera	dragonfly	NNG	1								
Suborder Caelifera	grasshopper	NNG	many								
Birds											
Buteo jamaicensis	red-tailed hawk	NNV	1								
Calypte anna	Anna's hummingbird	NNG	2								
Passer domesticus*	house sparrow	FO	2								
Tyrannus verticalis	western kingbird	NNV	1								
Zenaida macroura	mourning dove	NNG	1								
Mammals											
Spermophilus beecheyi	California ground squirrel	NNG, NNV	1								

<sup>\*</sup> Non-native species

FO = Flyover

NNG = Non-Native Grassland NNV = Non-Native Vegetation

	SPECIAL-STATUS			_			-		TY HIGH SCHOOL PROJEC	T SITE
Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSC P		Growth form, bloom time	Habitat	Potential to Occur Onsite
Acanthomintha ilicifolia	thornmint, San Diego thorn-mint	Lamiaceae	1B.1	SE/FT	X	X	A	Annual herb, Apr-Jun	Clay soil, openings in chaparral, coastal scrub, valley & foothill grassland, vernal pools; 10-960 m	Low; known to occur in Project quad but suitable habitat does not occur on- site.
Ambrosia pumila	San Diego ambrosia	Asteraceae	1B.1	-/ <b>FE</b>	X	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; known to occur in Project quad but suitable habitat does not occur on- site.
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; known to occur in Project quad but suitable habitat does not occur on- site.
Asplenium vespertinum	western spleenwort	Aspleniaceae	4.2	-/-			D	Perennial herb (rhizomatous), Feb-Jun	Rocky chaparral, cismontane woodland, coastal scrub; 180-1000 m	Low; known to occur in Project quad but suitable habitat does not occur on- site.
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; known to occur in Project quad but suitable habitat does not occur 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	Low; known to occur in Project quad but suitable habitat does not occur on- site.
Bloomeria clevelandii (Muilla c.)	San Diego goldenstar	Themidaceae	1B.1	-/-		X	A	Perennial herb (bulbiferous), Apr-May	Clay soil in chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 50-465 m	Low; known to occur in Project quad but suitable soil does not occur on-site.
Brodiaea orcuttii	Orcutt's brodiaea	Themidaceae	1B.1	-/-		X	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; known to occur in Project quad but suitable soil does not occur on-site.
Calandrinia breweri	Brewer's calandrinia	Montiaceae	4.2	-/-			D	Annual herb, Mar-Jun	Sandy or loamy disturbed or burned areas in chaparral, coastal scrub; 10-1220 m	Low; known to occur in Project quad but suitable habitat does not occur on- site.

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Acanthomintha ilicifolia	thornmint, San Diego thorn-mint	Lamiaceae	1B.1	SE/FT	X	X	A	Annual herb, Apr-Jun	Clay soil, openings in chaparral, coastal scrub, valley & foothill grassland, vernal pools; 10-960 m	Low; known to occur in Project quad but suitable habitat does not occur on- site.
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; known to occur in Project quad but suitable habitat does not occur on- site.
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; known to occur in Project quad but suitable soil does not occur on-site.
Convolvulus simulans	small-flower bindweed, small-flowered morning- glory	Convolvulaceae	4.2	-/-			D	Annual herb, Mar-Jul	Clay soils and serpentinite seeps in chaparral openings, coastal scrub, valley & foothill grassland; 30-700 m	Low; known to occur in Project quad but suitable soil does not occur on-site.
Dudleya variegata	variegated dudleya	Crassulaceae	1B.2	-/-	X	X	A	Perennial herb, Apr-Jun	Clay soils in chaparral, cismontane woodland, coastal scrub, valley & foothill grassland, near vernal pools; 3-580 m	Low; known to occur in Project quad but suitable soil does not occur on-site.
Ericameria palmeri var. palmeri	Palmer's goldenbush	Asteraceae	1B.1	-/-	X	X	В	Shrub (evergreen), Jul-Nov	Mesic chaparral, coastal scrub; 30-600 m	Low; known to occur in Project quad but suitable habitat does not occur on- site.
Ferocactus viridescens	coast barrel cactus, San Diego barrel cactus	Cactaceae	2B.1	-/-		X	В	Perennial (stem succulent), May-Jun	Chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 3-450 m	Low; known to occur in Project quad and very marginally suitable habitat occurs on-site, but would have been detectable and was not observed.
Grindelia hallii (G. hirsutula var. hallii)	San Diego gumplant	Asteraceae	1B.2	-/-			A	Perennial herb, Jul-Oct	Chaparral, lower montane coniferous forest, meadows & seeps, valley & foothill grassland; 185-1745 m	Low; known to occur in Project quad and very marginally suitable habitat occurs on-site, but would have been detectable 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; known to occur in Project quad but suitable soil does not occur on-site.
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; not known to occur in Project quad and only very marginally suitable habitat occurs on-site.
Horkelia truncata	Ramona horkelia	Rosaceae	1B.3	-/-			A	Perennial herb, May-Jun	Clay or gabbroic soils in chaparral, cismontane woodland; 400-1300 m	Low; known to occur in Project quad but suitable soil does not occur on-site.

