

DRAFT

BIOLOGICAL TECHNICAL REPORT

FOR

THE LOWER CURTIS PARK EXPANSION
MISSION VIEJO, CALIFORNIA

JULY 2020

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1.0 INTRODUCTION

Biologists from Glenn Lukos Associates, Inc. (GLA) conducted biological surveys and a jurisdictional delineation on the Lower Curtis Park expansion site to identify the presence of special-status species or habitats capable of supporting special-status species on the site or adjacent to the site in areas that could be affected by the project. In addition to the field surveys conducted by GLA, the results of recent biological surveys conducted by Gonzales Environmental Consulting, LLC (GEC) (2019) are incorporated.

This report includes an analysis for the potential or identified occurrence of biological resources associated with the above-mentioned property as it pertains to special-status species and habitats. Potential impacts (direct and/or indirect) to special-status species and habitats are addressed below for purposes of review under the California Environmental Quality Act (CEQA). In addition, impacts to species listed as threatened or endangered under the federal Endangered Species Act (ESA) or their designated Critical Habitat are regulated by the U.S. Fish and Wildlife Service (USFWS) and species listed as threatened or endangered by the State of California are regulated by the California Department of Fish and Wildlife (CDFW) pursuant to the State ESA and are addressed below. Wildlife that are assigned other designations by CDFW (i.e., species of special concern, fully-protected species, etc.) and plants given special status by the California Native Plant Society (CNPS) as provided by the California Rare Plant Rank (CRPR) are not granted additional protection, except that impacts to these species generally require evaluation pursuant to CEQA. Similarly, vegetation alliances as defined in accordance with the Manual of California Vegetation, Second Edition, with a State Rarity Ranking of S1, S2 or S3 are considered as potentially sensitive and need to be evaluated under CEQA.

1.1 Location of Project Site

The Lower Curtis Park Expansion site (Project site) comprises one parcel (APN 786-601-01) covering approximately 40.26 acres and is in the City of Mission Viejo (Exhibit 1). The Project Site is located to the east of Olympiad Road, Felipe Road, and Robert A. Curtis Park, north of Water Tank Road, west of Trabuco Creek Road, and south of Escatron Street (Exhibit 2). No blue-line drainages occur on the site, as depicted on the U.S. Geological Survey (USGS) topographic map San Juan Capistrano, California. The study area boundary for the proposed project is depicted on the project Vegetation Map, Exhibit 3. The approximate center of the site is located at longitude -117.631663°W and latitude 33.631663°N.

1.2 Project Description

The proposed project will provide for the future expansion of Curtis Park by creating a rough-graded super-pad below the existing park site to accommodate additional sports fields and/or general use areas. It will include a rough-graded access road, drainage improvements and temporary landscaping to protect slope areas and prevent erosion.

2.0 METHODOLOGY

Initial surveys of the Project site were conducted by Gonzales Environmental Consulting, LLC (GEC), on September 8, September 15, September 22, and October 6, 2019. Additional surveys of the Project were performed by GLA on January 27, February 19, and June 18, 2020.

The focus of the focus biological surveys was determined through review of the previous data collected for the site plus review of the CNDDDB [CDFW 2020], CNPS 8th edition online inventory (CNPS 2020), Natural Resource Conservation Service soil data (NRCS 2020), other pertinent literature, and knowledge of the region, specifically the areas of Mission Viejo and Trabuco Creek. Site-specific general surveys within the Project site were conducted on foot in the proposed development areas as well as areas to be avoided for each target plant or animal species identified below. Table 2.0 provides a summary list of survey dates, survey types, and personnel associated with the previous and updated surveys.

Table 2.0: Summary of Biological Surveys for the Project Site		
Survey Date	Survey Type	Surveying Biologist
2019 Surveys		
September 8	General Habitat Assessment/Focused Plant Survey	GEC Biologist
September 15	General Habitat Assessment/Focused Plant Survey	GEC Biologist
September 22	General Habitat Assessment/Focused Plant Survey	GEC Biologist
October 6	General Habitat Assessment/Focused Plant Survey	GEC Biologist
2020 Surveys		
January 27	General Surveys, Vegetation Mapping	Tony Bomkamp Jillian Stephens
February 19	General Surveys, Vegetation Mapping, Jurisdictional Delineation	Tony Bomkamp Brittany Gale
June 18	General Surveys, Vegetation Mapping, Jurisdictional Delineation	Tony Bomkamp David Smith

2.1 Summary of Surveys

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:

- California Native Plant Society, Rare Plant Program. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) (CNPS 2020); and

- CNDDB for the USGS 7.5' quadrangle(s): San Juan Capistrano and surrounding quadrangles (CDFW 2020).

2.2 Soil Resources

The Natural Resources Conservation Service (NRCS) (USDA 1978) has mapped the following soil types as occurring on the Project Site and depicted on Exhibit 4.

Bosanko Clay, 9 to 15 Percent Slopes

The Bosanko series consists of well drained soils on foothills. These soils formed in material weathered from calcareous shale, sandstone, or weakly consolidated sediments. Slopes range 9-15%. Elevation ranges from 200 - 2,500 feet. The vegetation is annual grasses, mustard, and other forbs.

Bosanko Clay, 15 to 30 Percent Slopes

The Bosanko series consists of well drained soils on foothills. These soils formed in material weathered from calcareous shale, sandstone, or weakly consolidated sediments. Slopes range 15-30%. Elevation ranges from 200- 2,500 feet. The vegetation is annual grasses, mustard, and other forbs.

Bosanko-Balcom complex, 15 to 30 percent slopes

The Bosanko-Balcom complex is about 45% Bosanko clay and about 40% Balcom clay loam. The Bosanko clay is on north-and east-facing side slopes and in swales. The Balcom clay loam is on hill ridgetops and on south-and west-facing side slopes. These soils formed in material weathered from calcareous shale, sandstone, or weakly consolidated sediments. Slopes range 15-30%. Elevation ranges from 200- 2,500 feet. The vegetation is annual grasses, mustard, and other forbs.

Botella clay loam, 9 to 15 percent slopes

The Botella series Consists of well drained soils on alluvial fans. These soils formed in sedimentary alluvium. Slopes are 2-15%. Elevation ranges from 25-1,500 feet. The vegetation is mainly annual grasses and forbs and some oak trees and brush.

Calleguas clay loam, 50 to 75 percent slopes, eroded

This series consists of well drained soils on uplands. These soils formed in material weathered from lime coated shale or lime coated sandstone, or both. Slopes are 50-75%. Elevation ranges from 200-2,500 feet. The vegetation is annual grasses and forbs, mostly mustard and brush.

