

**BIOLOGICAL TECHNICAL REPORT**

**FOR THE**

**ENCANTO RESIDENTIAL PROJECT**

**LOCATED IN THE CITY OF LAKE FOREST  
ORANGE COUNTY, CALIFORNIA**

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## **1.0 INTRODUCTION**

### **1.1 Background and Scope of Work**

This document provides the results of general biological surveys for the approximately 7.19-acre Encanto Residential Project (the Project) located in the City of Lake Forest, Orange County, California. The 7.19-acre Project site includes the 5.75-acre development area and adjoining 1.44-acre fuel modification zone. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the California Environmental Quality Act (CEQA), Central/Coastal Subregion of the Orange County Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP), and state and federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

The scope of this report includes a discussion of existing conditions for the approximately 7.19-acre Project site, all methods employed regarding the general biological surveys, the documentation of botanical and wildlife resources identified (including special-status species), and an analysis of impacts to biological resources. Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would comply with CEQA requirements, including (1) general reconnaissance survey and vegetation mapping; (2) general biological surveys; (3) habitat assessments for special-status plant species; and (4) habitat assessments for special-status wildlife species. Observations of all plant and wildlife species were recorded during the general biological surveys and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

### **1.2 Project Location**

The Project site is located at 25192 Commercentre Drive in the City of Lake Forest, Orange County, California [Exhibit 1 – Regional Map], within an unsectioned area of Township 6 South, Range 8 West, of the U.S. Geological Survey (USGS) 7.5” quadrangle map El Toro (dated 1968 and photorevised in 1982) [Exhibit 2 – Vicinity Map]. The Project site is bounded on the north by the intersection of Alton Parkway and Commercentre Drive, on the east by Commercentre Drive, on the south by light industrial uses with Arctic Ocean Drive beyond, and on the west by open space<sup>1</sup> with a water tower beyond. The Project site is located within the NCCP/HCP planning area, but outside of the boundaries of the NCCP/HCP Reserve System. The Reserve System boundary concludes immediately to the northeast of the Project site.

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<sup>1</sup> The open space to the west of the Project site is designated as such in the City of Lake Forest’s General Plan.

### **1.3 Project Description**

The proposed Project consists of the development of a gated residential community consisting of approximately 52 two to three-story single-family detached residential units, a private neighborhood park located at the entrance to the residential community, road and utility infrastructure, and landscaped areas on approximately 5.75 acres, with an additional 1.44 acres surrounding the development designated as a fuel modification zone [Exhibits 3 and 4]. While the 1.44-acre fuel modification zone is outside of the Project development boundary, it will be routinely maintained by the Homeowner's Association (HOA) per Orange County Fire Authority requirements. Maintenance of this fuel modification zone has the potential to result in impacts as discussed below in Section 5. Therefore, this report conservatively includes the 1.44-acre fuel modification zone as part of the Project.

## **2.0 METHODOLOGY**

In order to adequately identify biological resources in accordance with the requirements of CEQA, Glenn Lukos Associates (GLA) assembled regulatory and biological data consisting of two main components:

- Performance of a jurisdictional determination of U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and CDFW jurisdiction within the Project site;
- Performance of vegetation mapping for the Project site; and
- Performance of a habitat assessment of the Project site to identify the potential to support special-status plants, including habitats and other physical features that may support special-status wildlife.

GLA reviewed pertinent literature on the flora of the region prior to conducting fieldwork. A thorough archival review was conducted using available literature and other historical records, including a review of the CNDDDB [CDFW 2015], CNPS 8<sup>th</sup> edition online inventory (CNPS 2010), Natural Resource Conservation Service (NRCS) soil data, other pertinent literature, and knowledge of the region. A site-specific general survey within the Project Site was conducted on foot in the proposed development area for each target plant or animal species identified below. Vegetation was mapped directly onto a 100-scale (1"=100') aerial photograph following the currently accepted List of Vegetation Alliances and Associations (or Natural Communities List). The list is based on A Manual of California Vegetation, Second Edition or MCVII, which is the California expression of the National Vegetation Classification. All flora and fauna identified on site are included in the floral and faunal compendia [Appendix A & B].

### **2.1 Summary of Surveys**

GLA biologist David Smith conducted a general survey and habitat assessment of the Project site on February 20, 2015. The biologist documented the vegetation communities, assessed the habitat for the potential to support special-status species, and recorded all plants and animals observed within the Project site during the visit.

### **2.1.1 Literature Search**

Prior to conducting fieldwork, pertinent literature on the flora of the region was examined. A thorough archival review was conducted using available literature and other historical records. These resources included the following:

- CNPS *Inventory of Rare and Endangered Plants of California* (eighth edition). Rare Plant Advisory Committee, David Tibor, Convening Editor, California Native Plant Society. Sacramento, CA x + 388pp; (CNPS 2010); and
- CNDDDB for the USGS 7.5' quadrangle: El Toro (CNDDDB 2015).

### **2.1.2 Vegetation Mapping**

Vegetation communities within the Project site were mapped according to the List of Vegetation Alliances and Associations (or Natural Communities List). The list is based on A Manual of California Vegetation, Second Edition or MCVII, which is the California expression of the National Vegetation Classification. Where necessary, deviations were made when areas did not fit into exact habitat descriptions. Plant communities were mapped in the field directly onto a 100-scale (1"=100') aerial photograph. A vegetation map is included as Exhibit 5. Representative site photographs are included as Exhibit 6.

### **2.1.3 Special-Status Plant Species and Habitats Evaluated for the Project Site**

A literature search was conducted to obtain a list of special-status plants with the potential to occur within the Project site. The CNDDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2010).

## **2.2 Wildlife Resources**

Wildlife species were evaluated and detected during the field survey by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the entire Project Site by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visit. A complete list of wildlife species observed within the Project site is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (CDFG 2008), Standard Common and Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians 6<sup>th</sup> Edition, Collins and Taggart (2009) for amphibians and reptiles, and the American Ornithologists' Union Checklist 7<sup>th</sup> Edition (2009) for birds. The methodology (including any applicable survey protocols) utilized to conduct general surveys, habitat assessments, and/or focused surveys for special-status animals are included below.

## **2.2.1 General Surveys**

### ***Birds***

During the general survey of the Project site, birds were identified incidentally within each habitat type. Birds were detected by both direct observation and by vocalizations, and were recorded in field notes.

### ***Mammals***

During the general survey of the Project site, mammals were identified incidentally within each habitat type. Mammals were detected both by direct observations and by the presence of diagnostic sign (i.e., tracks, burrows, scat, etc.).

### ***Reptiles and Amphibians***

During the general survey of the Project site, reptiles and amphibians were identified incidentally within each habitat type. Habitats were examined for diagnostic reptile sign, which include shed skins, scat, tracks, snake prints, and lizard tail drag marks. All reptiles and amphibian species observed, as well as diagnostic sign, were recorded in field notes.

## **2.2.2 Special-Status Animal Species Evaluated for the Project Site**

A literature search was conducted in order to obtain a list of special-status wildlife species with the potential to occur within the Project site. Species were evaluated based on two factors, including: 1) species identified by the CNDDDB as occurring (either currently or historically) on or in the vicinity of the Project site, and 2) any other special-status animals that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs on the Project site.

## **2.2.3 Habitat Assessment for Special Status Animal Species**

An aerial photograph and soil map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the Project site.

## **2.3 Jurisdictional Determination**

Prior to beginning the field delineation, a 100-scale color aerial photograph and the previously cited USGS topographic map were examined to determine the locations of potential areas of Corps/CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Potential wetland habitats at the Project site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual<sup>2</sup> (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement

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<sup>2</sup> Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

(Arid West Supplement)<sup>3</sup>. The presence of an Ordinary High Water Mark (OHWM) was determined using the 2008 Field Guide to Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States<sup>4</sup> in conjunction with the Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.<sup>5</sup>

### **3.0 REGULATORY SETTING**

The proposed Project is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state- and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities.

#### **3.1 State and/or Federally Listed Plants or Animals**

##### **3.1.1 State of California Endangered Species Act**

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

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<sup>3</sup> U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Version 2.0). Ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

<sup>4</sup> Lichvar, R. W., and S. M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. (<http://www.crrel.usace.army.mil/library/technicalreports/ERDC-CRREL-TR-08-12.pdf>).