Acanthomintha ilicifolia	thornmint, San Diego thorn-mint	Lamiaceae	1B.1	SE/FT	X	X	A	Annual herb, Apr-Jun	Clay soil, openings in chaparral, coastal scrub, valley & foothill grassland, vernal pools; 10-960 m	Low; known to occur in Project quad but suitable habitat does not occur onsite.
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; known to occur in Project quad but suitable habitat does not occur on- site.
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; known to occur in Project quad but suitable habitat does not occur on- site.
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 known to occur in Project quad and suitable habitat does not occur on-site.
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; known to occur in Project quad but suitable habitat does not occur on- site.
Piperia cooperi	Cooper's rein orchid, chaparral rein orchid	Orchidaceae	4.2	-/-			D	Perennial herb, Mar-Jun	Chaparral, cismontane woodland, valley & foothill grassland; 15- 1585 m	Low; known to occur in Project quad and very marginally suitable habitat occurs on-site, but would have been detectable 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; known to occur in Project quad but suitable habitat does not occur on- site.
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; known to occur in Project quad and very marginally suitable habitat occurs on-site, but would have been detectable and was not observed.
Stipa diegoensis (Achnatherum diegoense)	San Diego needlegrass, San Diego County needle grass	Poaceae	4.2	-/-			D	Perennial herb, Feb-Jun	Rocky, often mesic areas in chaparral, coastal scrub; 10-800 m	Low; known to occur in Project quad but suitable habitat does not occur onsite.
Xanthisma junceum (Machaeranthera juncea)	rush chaparral-star, rush- like bristleweed	Asteraceae	4.3	-/-			D	Perennial herb, Jun-Jan	Chaparral, coastal scrub; 240- 1000 m	Low; known to occur in Project quad but suitable habitat does not occur on- site.

Acanthomintha ilicifolia	thornmint, San Diego	Lamiaceae	1B.1	SE/FT	X	X	Α	Annual herb,	Clay soil, openings in chaparral,	Low; known to occur in Project quad
	thorn-mint							Apr-Jun	coastal scrub, valley & foothill	but suitable habitat does not occur on-
									grassland, vernal pools; 10-960 m	site.

or no current threats known)

.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

#### **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

State of California species designations (CDFW April 2013) Federal species designations (CDFW April 2013, USFWS 2013)

SE - State-listed Endangered FE - Federally-listed Endangered ST - State-listed Threatened FT - Federally-listed Threatened SR - State-listed Rare 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

MSCP - an X in this column indicates the species is included in the Multiple Species Conservation Program (MSCP Plan 1998)