Cieneba sandy loam, 15 to 30 percent slopes

This series consists of somewhat excessively drained soils. These soils formed in material weathered from granitic rocks of the Santa Ana Mountains and from the sandstone of the coastal foothills. Slopes are 9-75%.

Corralitos loamy sand

This series consists of somewhat excessively drained soils on fans in long, narrow valleys. These soils formed in mixed coarse textured alluvium. Slopes are 0-5%. Elevation ranges from 50-

1,500 feet. The vegetation is mainly annual grasses and forbs and some trees and brush generally near stream channels.

Cropley clay, 2 to 9 percent slopes

This series consists of well drained soils on fans and valley fill. These soils formed in fine textured alluvium derived from sedimentary rocks. Slopes are 2-9%. Elevation ranges from 50-1,000 feet. The vegetation is annual grasses and forbs.

Myford sandy loam, thick surface, 2 to 9 percent slopes

This series consists of moderately well drained soils on marine terraces. These soils formed in sandy sediments. Slopes are 0-30%. Elevation ranges from 50-1,500 feet. The vegetation generally is annual grasses and forbs and scattered low growing brush.

Soboba cobbly loamy sand, 0 to 15 percent slopes

This series consists of excessively drained soils on flood plains and alluvial fans. These soils formed in mixed alluvium. Slopes are 0- 15%. Elevation ranges from 50-2,500 feet. The vegetation is annual grasses, forbs, cactus, brush, and some trees.

2.3 Botanical Resources

A site specific survey program was designed to accurately document the botanical resources for the Project Site, which consisted of (1) a literature review; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur on site; (3) general field reconnaissance surveys; (4) vegetation mapping in accordance with the alliances as described in the Manual of California Vegetation, Second Edition (Sawyer et. Al, 2009); (5) focused surveys for special-status plants; and (6) preparation of a vegetation map, including the location of any sensitive vegetation communities found on site. Scientific nomenclature and common names for plant species referred to in this report follow Hickman (1993) and Roberts (1998).

Prior to conducting fieldwork, a review of the CNPS inventory and the CNDDB was conducted for the USGS 7.5' San Juan Capistrano and surrounding quadrangles to evaluate what special-status species might have the potential to occur on site. Site reconnaissance was conducted in such a manner as to allow inspection of all areas of potential habitat on the Project Site by direct observation. Observations of all plants were recorded in field notes during each visit. A complete list of plant species observed within the Project Site is provided in Appendix A.

General Surveys

During general surveys on the Project Site, all plants observed were recorded in field notes.

Focused Surveys

General botanical surveys and vegetation mapping were initially conducted in September and October 2019 by GEC. Focused surveys were concentrated within the footprint of the proposed project site. Updated surveys were conducted on February 19 and June 18, 2020. Based on the

literature search and use of reference populations, surveys were conducted at appropriate times based on precipitation and flowering periods.¹ An aerial photograph, soils and vegetation maps, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Project site. Surveys were conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field surveys were identified and recorded following the above-referenced guidelines adopted by CNPS (2001) and CDFW by Nelson (1984). A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al (2012), Munz (1974), and Allen and Roberts (2013).

Reference Sites

As detailed in Table 4.2 below, a variety of plant species were initially considered for potential occurrence. Suitable soils and/or habitat characteristics were determined to be absent for many of the species initially considered (e.g., Coulter's salt bush due to a lack of coastal sage scrub, mud nama due to lack of seasonal ponds, and Laguna Beach dudleya due lack of suitable rock outcrops and because the site is beyond the know range within Laguna Beach). For such species, reference sites are not necessary to the lack of potential to occur. Other species are large conspicuous/easily detected shrubs such as summer holly and Nuttall's scrub oak. Similarly, reference sites for such conspicuous species are not needed. Reference populations for species that have at least limited potential to occur, such as many-stemmed dudleya, paniculate tarplant, and Catalina Mariposa lily are well-known to GLA Biologists on Rancho Mission Viejo in south Orange County and used for this study.

Vegetation Mapping

Vegetation alliances within the Project site were mapped in accordance with 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 were not consistent with the "membership rules" set forth in the MCVII. Such modifications to the vegetation alliances were designated based on the dominant plant species. Vegetation alliances were mapped in the field directly onto a 200-scale (1" = 200') aerial photograph. A vegetation map is included as Exhibit 3.

2.4 Wildlife Resources

A site specific survey program was designed to accurately document the wildlife resources for the Project site, which consisted of (1) a literature review; (2) preparation of a list of target special-status animal species that could occur on site; (3) general field reconnaissance surveys; (4) focused surveys for special-status animals; and (5) preparation of maps with the location of any special-status animal species found on site.

¹ GLA notes that due to the unseasonably cool spring, blooming periods for many species were delayed during the 2020 season, making use of reference populations a necessary component of the survey program.

Prior to conducting fieldwork, a review of the CNDDDB was conducted for the USGS 7.5' San Juan Capistrano and surrounding quadrangles to evaluate what special-status species might have the potential to occur on site. Wildlife species were evaluated and detected during field surveys by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the 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 each visit. A complete list of wildlife species observed or that are expected to occur within the Project Site is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow Collins (1990) for amphibians and reptiles, Jones, et al. (1992) for mammals, and AOU Checklist for birds (1998). The methodology (including any applicable USFWS survey protocols) utilized to conduct the focused surveys or the habitat assessments of each listed or special-status animal are discussed below.

2.4.1 General Surveys

Birds

During general surveys of the Project Site, birds were identified opportunistically. Birds were detected by both direct observation and vocalizations and were recorded in field notes.

Mammals

During general surveys of the Project Site, mammals were identified incidentally. Mammals were detected both by direct observation and the presence of diagnostic sign (i.e. tracks, burrows, scat, etc.).

Reptiles and Amphibians

During general surveys of the Project Site, reptiles and amphibians were identified. Habitats were examined for diagnostic reptile signs, 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.

2.4.2 Habitat Assessment for Coastal California Gnatcatcher

A habitat assessment for coastal California gnatcatcher (*Polioptila californica*, CAGN) was performed for the entire site. Suitable habitat for CAGN consists of coastal sage scrub communities dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*) with flat to moderately sloping topography. Based on the vegetation composition and the topography, it was determined that the site does not exhibit the potential for supporting the CAGN.