<sup>5</sup> Curtis, Katherine E. and Robert Lichevar. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TN-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating “No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided.” Under the CESA, “take” is defined as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Exceptions authorized by the state to allow “take” require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

### **3.1.2 Federal Endangered Species Act**

The FESA of 1973 defines an endangered species as “any species that is in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as “any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to “take” any listed species. “Take” is defined in Section 3(18) of FESA: “...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Further, the USFWS, through regulation, has interpreted the terms “harm” and “harass” to include certain types of habitat modification that result in injury to, or death of species as forms of “take.” These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

### **3.1.3 State and Federal Take Authorizations for Listed Species**

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

- Sections 2090-2097 of the CESA require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

### **3.2 Orange County Central/Coastal Natural Community Conservation Plan/Habitat Conservation Plan**

The NCCP program was established by the California Legislature when it enacted the NCCP Act of 1991 (California Fish and Game Code, Section 2800 et seq.). The purpose of the NCCP program is to provide long-term, regional protection of natural vegetation and wildlife diversity while allowing compatible land uses and appropriate development and growth.

The Southern California Coastal Sage Scrub NCCP program is the pilot program under the State's NCCP Act. The designated five-County regional planning area that comprises the Southern California NCCP study area covers 6,000 square miles and includes Orange County and portions of San Diego, Riverside, San Bernardino and Los Angeles counties. Orange County is further broken into the Coastal/Central Subregion NCCP and Southern Subregion NCCP. The Coastal/Central Subregion NCCP/HCP was approved in 1995, establishing a 37,380 acre reserve system. The Southern Subregion HCP was completed in 2007; however, the NCCP portion is on hold.

Twelve major vegetation types are preserved by the NCCP/HCP plan, in return for authorization of incidental "take" (i.e., harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect) of 39 species of sensitive plants and wildlife within the remaining portions of the 208,000 acre planning area. The Plan also designates non-reserve Special Linkages and Existing Use Areas, which benefit the species covered by the NCCP/HCP plan, but are not subject to reserve adaptive management policies and use restrictions.

The applicants are a non-participating landowner, having not contributed either significant land to the reserve system or funding for the adaptive management program. Non-participating landowners may satisfy the federal and state Endangered Species Act requirements by (1) avoiding on-site take, (2) obtaining federal and state permits through consultation with the USFWS under Section 7 or 10 of the FESA and with CDFG under Section 2081 of the California Fish and Game Code, or (3) payment of a mitigation fee to the Nature Reserve of Orange County. The mitigation fee is currently \$65,000 per acre of coastal sage scrub vegetation impacted.

### **3.3 California Environmental Quality Act**

#### **3.3.1 CEQA Guidelines Section 15380**

CEQA requires evaluation of a project’s impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for state listing. For plants, CDFW recognizes that plants on CRPR 1A, 1B, or 2 of the CNPS *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of plants, which are regionally important, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS CRPR 3 or 4.

#### **3.3.2 Non-Listed Special-Status Plants, Wildlife and Vegetation Communities Evaluated Under CEQA**

##### ***Federally Designated Special-Status Species***

Within recent years, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. This term is employed in this document, but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS.

For this report the following acronyms are used for federal special-status species:

- FE                      Federally listed as Endangered
- FT                      Federally listed as Threatened
- FPE                     Federally proposed for listing as Endangered
- FPT                     Federally proposed for listing as Threatened
- FC                      Federal Candidate Species (former C1 species)
- FSC                     Federal Species of Concern (former C2 species)

##### ***State-Designated Special-Status Species***

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW’s CNDDDB project. Informally listed taxa are not protected, but warrant

consideration in the preparation of biotic assessments. For some species, the CNDDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For this report the following acronyms are used for State special-status species:

- SE State-listed as Endangered
- ST State-listed as Threatened
- SR State-listed as Rare
- SCE State Candidate for listing as Endangered
- SCT State Candidate for listing as Threatened
- SFP State Fully Protected
- SP State Protected
- SSC State Species of Special Concern

### ***CNDDDB Global/State Rankings***

The CNDDDB provides global and state rankings for species and communities based on a system developed by The Nature Conservancy to measure rarity of a species. The ranking provides a shorthand formula about how rare a species/community is, and is based on the best information available from multiple sources, including state and federal listings, and other groups that recognize species as sensitive (e.g., Bureau of Land Management, Audubon Society, etc.). State and global rankings are used to prioritize conservation and protection efforts so that the rarest species/communities receive immediate attention. In both cases, the lower ranking (i.e., G1 or S1) indicates extreme rarity. Rare species are given a ranking from 1 to 3. Species with a ranking of 4 or 5 is considered to be common. If the exact global/state ranking is undetermined, a range is generally provided. For example, a global ranking of “G1G3” indicates that a species/community global rarity is between G1 and G3. If the animal being considered is a subspecies of a broader species, a “T” ranking is attached to the global ranking. The following are descriptions of global and state rankings:

### ***Global Rankings***

- G1 – Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or because of some factor(s) making it especially vulnerable to extinction.
- G2 – Imperiled globally because of rarity (6-20 occurrences), or because of some other factor(s) making it very vulnerable to extinction throughout its range.
- G3 – Either very rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g., a physiographic region), or because of some other factor(s) making it vulnerable to extinction throughout its range.
- G4 – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 – Common, widespread and abundant.

**State Rankings**

- S1 – Extremely rare; typically 5 or fewer known occurrences in the state; or only a few remaining individuals; may be especially vulnerable to extirpation.
- S2 – Very rare; typically between 6 and 20 known occurrences; may be susceptible to becoming extirpated.
- S3 – Rare to uncommon; typically 21 to 50 known occurrences; S3 ranked species are not yet susceptible to becoming extirpated in the state but may be if additional populations are destroyed.
- S4 - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 - Common, widespread, and abundant in the state.

**California Native Plant Society**

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS’s Eighth Edition of the *California Native Plant Society’s Inventory of Rare and Endangered Plants of California* separates plants of interest into five ranks. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. The list serves as the candidate list for listing as threatened and endangered by CDFW. CNPS has developed five categories of rarity that are summarized in Table 3-1.

**Table 3-1. California Rare Plant Rank (CRPR) 1, 2, 3, & 4, and Threat Code Extensions**

<b>CRPR</b>	<b>Comments</b>
Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere	Thought to be extinct in California based on a lack of observation or detection for many years.
Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere	Species, which are generally rare throughout their range that are also judged to be vulnerable to other threats such as declining habitat.
Rank 2A – Plants presumed Extirpated in California, But Common Elsewhere	Species that are presumed extinct in California but more common outside of California
Rank 2B – Plants Rare, Threatened or Endangered in California, But More Common Elsewhere	Species that are rare in California but more common outside of California
Rank 3 – Plants About Which More Information Is Needed (A Review List)	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific rank. In addition, many of the Rank 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.
Rank 4 – Plants of Limited	Species that are currently thought to be limited in distribution or range

Distribution (A Watch List)	whose vulnerability or susceptibility to threat is currently low. In some cases, as noted above for Rank 3 species, CNPS lacks survey data to accurately determine status in California. Many species have been placed on Rank 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
<b>Extension</b>	<b>Comments</b>
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

### 3.4 Jurisdictional Waters

#### 3.4.1 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

- (1) *All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
- (2) *All interstate waters including interstate wetlands;*
- (3) *All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*
  - (i) *Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
  - (ii) *From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or*
  - (iii) *Which are used or could be used for industrial purpose by industries in interstate commerce;*
- (4) *All impoundments of waters otherwise defined as waters of the United States under the definition;*
- (5) *Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;*
- (6) *The territorial seas;*
- (7) *Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.*
- (8) *Waters of the United States do not include prior converted cropland.<sup>6</sup>*

<sup>6</sup> The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess

*Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.*

Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions.” In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands<sup>7</sup>);
- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with “problematic hydrophytic vegetation”, which require a minimum of 14 days of ponding to be considered a wetland.