#### 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,

	SPECIAL-STATUS ANIMA					CCUR ON THE LIBERTY HIGH SCHOOL PRO 184 METERS [532 - 605 FT])	OJECT SITE
Species Name	Common Name	State/Federal				Habitat	Potential to Occur Onsite
INVERTEBRATES							
Danaus plexippus	monarch butterfly	-/-				Land with host plant milkweeds (Asclepias spp.) or nectar plants.	Low; neither milkweed nor nectar plants were observed on-site.
Euphydryas editha quino	Quino checkerspot butterfly	-/ <b>FE</b>	X			Open grassy areas, interior foothills, host-plant is Plantago erecta, Plantago ovata, Castilleja exserta; 0- 1000ft.	Low; not known to occur in Project quad and host plants were not observed.
Lycaena hermes	Hermes copper	-/-				Coastal sage scrub, mixed chaparral and chamise chaparral; 0-3000ft. Host plant is <i>Rhamnus crocea</i> .	Low; known to occur in Project quad but suitable habitat does not occur on-site.
AMPHIBIANS		<u>l</u>					
Spea hammondii	western spadefoot	SSC/BLM-S				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	
REPTILES			1				
Anniella stebbinsi (formerly A. pulchra pulchra)	Southern California legless lizard (formerly silvery legless lizard)	SSC/-			1	Loose soil and leaf litter with plant cover in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks; often under surface objects such as rocks, boards, driftwood, and logs; sometimes found in suburban gardens in southern California; lives mostly underground.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
Aspidoscelis hyperythra (Cnemidophorus hyperythrus)	orange-throated whiptail	SSC/-		X		Coastal sage scrub, mixed chaparral, grassland, riparian, and chamise chaparral habitats. Open hillsides with brush and rock, well drained soils; 1-1000ft.	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.
Aspidoscelis tigris stejnegeri (Cnemidophorus t. s.)	coastal whiptail	-/-		-		Found in hot, dry open areas with sparse foliage such as chaparral, woodland, and riparian areas mostly west of the Peninsular Ranges.	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.
Coleonyx variegatus abbotti	San Diego banded gecko	-/-			:	Interior coastal region, west of Peninsular ranges, prefers rocky areas in coastal sage and chaparral, nocturnal, hibernates in winter	Low; not known to occur in Project quad and suitable habitat does not occur on-site.

Species Name	Common Name	State/Federal	Cnty	MSCP	Cnty	Habitat	Potential to Occur Onsite
Crotalus ruber	red diamond rattlesnake	SSC/-			2	Coastal sage scrub, mixed chaparral, open grassy areas and agricultural areas, chamise chaparral, pinon juniper and desert scrub; 0-3000ft.	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.
Phrynosoma blainvillii (Anota coronatum, P. c.)	Blainville's horned lizard, coast horned lizard	SSC/BLM-S, USFS-S		X	2	Coastal sage scrub with harvester ants ( <i>Pogonomyrmex</i> spp.).	Low; known to occur in Project quad and Pogonomyrmex rugosus were common on-site but coastal sage scrub does not occur on-site.
Plestiodon skiltonianus interparietalis (Eumeces s. i.)	Coronado skink	SSC/BLM-S			2	Coastal sage scrub, grassland, riparian, near vernal pools, oak woodlands, chamise chaparral, mixed conifer, closed cone forests, and freshwater marshes.	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.
Thamnophis hammondii	two-striped garter snake	SSC/BLM-S, USFS-S			1	In or near permanent fresh water, often along streams with rocky beds bordered by willows or other streamside growth. Sometimes near vernal pools; 0-1000ft.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
BIRDS		"					
Accipiter cooperii	Cooper's hawk	WL/-		X	1	Riparian and oak woodlands, eucalyptus groves and other forested areas; 500-3000ft.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
Aimophila ruficeps canescens	Southern California rufous- crowned sparrow	WL/-		X	1	Sparse, mixed chaparral and coastal scrub habitats (especially coastal sage). Frequents relatively steep, often rocky hillsides with grass and forb patches; 0-3000ft.	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.
Ammodramus savannarum	grasshopper sparrow	SSC/-		X	1	Short- to middle-height, moderately open grasslands with scattered shrubs, native bunchgrasses preferred; hard to identify except when singing (Mar-Jul).	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.
Aquila chrysaetos	golden eagle	FP, WL, CDF-S/ BLM-S, BCC	X	X	1	Mountains, foothills, and adjacent grassland, open areas and canyons; 0-3000ft. (nesting/wintering)	Low; not known to occur in Project quad and suitable habitat does not occur on-site.
Ardea herodias	great blue heron	CDF-S/-			2	Year-round in wetlands of all kinds, also forages in uplands for gophers and rats, nests in tall trees.	Low; not known to occur in Project quad and only very marginally suitable habitat occurs onsite.
Athene cunicularia	burrowing owl	SSC/BCC, BLM-S	X	X	1	Open, dry grasslands, agricultural and range lands, shrub and desert habitats of low-growing open vegetation (associated with burrowing animals).	Low; not known to occur in Project quad and only very marginally suitable habitat occurs onsite.
Buteo regalis	ferruginous hawk	WL/BCC		X	1	Uncommon winter visitor to SD County, forages over larger tracts of grassland, especially those >12 miles inland.	Low; not known to occur in Project quad or surrounding quads and only very marginally suitable habitat occurs on-site.
Buteo swainsoni	Swainson's hawk	ST/BCC, USFS-S		X	1	Winters in desert scrub; 0-500ft.	Low; known to occur in Project quad but suitable habitat does not occur on-site.