2.5 Special-Status Habitats

Prior to conducting fieldwork, a review of the CNDDDB was conducted for the USGS 7.5' San Juan Capistrano and surrounding quadrangles to evaluate what special status habitats, if any, are mapped for the subject property.

3.0 REGULATORY SETTING

The Lower Curtis Park Expansion 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

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 FESA, CESA does not list invertebrate species.

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.

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.

In addition to the prohibitions on the take of listed species, the Service is also required to designate areas of “Critical Habitat” for species listed under the FESA. The FESA defines critical habitat as “the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and specific areas outside the geographical area occupied by the species at the time it is listed that are determined by the Secretary to be essential for the conservation of the species.” A designation does not set up a preserve or refuge and only applies to situations where Federal funding, permits, or projects are involved.

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 California Endangered Species Act (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.

Orange County Southern Subregion Habitat Conservation Plan

A portion of site owned by the County of Orange is within Subarea 4 of the Orange County Southern Subregion Habitat Conservation Plan (SSHCP). The City of Mission Viejo is not a participating landowner to the SSHCP and City property is not within the boundaries of the SSHCP. However, non-participating landowners have the option of addressing unavoidable impacts/take within reserves by either providing acceptable mitigation through separate permits or authorizations under FESA.

3.2 California Environmental Quality Act

CEQA Guidelines Section 15380

The California Environmental Quality Act (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 below sets 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 Lists 1A, 1B, or 2 of the California Native Plant Society (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 Lists 3 or 4. CDFW also considers vegetation alliances with a Rarity Ranking of S1, S2, or S3 to be "special-status" and subject to review under CEQA.

Non-Listed Special-Status Plants and Animals 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. However, some USFWS field offices have issued memoranda stating that former C2 species are to be considered federal Species of Concern (FSC). 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 Species of Special Concern (CSC) are species 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
- CSC California Special Concern Species

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 (2020) 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. CNPS Ranks 1, 2, 3, & 4, and Threat Code Extensions	
CNPS Rank	Comments
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 Distribution (A Watch List)	Species that are currently thought to be limited in distribution or range 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.
Extension	Comments
.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.

3.3 Jurisdictional Waters

Army Corps of Engineers

On June 22, 2020, the *Navigable Waters Protection Rule* (NWPR) (Federal Register, 2020) became effective and superseded the previous definition of waters of the United States in all states except for Colorado. District courts will hear the merits of the challenges over the next few months; however, at the time of the writing of this report, the definition of waters of the United States are as follows:

(a) *Jurisdictional waters.* For purposes of the Clean Water Act, 33 U.S.C. 1251 *et seq.* and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term “waters of the United States” means:

- (1) *The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;*
- (2) *Tributaries;*
- (3) *Lakes and ponds, and impoundments of jurisdictional waters; and*
- (4) *Adjacent wetlands.*
- (b) *Non-jurisdictional waters. The following are not “waters of the United States”:*
 - (1) *Waters or water features that are not identified in paragraph (a)(1), (2),*
 - (3), *or (4) of this section;*
 - (2) *Groundwater, including groundwater drained through subsurface drainage systems;*
 - (3) *Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;*
 - (4) *Diffuse stormwater run-off and directional sheet flow over upland;*
 - (5) *Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;*
 - (6) *Prior converted cropland;*
 - (7) *Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;*
 - (8) *Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;*
 - (9) *Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;*
 - (10) *Stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;*
 - (11) *Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and*
 - (12) *Waste treatment systems.*

Should the *Navigable Waters Protection Rule* be stayed or otherwise blocked due to pending litigation, the definition for Waters of U.S. would likely revert to the prior definition provided 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. 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.

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.

Under either definition, in the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

1. Wetland Definition Pursuant to Section 404 of the Clean Water Act

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 the Wetland Manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the Wetland 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 Wetland Manual and Arid West Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States² and waters of the state. Waters of the United States are defined above in Section II.A and waters of the state are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code 13050[e]).

Section 401 of the CWA requires certification for any federal permit or license authorizing impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as Section 404 of the CWA and Section 10 of the Safe Rivers and Harbors Act, to ensure that the impacts do not violate state water quality standards. When a project could impact waters outside of federal jurisdiction, the Regional Board has the authority under the Porter-Cologne Water Quality Control Act to issue Waste Discharge Requirements (WDRs) to ensure that impacts do not violate state water quality standards. Clean Water Act Section 401 Water Quality Certifications, WDRs, and waivers of WDRs are also referred to as orders or permits.

State Wetland Definition

The Water Boards define an area as wetland³ as follows: *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area’s vegetation is dominated by hydrophytes or the area lacks vegetation.*

² Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code of Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be “waters of the U.S.” in an approved jurisdictional determination; “waters of the U.S.” identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of “waters of the U.S.” or any current or historic federal regulation defining “waters of the U.S.” under the federal Clean Water Act.

³ State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. [For Inclusion in the Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California].

The following wetlands are waters of the state:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;⁴ and*
3. *Artificial wetlands⁵ that meet any of the following criteria:*
 - a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;*
 - b. Specifically identified in a water quality control plan as a wetland or other water of the state;*
 - c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or*
 - d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):*
 - i. Industrial or municipal wastewater treatment or disposal,*
 - ii. Settling of sediment,*
 - iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,*
 - iv. Treatment of surface waters,*
 - v. Agricultural crop irrigation or stock watering,*
 - vi. Fire suppression,*
 - vii. Industrial processing or cooling,*
 - viii. Active surface mining – even if the site is managed for interim wetlands functions and values,*
 - ix. Log storage,*
 - x. Treatment, storage, or distribution of recycled water, or*
 - xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or*
 - xii. Fields flooded for rice growing.*

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

⁴ “Created by modification of a surface water of the state” means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically, but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.

⁵ Artificial wetlands are wetlands that result from human activity.

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 also defines a stream as "a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators."

It is important to note that the Fish and Game Code defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

4.0 RESULTS

4.1 Reconnaissance Surveys

As previously stated, the Project site covers approximately 40.26 acres. The Project site is in the City of Mission Viejo (Exhibit 1) to the east of Olympiad Road, Felipe Road, and Robert A. Curtis Park, north of Water Tank Road, west of Trabuco Creek Road, and south of Escatron Street (Exhibit 2). Site topography ranges from gently to steeply sloping, with elevations ranging from approximately 619 feet to 782 feet above mean sea level (MSL). Vegetation communities found on site consist of mostly non-native cover types such as mustard fields, non-native grasslands, artichoke thistle fields and ornamental vegetation, with limited areas of coyote brush scrub, coast goldenbush scrub and purple needlegrass grassland. The site also includes a few scattered coast live oaks (*Quercus agrifolia*). Surrounding land uses include undeveloped land to the south, east, and north, and residential development to the west.