On January 9, 2001 and June 5, 2007 the Supreme Court of the United States issued two rulings (Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al [SWANCC] and Rapanos v. United States and Carabell v. United States [Rapanos], respectively). The first case reiterated that “isolated” waters (those with no interstate commerce connection) are not subject to federal jurisdiction under Section 404 of the Clean Water Act. The second case determined (in a plurality vote) that a water must have a nexus with a “traditionally navigable water (an undefined term) to be subject to federal jurisdiction under Section 404 of the Clean Water Act. The Corps and EPA continue to grapple with providing clear guidance on these two decisions and continue to propose and/or issue guidance. In the

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water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season....” [Emphasis added.]

<sup>7</sup> Lichvar, R. W. 2013. *The National Wetland Plant List*: 2013 wetland ratings. Phytoneuron 2013-49: 1-241.

meantime, applicants who believe they have waters that would be exempt from federal jurisdiction pursuant to these two rulings must go through a formal process with the Corps and EPA to obtain concurrence.

### **3.4.2 Regional Water Quality Control Board**

Section 401 of the Clean Water Act requires any applicant for a Section 404 permit to obtain certification from the State that the discharge (and the operation of the facility being constructed) will comply with the applicable effluent limitation and water quality standards. In California, this 401 certification is typically obtained from the Regional Water Quality Control Board. The Corps, by law, cannot issue a Section 404 permit until a 401 certification is issued or waived.

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.<sup>8</sup> The memorandum stating that for waters that are no longer considered subject to federal jurisdiction pursuant to Section 404 of the Clean Water Act, but which remain "waters of the state", the State will continue to regulate discharges under the Porter-Cologne Act. In such cases the applicant must apply for and obtain a Waste Discharge Requirement from the Regional Board.

### **3.4.3 California Department of Fish and Wildlife**

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs."

CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFW Legal Advisor has prepared the following opinion<sup>9</sup>:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFW] as natural waterways...

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<sup>8</sup> Wilson, Craig M. January 25, 2001. Memorandum addressed to State Board Members and Regional Board Executive Officers.

<sup>9</sup> California Department of Fish and Game. Environmental Services Division (ESD). 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code.

- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFW jurisdictional limits closely mirror those of the Corps. Exceptions are CDFW's addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

## **4.0 RESULTS**

This section provides the results of the general survey, vegetation mapping, habitat assessment, and jurisdictional determination of the Project site.

### **4.1 Existing Conditions**

The Project site was previously rough graded and is currently undeveloped with the exception of a fenced gravel-surfaced parking lot and associated light fixtures on the northeastern and southeastern perimeter. The 28,000 cubic yard stockpile that was present near the parking lot at the time of the field study has since been removed as part of the Shea Baker project. The Project site has been maintained and compacted in its rough graded condition, leaving the soil and vegetation within it highly disturbed. The fuel modification zones have also been maintained in a cleared and/or thinned condition to comply with fuel modification zone regulations.

### **4.2 Vegetation Mapping**

As stated above, the Project site has been maintained and compacted in its rough graded condition, leaving the soil and vegetation within it highly disturbed. As such, the entire Project site is mapped as “Disturbed/Developed.” No other vegetation communities are present within the Project site.

Disturbed portions of the site consist of areas that lack vegetation but still retain a pervious surface, or are dominated by a cover of ruderal vegetation including black mustard (*Brassica nigra*), bristly ox-tongue (*Picris echioides*), common wild oat (*Avena fatua*), and Russian-thistle (*Salsola tragus*). A few (less than 10) scattered individuals of California sagebrush (*Artemisia californica*), coyote bush (*Baccharis pilularis*), and mulefat (*Baccharis salicifolia*) occur on the manufactured slope located west of the development area. The entire site, with the exception of the areas comprising the gravel-surfaced parking lot, is disturbed. The gravel-surfaced parking lot makes up the developed portion of the site.

### **4.3 Special-Status Habitats**

The CNDDDB identifies the following four special-status vegetation communities for the El Toro quadrangle map: Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Sycamore Alder Riparian Woodland, and Southern Riparian Scrub.

The Project site does not contain any special-status vegetation types, including those identified by the CNDDDB.

#### 4.4 Special-Status Plants

No special-status plants are expected to occur at the Project site. Table 4-1 provides a list of special-status plants evaluated for the Project site during the general survey and habitat assessment. Species were evaluated based on the following factors: 1) species identified by the CNDDDB and CNPS as occurring (either currently or historically) on or in the vicinity of the Project site, and 2) any other special-status plants that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs within the site.

**Table 4-1. Special-Status Plants Evaluated for the Project Site**

<b><u>Status</u></b>	
<b>Federal</b>	<b>State</b>
FE – Federally Endangered	SE – State Endangered
FT – Federally Threatened	ST – State Threatened
FC – Federal Candidate	
<b>CRPR</b>	
Rank 1A – Plants presumed extirpated in California and either rare or extinct elsewhere.	
Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.	
Rank 2A – Plants presumed extirpated in California, but common elsewhere.	
Rank 2B – Plants rare, threatened, or endangered in California, but more common elsewhere.	
Rank 3 – Plants about which more information is needed (a review list).	
Rank 4 – Plants of limited distribution (a watch list).	
<b>Threat Code extension</b>	
.1 – Seriously endangered in California (over 80% occurrences threatened)	
.2 – Fairly endangered in California (20-80% occurrences threatened)	
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)	
<b><u>Occurrence</u></b>	
<ul style="list-style-type: none"> <li>• Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.</li> <li>• Absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.</li> <li>• Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.</li> <li>• Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.</li> <li>• Present – The species was detected onsite incidentally or through focused surveys.</li> </ul>	

<b>Species Name</b>	<b>Status</b>	<b>Habitat Requirements</b>	<b>Occurrence</b>
Allen's pentachaeta <i>Pentachaeta aurea ssp. allenii</i>	Federal: None State: None CRPR: 1B.1	Openings in coastal sage scrub, and valley and foothill grasslands.	Not expected to occur due to lack of suitable habitat and/or history of site disturbance.
Chaparral nolina <i>Nolina cismontana</i>	Federal: None State: None CRPR: 1B.2	Chaparral, coastal sage scrub. Occurring on sandstone or gabbro substrates.	Does not occur onsite.
Chaparral ragwort <i>Senecio aphanactis</i>	Federal: None State: None CRPR: List 2B.2	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils.	Not expected to occur due to lack of suitable habitat and/or history of site disturbance.
Intermediate mariposa-lily <i>Calochortus weedii var. intermedius</i>	Federal: None State: None CRPR: 1B.2	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland.	Not expected to occur due to lack of suitable habitat and/or history of site disturbance.
Intermediate monardella <i>Monardella hypoleuca ssp. intermedia</i>	Federal: None State: None CRPR: 1B.3	Usually in the understory of chaparral, cismontane woodland, and lower montane coniferous forest (sometimes)	Does not occur onsite.
Many-stemmed dudleya <i>Dudleya multicaulis</i>	Federal: None State: None CRPR: 1B.2	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Not expected to occur due to lack of suitable habitat and/or history of site disturbance.
Mud nama <i>Nama stenocarpum</i>	Federal: None State: None CRPR: 2B.2	Marshes and swamps	Does not occur onsite.
Robinson's pepper grass <i>Lepidium virginicum var. robinsonii</i>	Federal: None State: None CRPR: 4.3	Chaparral, coastal sage scrub	Not expected to occur due to lack of suitable habitat and/or history of site disturbance.
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	Federal: FT State: SE CRPR: 1B.1	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	Not expected to occur due to lack of suitable habitat and/or history of site disturbance.

#### **4.5 Special-Status Animals**

No special-status animals were detected at the Project site. Table 4-2 provides a list of special-status animals evaluated for the Project site during the general survey and habitat assessments. Species were evaluated based on the following factors, including: 1) species identified by the CNDDDB as occurring (either currently or historically) on or in the vicinity of the Project site, and 2) any other special-status animals that are known to occur within the vicinity of the Project site, for which potentially suitable habitat occurs on the site.