Species Name	Common Name	State/Federal	Cnty M	ISCP	Cnty	Habitat	Potential to Occur Onsite
Campylorhynchus	coastal cactus wren,	SSC/BCC, USFS-	X	X	1	Open coastal sage scrub with thickets of chollas	Low; known to occur in Project quad but suitable
brunneicapillus sandiegensis	San Diego cactus wren	S				( <i>Cylindropuntia</i> sp.), south- and west-facing slopes below 1,500 ft, usually within quarter mile of river valleys.	habitat does not occur on-site.
Cathartes aura	turkey vulture	-/-			1	Dry open country or along roadsides; coastal sage scrub, mixed and chamise chaparral, grassland, riparian, mixed conifer and closed cone forest; 0 to over 3000ft.	Low; suitable habitat does not occur on-site.
Circus cyaneus	northern harrier	SSC/-		X	1	Year-round resident but more common in winter; nests on ground in marsh or other dense vegetation, forages over grasslands.	Low; not known to occur in Project quad and only very marginally suitable foraging habitat occurs on-site.
Elanus leucurus	white-tailed kite	FP/-			1	Widespread over coastal slope, prefers riparian woodlands, oak groves, or sycamore groves adjacent to grassland; feeds almost exclusively on California vole.	Low; not known to occur in Project quad and suitable habitat does not occur on-site.
Eremophila alpestris actia	California horned lark	WL/-			2	Open patches of bare land alternating with low vegetation in grasslands, montane meadows, and sagebrush plains.	Low; not known to occur in Project quad and only very marginally suitable foraging habitat occurs on-site.
Falco mexicanus	prairie falcon	WL/BCC			1	Mountainous grasslands, open hills, open plains; 0 to over 3000ft.	Low; not known to occur in Project quad and only very marginally suitable foraging habitat occurs on-site.
Icteria virens	yellow-breasted chat	SSC/-			1	Summer visitor in dense riparian woodland, most common in coastal lowland, strongly concentrated in NW corner of County; usually return to SD second week in April and start to leave by early August.	
Lanius ludovicianus	loggerhead shrike	SSC/BCC			1	Open fields with scattered trees, open woodland, scrub, agricultural land, desert wash, desert-edge scrub, beach areas, broken chapparal.	Low; not known to occur in Project quad and only very marginally suitable foraging habitat occurs on-site.
Larus californicus	California gull	WL/-			2	In winter at beaches, bays, estuaries, and lakes/reservoirs through coastal lowland, and occasionally at higher elevation lakes; uncommon to rare in summer	Low; not known to occur in Project quad and suitable habitat does not occur on-site.
Polioptila californica californica	coastal California gnatcatcher	SSC/FT		X	1	Coastal sagebrush scrub especially where California sage ( <i>Artemisia californica</i> ) is dominant plant; up to 3000 ft but 90% at 1000 ft or lower.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
Vireo bellii pusillus	least Bell's vireo	SE/FE	X	X	1	Riparian vegetation along rivers and larger creeks, with both riparian canopy and somewhat a dense or shrubby understory for nesting.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
MAMMALS						understory for nesting.	<u> </u>