4.2 Vegetation Mapping and Surveys

GLA biologists conducted vegetation mapping on June 18, 2020 the vegetation mapping in accordance with the MCV II. Table 4-1 summarizes the vegetation information details below. A vegetation map is provided as Exhibit 3.

Table 4-1. Summary of Vegetation Alliances and Land Cover on Site			
Vegetation Type	City Land	County Land	Total (acres)
<i>Anemopsis californica</i> Herbaceous Alliance – Yerba mansa meadows (MCV II S2?)	0.05	0.0	0.05
<i>Baccharis pilularis</i> Shrubland Alliance – Coyote brush scrub (MCV II S5)	0.14	0.39	0.53
<i>Baccharis salicifolia</i> Shrubland Alliance – Mulefat thickets (MCV II S4)	0.0	0.29	0.29
<i>Brassica (nigra)</i> and Other Mustards Semi-Natural Herbaceous Stands – Upland mustards	3.07	11.94	15.01
<i>Cortaderia (jubata, selloana)</i> Semi-Natural Herbaceous Stands – Pampas grass patches	0.01	0.03	0.04
<i>Cynara cardunculus</i> Semi-Natural Herbaceous Stands – artichoke thistle stands	20.36	0.0	20.36
Disturbed	1.43	0.0	1.43
<i>Isocoma menziesii</i> Shrubland Alliance – Menzie's golden bush scrub (MCV II S4?)	0.49	0.0	0.49
Mixed Scrub/Disturbed	0.48	0.0	0.48
<i>Nasella pulchra</i> Herbaceous Alliance – Purple needle grass grassland (MCV II S3?)	0.06	0.22	0.28
Ornamental	0.95	0.0	0.95
<i>Quercus agrifolia</i> Woodland Alliance – Coast live oak woodland (MCV II S4)	0.11	0.12	0.23
<i>Rhus integrifolia</i> Shrubland Alliance – Lemonade berry scrub (MCV II S3)	0.0	0.02	0.02
<i>Salix lasiolepis</i> Shrubland Alliance – Arroyo willow thickets (MCV II S4)	0.0	0.04	0.04
<i>Sambucus nigra</i> Shrubland Alliance – Blue elderberry stands (MCV II S3)	0.0	0.02	0.02
<i>Typha (domingensis, latifolia)</i> Herbaceous Alliance – Cattail marshes (MCV II S5)	0.02	0.0	0.02
<i>Washingtonia robusta</i> Semi-Natural Woodland Alliance – Mexican fan palm	0.02	0.0	0.02
TOTAL	20.70	13.07	40.27

***Anemopsis californica* HERBACEOUS ALLIANCE – YERBA MANSA MEADOWS**

Yerba mansa (*Anemopsis californica*) scrub accounts for approximately 0.05 acre and is restricted to Drainage A. In the MCV II, the membership rules require that yerba mansa covers greater than 30 percent of the herbaceous layer. Within Drainage A, yerba mansa cover ranges from 70- to 100-percent. Other co-occurring species include stinging nettle and Spanish false fleabane. This vegetation cover is part of the *Anemopsis californica* Herbaceous Alliance which has a G3 S2? rarity ranking. This rarity ranking is defined as globally vulnerable and imperiled within California.

***Baccharis pilularis* SHRUBLAND ALLIANCE – COYOTE BRUSH SCRUB**

Coyote brush (*Baccharis pilularis*) scrub accounts for approximately 0.53 acre throughout the entire Site. In these areas, coyote brush covers over 50 percent of the shrub layer; however, other occurring species include pampas grass and summer mustard. This vegetation cover is part of the *Baccharis pilularis* Shrubland Alliance which has a G5 S5 rarity ranking. This rarity ranking is defined as secure in both its global and California range.

***Baccharis salicifolia* SHRUBLAND ALLIANCE – MULEFAT THICKETS**

Primarily in the lower portion of Drainage A, approximately 0.29 acre consists of mulefat (*Baccharis salicifolia*) thickets. According to the MCV II, these areas fit the *Baccharis salicifolia* Shrubland Alliance which has a rarity ranking of G5 S4 which is defined as secure within and outside of California. Other co-occurring species include coyote brush and summer mustard.

***Brassica (nigra)* and Other Mustards SEMI-NATURAL HERBACEOUS STANDS – UPLAND MUSTARDS**

Disturbed areas dominated by invasive, non-native upland mustard species (*Hirschfeldia incana* and *Brassica nigra*) account for approximately 15.01 acres throughout the Site. These vegetation alliances belong to the *Brassica (nigra)* and Other Mustards Semi-Natural Herbaceous Stands classification in the MCV II.

***Cortaderia (jubata, selloana)* SEMI-NATURAL HERBACEOUS STANDS– PAMPAS GRASS PATCHES**

Approximately 0.04 acre in Drainage A consists of a patch of pampas grass (*Cortaderia selloana*). This highly invasive vegetation cover belongs the *Cortaderia (jubata, selloana)* Semi-Natural Herbaceous Stands – Pampas grass patches classification in the MCV II.

***Cynara cardunculus* SEMI-NATURAL HERBACEOUS STANDS – ARTICHOKE THISTLE STANDS**

Approximately 20.36 acres are dominated by artichoke thistle, a non-native, invasive species. Other species occurring in these areas are upland mustards, yellow star-thistle, and non-native, annual grasses including slender wild oats (*Avena barbata*), Italian ryegrass (*Festuca perennis*), soft chess (*Bromus hordeaceus*), and ripgut (*Bromus diandrus*). This vegetation cover type does not have a close analog in the MCV II.

***Isocoma menziesii* SHRUBLAND ALLIANCE – MENZIE’S GOLDEN BUSH SCRUB**

Approximately 0.49 acre in the central-northern portion of the Study Site, consists of a patch of golden bush (*Isocoma menziesii*) scrub. This native vegetation cover is part of the *Isocoma menziesii* Shrubland Alliance – Menzie’s golden bush scrub, which has a rarity ranking of G4?S4? which is defined as secure throughout its range. Other species include summer mustard, wild oats, and Italian ryegrass.