**Table 4-2. Special Status Animals Evaluated for the Project Site**

<b>Status</b>	
<b>Federal</b>	<b>State</b>
FE – Federally Endangered	SE – State Endangered
FT – Federally Threatened	ST – State Threatened
FPT – Federally Proposed Threatened	SC – State Candidate
FC – Federal Candidate	CFP – California Fully-Protected Species
BGEPA – Bald and Golden Eagle Protection Act	SSC – Species of Special Concern
<b>Western Bat Working Group (WBWG)</b>	
H – High Priority	
LM – Low-Medium Priority	
M – Medium Priority	
MH – Medium-High Priority	
<b>Occurrence</b>	
<ul style="list-style-type: none"> <li>• Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.</li> <li>• Absent – The species is absent from the site, either because the site lacks suitable habitat for the species, the site is located outside of the known range of the species, or focused surveys has confirmed the absence of the species.</li> <li>• Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.</li> <li>• Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.</li> <li>• Present – The species was detected onsite incidentally or through focused surveys.</li> </ul>	

Species Name	Status	Habitat Requirements	Occurrence
<b>Invertebrates</b>			
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	Federal: FE State: None	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Does not occur due to lack of suitable habitat.
<b>Amphibians</b>			
Arroyo toad <i>Anaxyrus californicus</i>	Federal: FE State: SSC	Breed/forage/aestivate in aquatic habitats, riparian, CSS, oak, and chaparral habitats. Breeding pools must be open and shallow w/ minimal current, and w/ a sand or pea gravel substrate overlain with sand or flocculent silt. Adjacent banks w/ sandy or gravely terraces and little herbaceous cover for adult and juvenile foraging areas, w/i a moderate riparian canopy of cottonwood, willow, or oak.	Does not occur due to lack of suitable habitat.

<b>Species Name</b>	<b>Status</b>	<b>Habitat Requirements</b>	<b>Occurrence</b>
Western spadefoot <i>Spea hammondi</i>	Federal: None State: SSC	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur due to lack of suitable habitat.
<b>Reptiles</b>			
Coast horned lizard <i>Phrynosoma blainvillii</i>	Federal: None State: SSC	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Low potential to occur.
Coast patch-nosed snake <i>Salvadora hexalepis virgulata</i>	Federal: None State: SSC	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Not expected to occur on site.
Coastal whiptail <i>Aspidoscelis tigris stejnegeri</i>	Federal: None State: None	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Low potential to occur.
Orangethroat whiptail <i>Aspidoscelis hyperythra</i>	Federal: None State: SSC	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Low potential to occur.
Red-diamond rattlesnake <i>Crotalus ruber</i>	Federal: None State: SSC	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Low potential to occur.
Two-striped garter snake <i>Thamnophis hammondi</i>	Federal: None State: SSC	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Does not occur on site.
Western pond turtle <i>Emys marmorata</i>	Federal: None State: SSC	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Does not occur on site.

Species Name	Status	Habitat Requirements	Occurrence
<b>Birds</b>			
Burrowing owl (burrow sites & some wintering sites) <i>Athene cunicularia</i>	Federal: BCC State: SSC	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Not expected to occur on site.
California horned lark <i>Eremophila alpestris actia</i>	Federal: None State: WL	Occupies a variety of open habitats, usually where trees and large shrubs are absent.	Low potential to occur.
Coastal cactus wren (San Diego & Orange County only) <i>Campylorhynchus brunneicapillus sandiegensis</i>	Federal: BCC State: SSC	Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.	Does not occur on site.
Coastal California gnatcatcher <i>Polioptila californica californica</i>	Federal: FT State: SSC	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur on site.
Cooper's hawk (nesting) <i>Accipiter cooperi</i>	Federal: None State: WL	Primarily occurs in riparian areas and oak woodlands, most commonly in montane canyons. Known to use urban areas, occupying trees among residential and commercial.	Does not occur on site. May utilize site for foraging only.
Ferruginous hawk (wintering) <i>Buteo regalis</i>	Federal: BCC State: WL	Open, dry country, perching on trees, posts, and mounds. In California, wintering habitat consists of open terrain and grasslands of the plains and foothills.	Does not occur on site. May utilize site for foraging only.
Grasshopper sparrow (nesting) <i>Ammodramus savannarum</i>	Federal: None State: SSC	Open grassland and prairies with patches of bare ground.	Does not occur on site.
Least Bell's vireo (nesting) <i>Vireo bellii pusillus</i>	Federal: FE State: SE	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Does not occur on site.

Species Name	Status	Habitat Requirements	Occurrence
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	Federal: None State: WL	Grass covered hillsides, coastal sage scrub, and chaparral.	Does not occur on site.
White-tailed kite (nesting) <i>Elanus leucurus</i>	Federal: None State: FP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Does not occur on site. May utilize site for foraging only.
Yellow-breasted chat (nesting) <i>Icteria virens</i>	Federal: None State: SSC	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur on site.
<b>Mammals</b>			
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	Federal: None State: SSC	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Does not occur on site.
Western mastiff bat <i>Eumops perotis californicus</i>	Federal: None State: SSC WBWG: H	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Does not occur on site.

### 4.5.3 Critical Habitat

The Project area is not located within any USFWS-designated critical habitat areas. The closest area of critical habitat is for the coastal California gnatcatcher (*Polioptila californica californica*), located approximately one mile to the northwest of the Project site.

### 4.6 Raptor Use

Due to the disturbed and maintained condition of the Project site, the site provides only marginal foraging habitat for a number of raptor species, including: Cooper's hawk, red-tailed hawk and white-tailed kite. The light fixtures associated with the gravel-surfaced parking lot did not support any nests at the top or display any prior signs of nesting, and there are no mature trees on site that would provide suitable raptor nesting habitat.

#### **4.7 Nesting Birds**

Due to the disturbed and maintained condition of the Project site, the site provides very limited suitable habitat for ground-nesting migratory birds.

#### **4.8 Soil Mapping**

The Natural Resource Conservation Service (NRCS) identifies the following soil types (series) as occurring (currently or historically) within the Project site [Exhibit 7]:

##### **Capistrano Sandy Loam, 2 to 9 Percent Slopes**

The mean annual soil temperature is 60 degrees to 65 degrees F at depth of 20 inches and the soil temperature is usually not below 47 degrees F at any time. The soil between depths of 8 and 25 inches is continuously dry in all parts from late April or May until late October and is usually moist in some part all the rest of the year. The 10- to 40-inch control section and usually all parts of the profile are sandy loam, coarse sandy loam or fine sandy loam and have less than 18 percent clay. The average combined silt, very fine sand and clay is assumed to be less than 50 percent. No distinct stratification is present. Rock fragments in the control section range from 0 to 3 percent, by volume, and are usually less than 3 inches in diameter.

##### **Cieneba Sandy Loam, 30 to 75 Percent Slopes, Eroded**

The Cieneba series consists of somewhat excessively drained soils on uplands. Slopes range from 5 to 75 percent. These soils formed in coarse-grained igneous rock. Elevations range from 900 to 3,500 feet. The average annual rainfall ranges from 9 to 16 inches, the average annual temperature from 59 to 65 F, and the average frost-free season from 220 to 300 days. The vegetation is chiefly annual grasses, chamise, and flat-top buckwheat.

##### **Corralitos Loamy Sand**

The mean annual soil temperature is about 60 to 65 degrees F and the soil temperature usually is not below 47 degrees F at any time. The mean winter soil temperature is about 54 to 58 degrees F and the mean summer soil temperature is about 65 to 70 degrees F. The soil between depths of about 12 and 35 inches is usually dry all of the time from late April or May until November or early December and is moist in some or all parts all the rest of the year.

Rock fragments are mostly of gravel size and make up less than 15 percent of the soil and in most pedons less than 5 percent of soil. Textures are sand, loamy sand, fine sand or loamy fine sand to a depth of 40 inches or more. Dominant sand sizes are medium and fine sand. Coarse and very coarse sand combined is less than 35 percent. The profile is stratified, but strata finer than loamy fine sand are lacking to a depth of more than 40 inches. The soil is dominantly slightly to strongly acid but some strata in some pedons are neutral.