Species Name	Common Name	State/Federal	Cnty MSCI	Cnty	Habitat	Potential to Occur Onsite
Antrozous pallidus	pallid bat	SSC/BLM-S, USFS-S		2	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, desert wash and desert scrub. Prefers rocky outcrops, cliffs and crevices with access to open habitats for foraging.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
Chaetodipus californicus femoralis	Dulzura California pocket mouse	SSC/-		2	Coastal sage scrub, mixed chaparral, oak woodland, chamise chaparral, and mixed conifer habitats; 0 to over 3000ft.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	SSC/-		2	Sandy, herbaceous areas, usually associated with rocks or coarse gravel, in coastal scrub, chaparral, grasslands, sagebrush in western San Diego County; nocturnal.	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.
Choeronycteris mexicana	Mexican long-tongued bat	SSC/-		2	In CA, found in residential areas, roosts in garages, sheds, porches, and under houses on stilts; feeds on pollen and nectar, especially of agaves and columnar cacti, and will visit hummingbird feeders and possibly avocado flowers; seen in fall and winter, presumed to not breed in CA.	Low; known to occur in Project quad but suitable food plants do not occur on-site.
Corynorhinus townsendii (Plecotus t. pallescens)	Townsend's big-eared bat	SSC/BLM-S, USFS-S		2	Variety of habitats, most common at mesic sites. Roosts in the open, extremely sensitive to human disturbance.	Low; known to occur in Project quad but site is too close to development.
Eumops perotis californicus	western mastiff bat	SSC/BLM-S		2	Open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting; 500-3000ft.	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	SSC/-		2	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, mixed conifer, and closed cone forest and open areas. Common in irrigated pastures and row crops; 0 to over 3000ft.	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.
Myotis yumanensis	Yuma myotis	-/BLM-S		2	Open forests and woodlands with water bodies over which to forage, roosts in caves, mines, buildings, bridges, and tree cavities.	Low; not known to occur in Project quad and suitable habitat does not occur on-site.
Neotoma lepida intermedia	San Diego desert woodrat	SSC/-		2	Coastal sage scrub, oak woodlands and chamise chaparral and rocky outcrops. Nocturnal. Typically associated with cacti; 500-3000ft.	
Nyctinomops femorosaccus	pocketed free-tailed bat	SSC/-		2	Variety of arid areas in southern California; pine-juniper woodlands, desert scrub, palm oases, desert wash, desert riparian; rocky areas with high cliffs.	Low; known to occur in Project quad but suitable habitat does not occur on-site.
Nyctinomops macrotis	big free-tailed bat	SSC/-		2	Dry high elevation forests.	Low; known to occur in Project quad but suitable habitat does not occur on-site.

Species Name	Common Name	State/Federal	Cnty	MSCP	Cnty	Habitat	Potential to Occur Onsite
Odocoileus hemionus (fuliginata)	mule deer, southern mule deer	-/-		X	2	Woodlands, riparian areas, margins of meadows and grasslands, and open shrublands.	Low; not known to occur in Project quad and suitable habitat does not occur on-site.
Onychomys torridus ramona	southern grasshopper mouse	SSC/-			2	Semi-arid to arid scrub with friable soils and low to moderate shrub cover. Carnivorous, preferred food of preference is grasshoppers but will consume seeds, other insects and lizards.	Low; not known to occur in Project quad and suitable habitat does not occur on-site.
Taxidea taxus	American badger	SSC/-		X	2	Most common in drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Low; known to occur in Project quad but only very marginally suitable habitat occurs on-site.

#### **Listing Designations**

Federal Listing (USFWS 2013, CDFW 2011)

FE - Federal-listed Endangered

FT - Federal-listed Threatened

FC - Federal candidate for listing

BCC - US Fish and Wildlife Service Bird of Conservation Concern

BLM-S - Bureau of Land Management Sensitive

USFS-S - US Forest Service Sensitive

State Listing (CDFW 2011, 2013)

SE - State-listed Endangered

ST - State-listed Threatened

SEC - State Endangered Candidate

FP - CA Dept. of Fish and Wildlife Fully Protected

SSC - State Species of Special Concern

WL - CA Dept. of Fish and Wildlife Watch List

CDF-S - CA Dept. of Forestry Sensitive

#### Cnty Group - County of San Diego Sensitive Animal Group (County of San Diego 2010)

- 1 County of SD Sensitive Animal List Group 1
- 2 County of SD Sensitive Animal List Group 2

MSCP - an X in this column indicates the species is included in the Multiple Species Conservation Program (MSCP Plan 1998)