***Nasella pulchra* HERBACEOUS ALLIANCE – PURPLE NEEDLE GRASS GRASSLAND**

Approximately 0.28 acre immediately south Drainage A consists of areas where purple needle grass exceeds 10-percent cover in the herb layer. Other species in this layer are primarily upland mustard species or non-native grasses and a few native herbs such as golden stars (*Bloomeris*

crocea). This vegetation cover meets the membership rules for the *Nasella pulchra* Herbaceous Alliance – Purple needle grass grassland, which has a rarity ranking of G4 S3? which is defined as globally secure, but vulnerable throughout its range at the state level.

***Quercus agrifolia* WOODLAND ALLIANCE – COAST LIVE OAK WOODLAND**

Approximately 0.23 acre within Drainage A consists of areas where coast live oak exceeds 50% relative cover in the tree canopy. Other species in these areas include mulefat, coyote brush, stinging nettle, and cattail. This native vegetation cover is part of the *Quercus agrifolia* Woodland Alliance – Coast live oak woodland, which has a rarity ranking of G5 S4 which is defined as secure within California.

***Rhus integrifolia* SHRUBLAND ALLIANCE – LEMONADE BERRY SCRUB**

Approximately 0.02 acre along the easternmost reach of Drainage A consists of areas where lemonade berry exceeds 50-percent relative cover in the shrub layer. This native vegetation cover is part of the *Rhus integrifolia* Shrubland Alliance – Lemonade berry scrub, which has a rarity ranking of G3 S3 which is defined as vulnerable throughout its range.

***Salix lasiolepis* SHRUBLAND ALLIANCE – ARROYO WILLOW THICKETS**

Approximately 0.04 acre within Drainage A consists of areas where arroyo willow exceeds 50% relative cover or 20-percent absolute cover in the shrub or tree canopy. Other species in these areas include mulefat, coyote brush, and stinging nettle. This native vegetation cover is part of the *Salix lasiolepis* Shrubland Alliance – Arroyo willow thickets, which has a rarity ranking of G4 S4 which is defined as secure throughout its range.

***Sambucus nigra* SHRUBLAND ALLIANCE – BLUE ELDERBERRY STANDS**

Approximately 0.02 acre in Drainage A consists of areas where blue elderberry exceeds 50% cover in the shrub layer. This native vegetation cover is part of the *Sambucus nigra* Shrubland Alliance – Blue elderberry stands, which has a rarity ranking of G3 S3 which is defined as vulnerable throughout its range.

***Typha (angustifolia, domingensis, latifolia)* HERBACEOUS ALLIANCE – CATTAIL MARSHES**

Approximately 0.02 acre in the western end of Drainage A, consists of a stand of southern cattail (*Typha domingensis*). This native vegetation cover is part of the *Typha (angustifolia, domingensis, latifolia)* Herbaceous Alliance – Cattail marshes, which has a rarity ranking of G5 S5 which is defined as secure throughout its range.

***Washingtonia robusta* SEMI-NATURAL WOODLAND STANDS – MEXICAN FAN PALM**

Mexican fan palms (*Washingtonia robusta*) cover approximately 0.02 acre within Drainage A. This vegetation cover type is non-native and does not have a close analog in the MCV II.

Ornamental

Ornamental vegetation covers 0.95-acre of the Project site, in the areas immediately above Drainage A. These areas are dominated by allepo pine (*Pinus halepensis*) and Peruvian pepper trees (*Schinus molle*).

Disturbed Lands

Disturbed lands account for 1.43 acre near the northern property boundary associated with a staging area used by city faculty. These areas are predominantly bare dirt roads with occasional ornamental trees.

Mixed Scrub/Disturbed Lands

These areas account for approximately 0.48 acre immediately south of Drainage A, comprised of various scrub species such as Menzies goldenbush, California sagebrush, (*Artemisia californica*), coyote brush, a few small coast live oaks, and non-natives including artichoke thistle and summer mustard. These areas also support large percentages of cover by non-native species, such as various exotic grasses and upland mustard species.

4.3 Special-Status Plants

Table 4-2 provides a summary of all plants evaluated for this report based on: 1) plants identified by the 2020 CNDDDB as occurring (either currently or historically) on or in the USGS Dana Point, San Juan Capistrano, and Laguna Beach quadrangles; 2) a review of the 2020 California Native Plant Society (CNPS) inventory, and 3) any other special-status plants that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on site. Following the table, additional discussions are provided for any special-status plants observed on site or for which potentially suitable habitat occurs on the property. A complete compendium of plants observed on the Project site is provided as Appendix A.

Table 4-2. Special-status plants considered for the Lower Curtis Park Expansion.

Species	Status	Habitat	Potential for Occurrence
Allen's pentachaeta <i>Pentachaeta aurea</i> ssp. <i>allenii</i>	Federal: None State: None CNPS: List 1B.1	Openings in coastal sage scrub and valley and foothill grassland. Blooming period Mar-Jun. Elevation range 75-520m.	No suitable habitat on site, not expected to occur.
Aphanisma <i>Aphanisma blitoides</i>	Federal: None State: None CNPS: List 1B.2	Coastal bluff scrub, coastal dunes, coastal dune scrubs. Blooming period Mar-Jun.	No suitable habitat on site, not expected to occur.
Big-leaved crownbeard <i>Verbesina dissita</i>	Federal: FT State: ST CNPS: List 1B.1	Southern maritime chaparral, coastal sage scrub. Blooming period Apr-Jul. Elevation range 45-205m.	No suitable habitat on site, and out of known range. Does not occur.
Blochman's dudleya <i>Dudleya blochmanae</i> ssp. <i>Blochmanae</i>	Federal: None State: CSC CNPS: List 1B.1	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland. Rocky, often clay or serpentinite soils. Blooming period Apr-Jun.	No suitable habitat on site, not expected to occur.
California Box-thorn <i>Lycium californicum</i>	Federal: None State: None CNPS: List 4.2	Coastal bluff scrub, coastal scrub. Blooming period Mar-Aug. Elevation range 5-150m.	No suitable habitat on site, and out of known range. Does not occur.