### **Myford Sandy Loam, 9 to 30 Percent Slopes, Eroded**

The solum ranges from 45 to 75 inches thick. Mean annual soil temperature at a depth of 20 inches is 60 to 63 degrees F. The soil between depths of about 5 and 15 inches is usually moist in some part from about November 15 until late May, and is continuously dry the rest of the year.

### **San Andreas Sandy Loam, 15 to 30 Percent Slopes**

Depth to the paralithic contact is 20 to 40 inches. The mean annual soil temperature at a depth of 20 inches is 60 to 66 degrees F. The soil temperature in the winter for most years is above 47 degrees F. Soil between the depths of about 8 and 24 inches is usually dry all of the time from May until November or early December and usually is moist all the rest of the year. The soils are sandy loam, fine sandy loam or loam with less than 18 percent clay. They are neutral to medium acid.

## **4.9 Jurisdictional Determination**

The Project site was previously rough graded and is currently undeveloped with the exception of a gravel-surfaced parking lot on the northeastern and southeastern perimeter. The Project site has been maintained and compacted in its rough graded condition; therefore, no jurisdictional features occur onsite.

The project site is located within the San Diego Creek Watershed, which encompasses portions of the Cities of Irvine, Tustin, Santa Ana, and Lake Forest and unincorporated Orange County. Within this watershed, the U.S. Army Corps of Engineers has developed a Special Area Management Plan (SAMP) to establish an alternative permitting process involving the following features: a new Regional General Permit (RGP), a new Letter of Permission (LOP) procedures for activities that would not substantially affect aquatic resource functions and values; and the revocation of selected Nationwide Permits (NWP). If jurisdictional features had occurred on site, and if the Project would have resulted in impacts to those features, then the project would be subject to the alternative permitting process. However, since there are no jurisdictional features on site, the alternative permitting process under the SAMP framework is not applicable to the project.

## **5.0 IMPACT ANALYSIS**

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of the Project implementation. Impacts (or effects) can occur in two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the removal of individual plants or animals, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Indirect impacts pertain to those impacts that result in a change to the physical environment, but which is not immediately related to a project. Indirect (or secondary) impacts are those that are reasonably foreseeable and caused by a project, but occur at a different time or place. Indirect impacts can occur at the urban/wildland interface of projects, to biological resources located downstream from projects, and other off site areas where the effects of the project may be experienced by plants and wildlife. Examples of indirect impacts include the effects of increases in ambient levels of noise or light; predation by domestic pets; competition with exotic plants and animals; introduction of toxics, including pesticides; and other human disturbances such as hiking, off-road vehicle use, unauthorized dumping, etc. Indirect impacts are often attributed to the subsequent day-to-day activities associated with project build-out, such as increased noise, the use of artificial light sources, and invasive ornamental plantings that may encroach into native areas. Indirect effects may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects” and may result in a slow replacement of native plants by non-native invasives, as well as changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact can occur from multiple individual effects from the same project, or from several projects. The cumulative impact from several projects is the change in the environment resulting from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

## **5.1 California Environmental Quality Act (CEQA)**

### **5.1.1 Thresholds of Significance**

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California:

*“Prevent the elimination of fish or wildlife species due to man’s activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities...”*

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily

in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

*“The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ...”*

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

### **5.1.2 Criteria for Determining Significance Pursuant to CEQA**

Appendix G of the 1998 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

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

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

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

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

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

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

## **5.2 Impacts to Native Vegetation**

The entire Project site is categorized as “Disturbed/Developed.” The few scattered individuals of native vegetation that occur on the manufactured slope currently undergo routine maintenance and would not comprise a native vegetation community. Therefore, the Project would not impact native vegetation communities.

## **5.3 Impacts to Special-Status Plants**

The disturbed and maintained condition of the site is generally not suitable to support special-status plants, and none were observed during the general survey and habitat assessment. Therefore, implementation of the Project would not impact special-status plants.

## **5.4 Impacts to Special-Status Animals**

The disturbed and maintained condition of the site is generally not suitable to support special-status animals, and none were observed during the general survey and habitat assessment. Certain reptiles and birds have a low potential to occur; however, impacts to these species would be less than significant due to the small area of impact and higher quality of habitat in adjacent open space. Impacts to marginal foraging habitat for raptors would be less than significant due to the small area of impact and higher quality of habitat in adjacent open space.<sup>10</sup> Therefore, implementation of the Project would not have a significant impact on special-status animals.

## **5.5 Impacts to Critical Habitat**

The Project site is not located within areas designated as critical habitat by the USFWS; therefore, the Project would not impact critical habitat.

## **5.6 Impacts to Nesting Birds**

Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Due to the disturbed and maintained condition of the Project site, the site provides very limited suitable habitat for ground-nesting migratory birds. If vegetation is allowed to persist within the Project site, the Project would have the potential to impact active bird nests if vegetation is removed during the nesting season (February 1 to August 31). Mitigation measures are identified in Section 6.0 of this report to avoid impacts to nesting birds.

## **5.7 Impacts to Jurisdictional Waters**

No jurisdictional features occur within the Project site; therefore, implementation of the Project would not impact jurisdictional waters.

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<sup>10</sup> The open space to the west of the Project site is designated as such in the City of Lake Forest’s General Plan.

## **5.8 Indirect Impacts to Biological Resources**

In the context of biological resources, indirect effects are those effects associated with developing areas adjacent to adjacent native open space. Potential indirect effects associated with development include water quality impacts with drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. Temporary, indirect effects may also occur as a result of construction-related activities.

While the Project site has been rough graded and is maintained in an unvegetated condition, development of the site and the surrounding industrial area resulted in the placement of drainage v-ditches that traverse the fuel modification zones. These drainage ditches outlet flows into an offsite vegetated corridor that is parallel to the western and northern boundaries of the site. The vegetated corridor consists of mulefat thickets and southern willow scrub, and has the potential to support nesting birds.

Routine fuel modification within Fuel Modification Zone B will occur on the existing manufactured landscape slope located on the west side of the Project site, immediately adjacent to the vegetated corridor [Exhibit 3]. The HOA would be responsible for maintaining Zone B. Section 6.0 of this report identifies mitigation measures to reduce indirect effects to nesting birds to below a level of significance.

As currently planned, Residential Lot No. 12 – 26 are located at the top of the manufactured landscape slope located on the west side of the Project site. Lower level porch lighting is anticipated to be attached to the rear of the structures. The slope provides vertical topographic separation from the vegetated corridor to the fenced lot line ranging from 17.5 feet up to 40 feet, while the structures themselves are set back from the rear lot line by another 20 feet. The vegetated corridor is currently subject to lighting spillover caused from street lighting along Alton Parkway and the exterior lights on the industrial buildings located southeast and southwest of the Project site. The ambient lighting conditions, topographic separations provided by the manufactured slope, and setback of the structure ensure that indirect lighting effects onto the vegetated corridor resulting from the Project would be less than significant.

## **5.9 Cumulative Impacts to Biological Resources**

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. “Related projects” refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed project.

The Project site was rough-graded previously and has been maintained in a compacted and unvegetated condition ever since. The analysis of cumulative impacts covered in this report would not take into consideration removal of the habitat that existed on the site before it was rough-graded, since those impacts would have been covered in the original CEQA document (if

one was required at the time) that contemplated grading of the site. Implementation of the Project would not contribute to the cumulative loss of biological resources within central Orange County.

#### **5.10 Orange County Central/Coastal Natural Community Conservation Plan/Habitat Conservation Plan**

The Project would not impact any habitat or species covered by the NCCP/HCP, and is not located within non-reserve Special Linkages or Existing Use Areas. Authorization for take of species and/or payment into the in-lieu fee program is not required.

### **6.0 MITIGATION MEASURES**

The following discussion provides measures to avoid potential impacts to wildlife resources. With implementation, potential impacts to nesting birds will be reduced to below significant.