Species	Status	Habitat	Potential for Occurrence
California satintail <i>Imperata brevifolia</i>	Federal: None State: None CNPS: Rank 2B.1	Mesic soils in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), and riparian scrub.	Potential wetland habitat onsite – not detected during surveys. Does not occur.
Catalina mariposa lily <i>Calochortus catalinae</i>	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	No suitable habitat on site, not expected to occur.
Chaparral nolina <i>Nolina cismontana</i>	Federal: None State: None CNPS: Rank 1B.2	Chaparral, coastal sage scrub. Occurring on sandstone or gabbro substrates.	No suitable habitat on site, not expected to occur.
Chaparral ragwort <i>Senecio aphanactis</i>	Federal: None State: None CNPS: List 2.2	Chaparral, cismontane woodland, coastal sage scrub. Occurs in alkaline soils. Blooming period Jan-Apr.	No suitable habitat on site, not expected to occur.
Cliff malacothrix <i>Malacothrix saxatilis</i> var. <i>saxatilis</i>	Federal: None State: None CNPS: Rank 4.2	Coastal bluff scrub, coastal scrub.	No suitable habitat on site, not expected to occur.
Cliff spurge <i>Euphorbia misera</i>	Federal: None State: None CNPS: List 2.2	Coastal bluff scrub, coastal scrub, mojavean desert scrub. Rocky soils. Blooming period Dec-Aug. Elevation range 10-500m	No suitable habitat on site, not expected to occur.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Federal: None State: None CNPS: List 1B.1	Playas, vernal pools, marshes and swamps (coastal salt). Blooming period Feb-Jun. Elevation range 1-1,220m	No suitable habitat on site, not expected to occur.
Coulter's saltbush <i>Atriplex coulteri</i>	Federal: None State: None CNPS: List 1B.2	Coastal bluff scrub, coastal sage scrub, valley and foothill grassland. Occurring on alkaline or clay soils. Blooming period Mar-Oct. Elevation range 3-460m	Suitable soils onsite but no suitable habitat on site, not expected to occur.
Davidson's saltscale <i>Atriplex serenana</i> var. <i>davidsonii</i>	Federal: None State: None CNPS: List 1B.2	Alkaline soils in coastal sage scrub, coastal bluff scrub. Blooming period Apr-Oct. Elevation range 10-200m	Suitable soils onsite but no suitable habitat on site, not expected to occur.
Decumbent goldenbush <i>Isocoma menziesii</i> var. <i>decumbens</i>	Federal: None State: None CRPR: 1B.2	Utilizes coastal sage scrub habitat intermixed with grassland, and is more partial to clay soils than other closely related varieties.	Suitable soils onsite but no suitable habitat on site, not expected to occur.
Estuary seablite <i>Suaeda esteroa</i>	Federal: None State: None CNPS: List 1B.2	Coastal salt marsh and swamps. Occurs in sandy soils. Blooming period May-Oct. Elevation range 0-5m	No suitable salt marsh habitat. Does not occur.
Gambel's water cress <i>Nasturtium gambelii</i>	Federal: FE State: ST CNPS: Rank 1B.1	Marshes and swamps (freshwater or brackish).	Potential wetland habitat onsite – not detected during surveys. Does not occur.

Species	Status	Habitat	Potential for Occurrence
Hall's monardella <i>Monardella macrantha</i> ssp. <i>hallii</i>	Federal: None State: None CNPS: Rank 1B.3	Occurs on dry slopes and ridges within openings in broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, and valley and foothill grassland.	No suitable habitat on site, does not occur.
Heart-leaved pitcher sage <i>Lepechinia cardiophylla</i>	Federal: None State: None CNPS: Rank 1B.2	Closed-cone coniferous forest, chaparral, and cismontane woodland.	No suitable habitat on site, does not occur.
Intermediate Mariposa lily <i>Calochortus weedii</i> var. <i>intermedius</i>	Federal: None State: None CNPS: List 1B.2	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland. Blooming period May-Jul. Elevation range 105-855m.	No suitable soils or habitat. Does not occur.
Intermediate monardella <i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	Federal: None State: None CNPS: Rank 1B.3	Usually in the understory of chaparral, cismontane woodland, and lower montane coniferous forest (sometimes)	No suitable habitat on site, does not occur.
Laguna beach dudleya <i>Dudleya stolonifera</i>	Federal: FT State: ST CNPS: List 1B.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland; occurring on rocky soils. Blooming period May-Jul. Elevation range 10-260m.	No suitable cliff-face habitat and out of range. Does not occur.
Little mousetail <i>Myosurus minimus</i> ssp. <i>apus</i>	Federal: None State: None CNPS: Rank 3.1	Valley and foothill grassland, vernal pools (alkaline soils).	No suitable vernal pool habitat onsite. Does not occur.
Long-spined spineflower <i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Federal: None State: None CNPS: Rank 1B.2	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Suitable soils but site lacks suitable habitat. Does not occur.
Los Angeles sunflower <i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Federal: None State: None CNPS: Rank 1B	Marshes and swamps (coastal salt and freshwater).	Potential wetland habitat onsite – not detected during surveys. Does not occur.
Many-stemmed dudleya <i>Dudleya multicaulis</i>	Federal: None State: None CNPS: Rank 1B.2	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Suitable soils on site and limited potential habitat in native grassland. Not observed during surveys. Does not occur.
Mesa horkelia <i>Horkelia cuneata</i> ssp. <i>puberula</i>	Federal: None State: None CNPS: List 1B.1	Chaparral, cismontane woodland, and coastal scrub. Occuring on sandy or gravelly soils. Blooming period Feb-Jul (Sept). Elevation range 70-810m.	No suitable soils or habitat. Does no occur.
Mud nama <i>Nama stenocarpum</i>	Federal: None State: None CNPS: List 2.2	Marshes and swamps. Blooming period Jan-Jul. Elevation range 5-500m	No suitable vernal pool habitat onsite. Does not occur.