#### **6.1 Nesting Birds**

If vegetation is allowed to persist within the Project site, the Project would have the potential to impact active bird nests if vegetation is removed during the nesting season. Therefore, if project construction (including fuel modification) is carried out between February 1 and September 15, a qualified biologist shall conduct a nesting bird survey within three days prior to ground and/or vegetation disturbing activities to confirm the absence of nesting birds. If active nests are identified, the biologist shall establish suitable buffers around the nests (e.g., as much as 500 feet for raptors and 300 feet for non-raptors [subject to the recommendations of the biologist]), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

The vegetated corridor that is parallel to the western and northern boundaries of the site consists of mulefat thickets and southern willow scrub, and has the potential to support nesting birds, including special status species. Therefore, if project construction (including fuel modification) is conducted within 300 feet of the vegetated corridor between February 1 and September 15, a qualified biologist shall conduct a nesting bird survey of the vegetated corridor three days prior to ground and/or vegetation disturbing activities to confirm the absence of nesting birds. If special-status species are identified adjacent to the Project site, one or more of the following measures may be implemented: (1) the biologist shall establish suitable buffers around the nests (e.g., as much as 500 feet for raptors and 300 feet for non-raptors), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests, (2) the biologist will recommend noise monitoring and/or noise attenuation structures, and/or (3) consultation with the wildlife agencies (USFWS and/or CDFW) will be initiated.

## 7.0 REFERENCES

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United States Fish and Wildlife Service. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants.

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Source: ESRI World Street Map



Map Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, Esri (India), Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



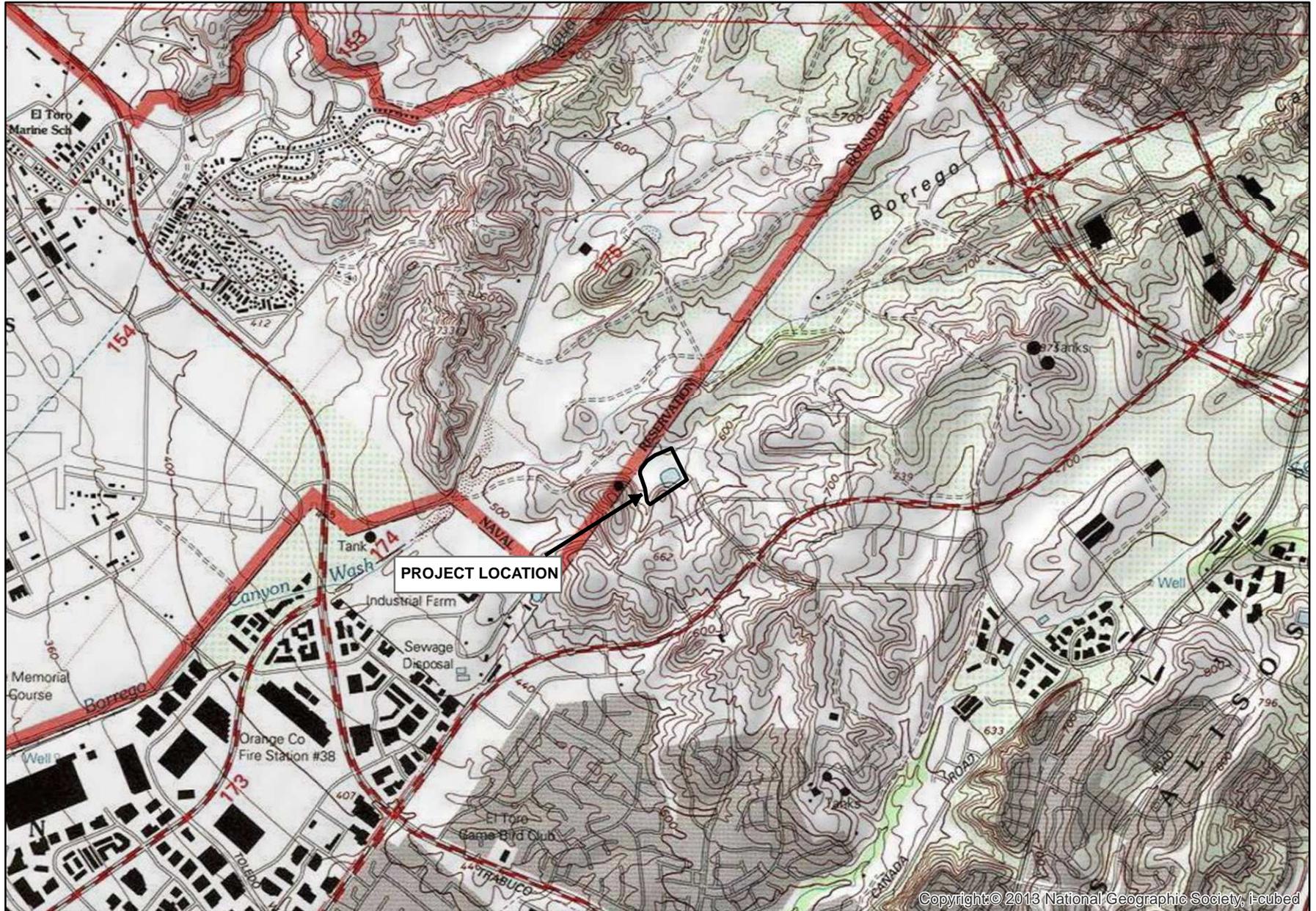
**ENCANTO RESIDENTIAL PROJECT**  
Regional Map

GLENN LUKOS ASSOCIATES



Exhibit 1

Adapted from USGS El Toro, CA quadrangle



# ENCANTO RESIDENTIAL PROJECT

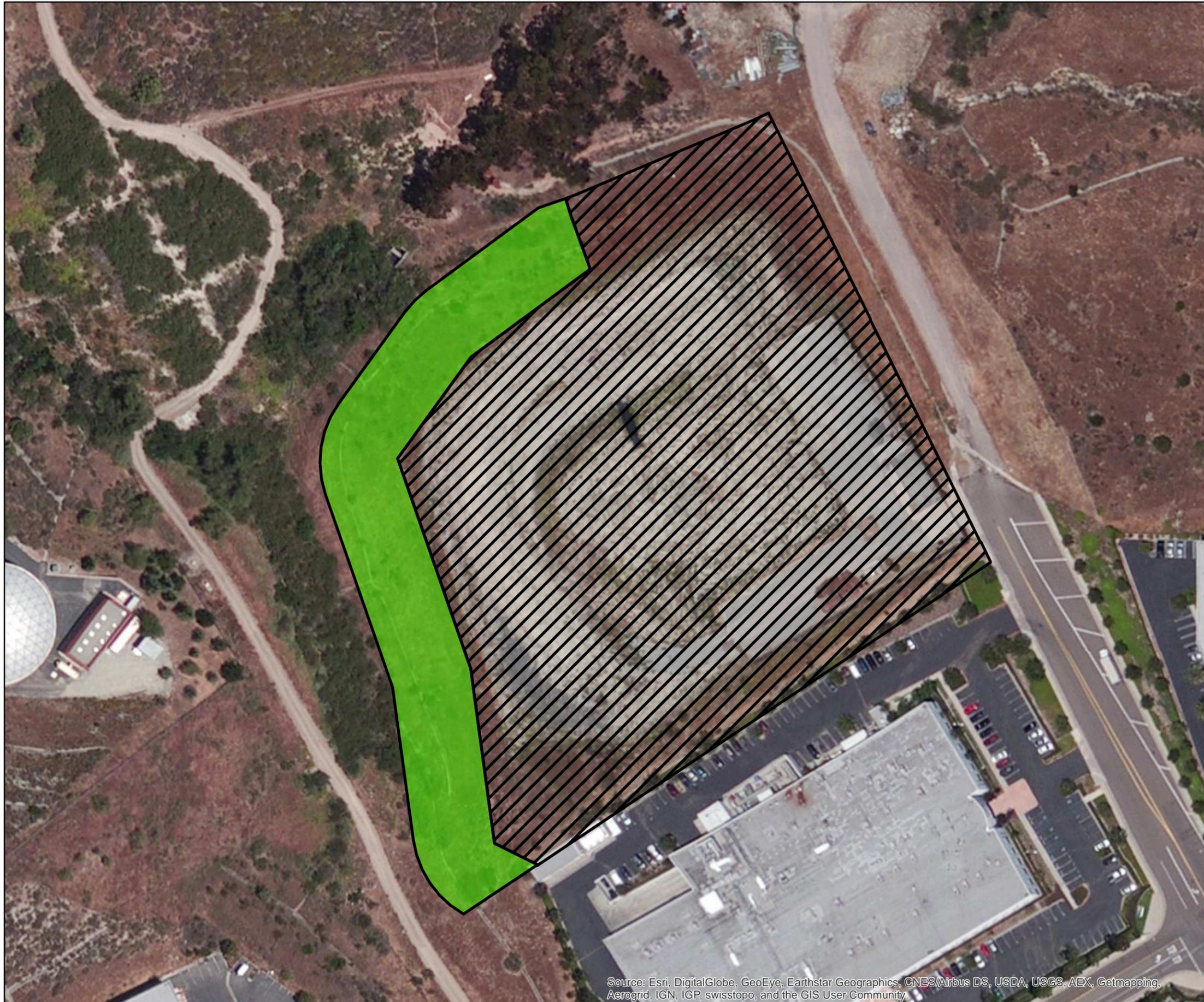
Vicinity Map

GLENN LUKOS ASSOCIATES



Exhibit 2

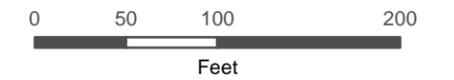
Copyright © 2013 National Geographic Society, i-cubed



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

## Legend

-  Development Area
-  Project Boundary
-  Fuel Modification



**ENCANTO RESIDENTIAL PROJECT**

Site Map

GLENN LUKOS ASSOCIATES



Exhibit 3

**SITE DATA**

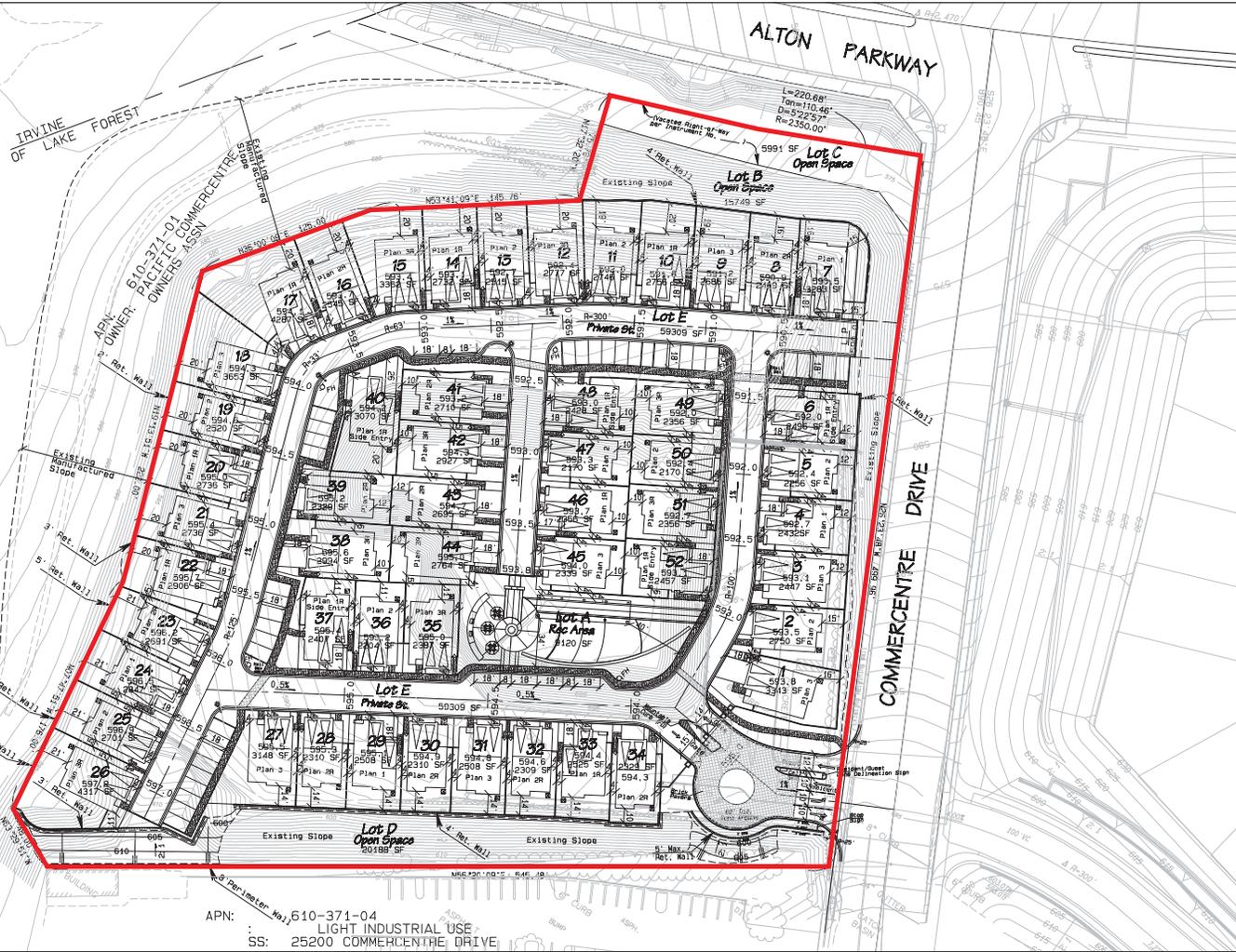
GROSS ACREAGE = 5.75 Ac.  
 NET ACREAGE = 5.75 Ac.  
 NUMBER OF UNITS = 52  
 GROSS DENSITY = 9.0 DU/AC.

TOTAL LETTERED LOT AREA = 110,357 SF  
 TOTAL NUMBERED LOT AREA = 140,346 SF  
 TOTAL LOT AREA = 250,703 SF (5.75 Ac.)

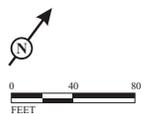
**ARCHITECTURAL DATA**

PLAN	SF	NO. OF UNITS	% OF TOTAL
1 2 Story	1938 SF	16	30.8%
2 3 Story	2125 SF	19	36.5%
3 2 Story*	21384 SF	17	32.7%
		52	100.0%

\* 3-STORY OPTION (364 SF ADD'L SF)



LSA



**LEGEND**

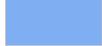
Project Site

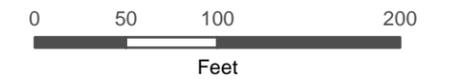
**Exhibit 4**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

## Legend

-  Project Boundary
-  Disturbed/Developed



## ENCANTO RESIDENTIAL PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES



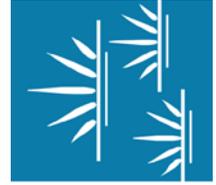
Exhibit 5



Photograph 1: View of the asphalt-covered parking lot on the northeast and southeast portion of site, with elevated rough-graded pad in the center.



Photograph 2: View looking north at the rough-graded and maintained site. Slope on right of photo is the manufactured slope leading down to vegetated corridor offsite.



GLENN LUKOS ASSOCIATES

Exhibit 6

ENCANTO RESIDENTIAL PROJECT

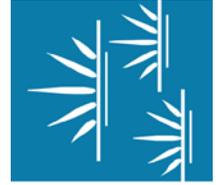
Site Photographs – February 20, 2015



Photograph 3: Looking north at the rough-graded and maintained site on the right, with the offsite vegetated corridor shown on left side of photo.



Photograph 4: Looking northwest at adjacent offsite vegetation northwest of the Project site, with Alton Parkway in the background.