Species	Status	Habitat	Potential for Occurrence
Nuttall's scrub oak <i>Quercus dumosa</i>	Federal: None State: None CNPS: List 1B.1	Closed-cone coniferous forest, chaparral, and coastal sage scrub. Occurs on sandy, clay loam soils near coast. Blooming period Feb-Apr. Elevation range 15-400m.	No suitable habitat and too far from coast. Does not occur.
Orcutt's pincushion <i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Federal: None State: None CNPS: List 1B.1	Coastal bluff scrub (sandy soils) and coastal dunes. Blooming period Jan-Aug. Elevation range 3-100m.	No suitable soils or habitat. Does not occur.
Palmer's grapplinghook <i>Harpagonella palmeri</i>	Federal: None State: CSC CNPS: List 4.2	Chaparral, coastal scrub, valley and foothill grassland. Clay soils. Blooming period Mar-May. Elevation range 20-955m	Suitable soils but suitable openings in coastal sage scrub lacking. Does not occur.
Paniculate tarplant <i>Deinandra paniculata</i>	Federal: None State: None CNPS: Rank 4.2	Usually in sandy soils in coastal scrub, valley and foothill grassland.	No suitable soils or habitat. Does not occur.
Parish's brittlescale <i>Atriplex parishii</i>	Federal: None State: None CNPS: List 1B.1	Chenopod scrub, playas, vernal pools. Blooming period Jun-Oct. Elevation range 25-1,900m.	No suitable soils or habitat. Does not occur.
Pendleton button-celery <i>Eryngium pendletonense</i>	Federal: None State: None CNPS: Rank 1B.1	In clay and vernal mesic soils in coastal bluff scrub, valley and foothill grassland, and vernal pools.	No suitable vernal pool habitat onsite. Does not occur.
Prostrate vernal pool navarretia <i>Navarretia prostrata</i>	Federal: None State: None CNPS: Rank 1B.1	Coastal sage scrub, valley and foothill grassland (alkaline), vernal pools. Occurring in mesic soils.	No suitable vernal pool habitat onsite. Does not occur.
Robinson's pepper grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	Federal: None State: None CNPS: Rank 4.3	Chaparral, coastal sage scrub, clay soils	Suitable soils but suitable openings in coastal sage scrub lacking. Does not occur.
Salt Spring checkerbloom <i>Sidalcea neomexicana</i>	Federal: None State: None CNPS: Rank 2B.2	Wetland seeps, slope wetland, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	No suitable wetlands on site. Does not occur.
San Bernardino aster <i>Symphyotrichum defoliatum</i>	Federal: None State: None CNPS: Rank 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Wetlands on site not suitable for this species. Does not occur.
San Miguel savory <i>Clinopodium chandleri</i>	Federal: None State: None CNPS: Rank 1B.2	Rocky, gabbroic, or metavolcanic soils in chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland.	No suitable soils or habitat. Does not occur.

Species	Status	Habitat	Potential for Occurrence
Santa Catalina Island desert-thorn <i>Lycium brevipes</i> var. <i>hassei</i>	Federal: None State: None CNPS: Rank 3.1	Coastal bluff scrub, coastal scrub.	No suitable soils or habitat. Does not occur.
Santiago Peak phacelia <i>Phacelia keckii</i>	Federal: None State: None CNPS: Rank 1B.3	Closed-cone coniferous forest, chaparral	No suitable soils or habitat. Does not occur.
Small-flowered morning-glory <i>Convolvulus simulans</i>	Federal: None State: None CNPS: Rank 4.2	Chaparral (openings), coastal sage scrub, valley and foothill grassland. Occurring on clay soils and serpentinite seeps.	Suitable soils but no suitable habitat within openings in coastal sage scrub. Does not occur.
South coast saltscale <i>Atriplex pacifica</i>	Federal: None State: None CNPS: List 1B.2	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas. Blooming period Mar-Oct. Elevation range 0-140m	No suitable soils or habitat. Does not occur.
Southern tarplant <i>Centromadia parryi</i> ssp. <i>australis</i>	Federal: None State: None CNPS: Rank 1B.1	Disturbed habitats, margins of marshes and swamps, vernal mesic valley and foothill grassland, vernal pools.	No suitable soils or habitat. Does not occur.
Sticky dudleya <i>Dudleya viscida</i>	Federal: None State: None CNPS: Rank 1B.2	Coastal bluff scrub, chaparral, coastal sage scrub. Occurring on rocky soils.	No suitable soils or habitat. Does not occur.
Summer holly <i>Comarostaphylos diversifolia</i> ssp. <i>diversifolia</i>	Federal: None State: None CNPS: List 1B.2	Chaparral, cismontane woodland. Blooming period Apr-Jun. Elevation range 30-550m.	No suitable soils or habitat. Does not occur.
Tecate cypress <i>Hesperocyparis forbesii</i>	Federal: None State: None CNPS: Rank 1B.1	Closed-cone coniferous forest, chaparral.	No suitable habitat and out of range. Does not occur
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	Federal: FT State: SE CNPS: List 1B.1	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools. Blooming period Mar-Jun. Elevation range 25-1,219m.	Potential soils and habitat within areas of needlegrass grassland. Not observed during surveys. Does not occur.
Vernal barley <i>Hordeum intercedens</i>	Federal: None State: None CNPS: Rank 3.2	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	Potential soils and habitat within areas of needlegrass grassland. Not observed during surveys. Does not occur.
Western dichondra <i>Dichondra occidentalis</i>	Federal: None State: None CNPS: List 4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	No suitable soils or habitat. Does not occur.
White rabbit-tobacco <i>Pseudognaphalium leucocephalum</i>	Federal: None State: None CNPS: List 2.2	Chaparral, cismontane woodland, coastal scrub, and riparian woodland in sandy and gravelly soils associated with high energy streams. Blooming period (Jul)Aug-Nov(Dec). Elevation range 0-2,100m.	No suitable alluvial scrub habitat on site. Does not occur.

Federal

FE – Federally Endangered
 FT – Federally Threatened
 FC – Federal Candidate

State

SE – State Endangered
 ST – State Threatened

CNPS

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).

Threat Code extension

.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)

4.3.1 Special-Status Plants Observed on the Project Site

No special-status plant species were detected on the site and none are expected to occur.

4.4 Special-Status Animals

Table 4-3 provides a summary of all species evaluated for this report based on: 1) species identified by the June 2020 CNDDDB as occurring (either currently or historically) on or in the USGS San Juan Capistrano and surrounding quadrangles, and 2) any other special-status species that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on site. Following the table, additional discussions are provided for any special-status animals observed on site or for which potentially suitable habitat occurs on the property. A complete compendium of plants observed on the Project site is provided as Appendix A.

Table 4-3. Special-status wildlife evaluated for the Property.

Species Name	Status	Habitat Requirements	Potential for Occurrence
INVERTEBRATES			
Crotch bumble bee <i>Bombus crotchii</i>	Federal: None State: CE (candidate endangered) CDFW: None	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	No suitable host plants on site. Does not occur.
Monarch butterfly (wintering) <i>Danaus plexippus</i>	Federal: None State: None CDFW: None	Roosts in winter in wind-protected tree groves along the California coast from northern Mendocino to Baja California, Mexico.	No suitable habitat. Does not occur.
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	Federal: FE State: None CDFW: None	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	No suitable vernal pool habitat. Does not occur.
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	Federal: FE State: None CDFW: None	Seasonal vernal pools	No suitable vernal pool habitat. Does not occur.