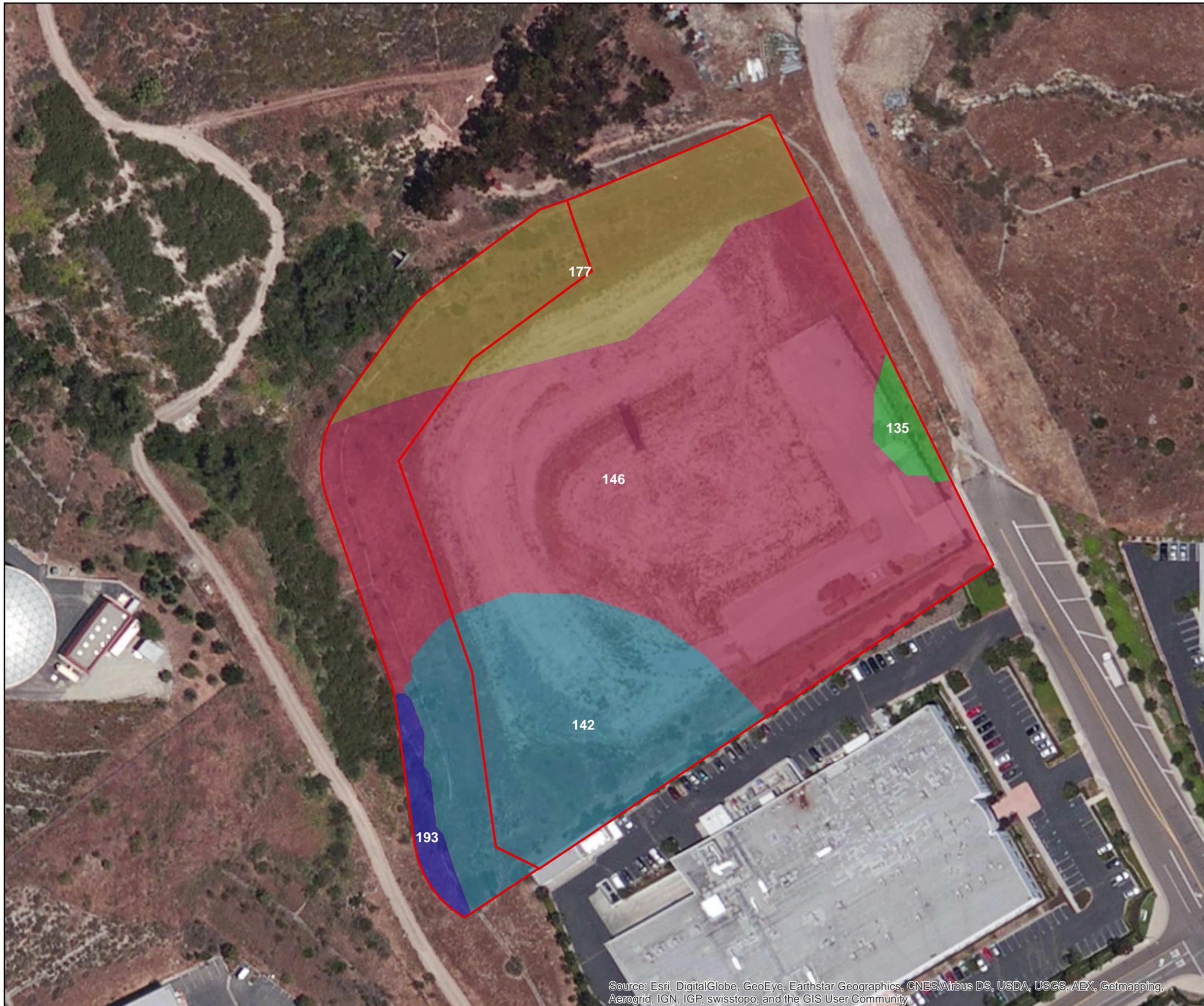


GLENN LUKOS ASSOCIATES

Exhibit 6

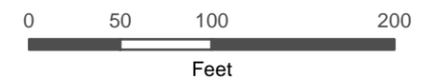
ENCANTO RESIDENTIAL PROJECT

Site Photographs – February 20, 2015



**Legend**

- Project Boundary
- 135 - CAPISTRANO SANDY LOAM, 2 TO 9 PERCENT SLOPES
- 142 - CIENEBA SANDY LOAM, 30 TO 75 PERCENT SLOPES, ERODED
- 146 - CORRALITOS LOAMY SAND
- 177 - MYFORD SANDY LOAM, 9 TO 30 PERCENT SLOPES, ERODED
- 193 - SAN ANDREAS SANDY LOAM, 15 TO 30 PERCENT SLOPES



**ENCANTO RESIDENTIAL PROJECT**

Soils Map

GLENN LUKOS ASSOCIATES



Exhibit 7

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

# APPENDIX A

## FLORAL COMPENDIUM

The floral compendium lists all species identified during floristic level/focused plant surveys conducted for the Project site. Taxonomy typically follows the Angiosperm Phylogeny Group (APG), which in some cases differs from The Jepson Manual (1993). Common plant names are taken from Hickman (1993), Munz (1974), and Roberts et al (2004) and Roberts (2008). An asterisk (\*) denotes a non-native species.

### SCIENTIFIC NAME

### COMMON NAME

## MAGNOLIOPHYTA

## FLOWERING PLANTS

### MONOCOTYLEDONS

### MONOCOTS

#### POACEAE

- \* *Avena fatua*
- \* *Cynodon dactylon*

#### Grass Family

- common wild oat
- Bermuda grass

### EUDICOTYLEDONS

### EUDICOTS

#### AMARANTHACEAE

- \* *Salsola tragus*

#### Amaranth Family

- Russian-thistle

#### ANACARDIACEAE

- \* *Schinus molle*

#### Sumac Family

- Peruvian pepper tree

#### ASTERACEAE

- Artemisia californica*
- Baccharis pilularis*
- Baccharis salicifolia*
- \* *Picris echioides*

#### Sunflower Family

- California sagebrush
- coyote bush
- mulefat
- bristly ox-tongue

#### BRASSICACEAE

- \* *Brassica nigra*

#### Mustard Family

- black mustard

#### EUPHORBIACEAE

- \* *Ricinis communis*

#### Spurge Family

- castor bean

**FABACEAE**

*Lupinus bicolor*

**GERANIACEAE**

\* *Erodium cicutarium*

**GROSSULARIACEAE**

*Ribes speciosum*

**SOLANACEAE**

\* *Nicotiana glauca*

**URTICACEAE**

*Urtica dioica* subsp. *holosericea*

**Legume Family**

miniature lupine

**Geranium Family**

red-stemmed filaree

**Gooseberry Family**

fuchsia-flowered gooseberry

**Nightshade Family**

tree tobacco

**Nettle Family**

hoary nettle

# APPENDIX B

## FAUNAL COMPENDIUM

### REPTILIA

#### PHRYNOSOMATIDAE

*Uta stansburiana*

### AVES

#### EMBERIZIDAE

*Melospiza melodia*

*Melospiza crissalis*

#### FRINGILLIDAE

*Haemorhous mexicanus*

*Spinus psaltria*

#### MIMIDAE

*Mimus polyglottos*

#### PARULIDAE

*Setophaga coronata*

#### TROCHILIDAE

*Calypte anna*

### REPTILES

#### Phrynosomatid Lizards

common side-blotched lizard

### BIRDS

#### Emberizids

song sparrow

California towhee

#### Fringilline And Cardueline Finches and Allies

house finch

lesser goldfinch

#### Mockingbirds And Thrashers

northern mockingbird

#### Wood Warblers And Relatives

yellow-rumped warbler

#### Hummingbirds

Anna's hummingbird

Taxonomy and nomenclature are based on the following.

Amphibians and reptiles: Crother, B.I. et al. (2000. Scientific and standard English names of amphibians and reptiles of North America north of Mexico, with comments regarding confidence in our understanding. Herpetological Circular 29; and 2003 update.) for species taxonomy and nomenclature; Stebbins, R.C. (2003. A Field Guide to Western Reptiles and Amphibians, third edition, Houghton Mifflin, Boston.) for sequence and higher order taxonomy.

Birds: American Ornithologists' Union (1998. The A.O.U. Checklist of North American Birds, seventh edition. American Ornithologists' Union, Washington D.C.; and 2000, 2002, 2003, and 2004 supplements.).

The faunal compendium lists species that were either observed within or adjacent to the Project site (denoted by a '\*'), or that have some potential to occur within or adjacent to the Study Area (denoted by a '+'). Taxonomy and common names are taken from the California Wildlife Habitat Relationships System (CDFG 2003); AOU (1998) and CDFG (1990) for birds; Stebbins (1985), Collins (1990), Jones et al. (1992), and CDFG (1990) for reptiles and amphibians; and CDFG (1990) for mammals.