Species Name	Status	Habitat Requirements	Potential for Occurrence
FISH			
Arroyo chub <i>Gila orcutti</i>	Federal: None State: None CDFW: CSC	Slow-moving or backwater sections of warm to cool streams with substrates of sand or mud.	No suitable habitat. Does not occur.
Santa Ana speckled dace <i>Rhinichthys osculus</i> ssp. 3	Federal: None State: None CDFW: CSC	Occurs in the headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temperatures of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	No suitable habitat. Does not occur.
Southern steelhead - southern California DPS <i>Oncorhynchus mykiss irideus</i>	Federal: FE State: None CDFW: None	Clear, swift moving streams with gravel for spawning. Federal listing refers to populations from Santa Maria river south to southern extent of range (San Mateo Creek in San Diego county.)	No suitable habitat. Does not occur.
Tidewater goby <i>Eucyclogobius newberryi</i>	Federal: FE State: None CDFW: CSC	Occurs in shallow lagoons and lower stream reaches along the California coast from Agua Hedionda Lagoon, San Diego Co. to the mouth of the Smith River.	No suitable habitat. Does not occur.
AMPHIBIANS			
Arroyo southwestern toad <i>Bufo microscaphus californicus</i>	Federal: FE State: None CDFW: CSC	Historically along length of drainages; currently in headwaters, sandy washes and arroyos grown to willows, cottonwoods or sycamores.	No suitable habitat. Does not occur.
Coast Range newt <i>Taricha torosa</i>	Federal: None State: None CDFW: CSC	Found in wet forests, oak forests, chaparral, and rolling grasslands. In southern California, drier chaparral, oak woodland, and grasslands are used.	No suitable habitat. Does not occur.
Western spadefoot toad <i>Scaphiopus hammondi</i>	Federal: None State: None CDFW: CSC	Coastal sage scrub, vernal pools, and grasslands; breeds in associated temporary pools and riparian areas.	No suitable habitat. Does not occur.
REPTILES			
Coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	Federal: None State: None CDFW: CSC	Open areas within coastal sage scrub, chaparral, grassland, desert scrub, washes, sand flats, & rocky areas.	No suitable habitat. Does not occur.
California glossy snake <i>Arizona elegans occidentalis</i>	Federal: None State: None CDFW: CSC	Inhabits arid scrub, rocky washes, grasslands, chaparral.	No suitable habitat. Does not occur.
Orange-throated whiptail <i>Aspidoscelis hyperythra</i>	Federal: None State: None CDFW: CSC	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes & other sandy areas with patches of brush & rocks. Perennial plants necessary for its major food –termites.	No suitable habitat. Does not occur.
Coast horned lizard <i>Phrynosoma blainvillii</i>	Federal: None State: None CDFW: CSC	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	No suitable habitat. Does not occur.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Red diamond rattlesnake <i>Crotalus ruber</i>	Federal: None State: None CDFW: CSC	Chaparral, woodland, grassland, & desert areas from coastal San Diego county to the eastern slopes of the mountains. Occurs in rocky areas & dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	No suitable habitat. Does not occur.
Southern California legless lizard <i>Anniella stebbinsi</i>	Federal: None State: None CDFW: CSC	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub; found in a broader range of habitats than any of the other species in the genus. Often locally abundant, specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans	No suitable habitat. Does not occur.
Western pond turtle <i>Clemmys marmorata pallida</i>	Federal: FSC State: None CDFW: CSC	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.	No suitable habitat. Does not occur.
Two-striped garter snake <i>Thamnophis hammondi</i>	Federal: None State: None CDFW: CSC	Highly aquatic. Found in freshwater marshes and riparian habitats, in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	No suitable habitat. Does not occur.
BIRDS			
Belding's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	Federal: None State: SE CDFW: None	Coastal Saltmarsh	No suitable salt marsh habitat. Does not occur.
Burrowing owl <i>Athene cunicularia</i>	Federal: None State: None CDFW: CSC	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	
California black rail <i>Laterallus jamaicensis coturniculus</i>	Federal: None State: ST CDFW: CFP	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	No suitable marsh habitat. Does not occur.
California horned lark <i>Eremophila alpestris actia</i>	Federal: None State: None CDFW: CSC	Occupies a variety of open habitats, usually where trees and large shrubs are absent.	No suitable habitat. Does not occur.
California least tern (nesting colony) <i>Sterna antillarum browni</i>	Federal: FE State: SE CDFW: CFP	Flat, vegetated substrates near the coast. Occurs near estuaries, bays, or harbors where fish is abundant.	
Coastal cactus wren <i>Campylorhynchus brunneicapillus couesi</i>	Federal: None State: None CDFW: CSC	Southern California coastal sage scrub. Wrens require tall opuntia cactus for nesting and roosting.	No suitable cactus scrub habitat. Does not occur.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Coastal California gnatcatcher <i>Poliophtila californica californica</i>	Federal: FT State: None CDFW: CSC	Low elevation coastal sage scrub and coastal bluff scrub.	Observed onsite by GEC.
Cooper's hawk (nesting) <i>Accipiter cooperi</i>	Federal: None State: None CDFW: 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.	Suitable nesting and foraging habitat onsite. Expected to occur.
Ferruginous hawk <i>Buteo regalis</i>	Federal: FSC State: None CDFW: CSC	Only present as wintering individuals. Prefers open grasslands and agricultural areas.	Potential winter visitor for foraging only
Golden Eagle <i>Aquila chrysaetos</i>	Federal: None State: None CDFW: CFP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Potential visitor for foraging. Noe suitable areas for nesting.
Grasshopper sparrow (nesting) <i>Ammodramus savannarum</i>	Federal: None State: None CDFW: CSC	Occurs in dense grasslands on rolling hills, lowland plains, in valleys, and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting.	Suitable habitat onsite. Not detected during surveys.
Least Bell's vireo <i>Vireo belii pusilus</i>	Federal: FE State: SE CDFW: CSC	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	No suitable riparian habitat onsite. Does not occur.
Light-footed Ridgway's rail <i>Rallus obsoletus levipes</i>	Federal: FE State: SE CDFW: CFP	Marsh vegetation of coastal wetlands.	No suitable salt marsh habitat. Does not occur.
Loggerhead shrike <i>Lanius ludovaicianus</i>	Federal: None State: None CDFW: CSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree & riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting with perches for scanning and fairly dense shrubs and brush for nesting.	Not expected to occur due to the disturbed nature of the site..
Long-eared owl (nesting) <i>Asio otus</i>	Federal: None State: None CDFW: CSC	Riparian habitats are required by the long-eared owl, but it also uses live-oak thickets and other dense stands of trees.	No suitable habitat. Does not occur.
Merlin <i>Falco columbarius</i>	Federal: None State: None CDFW: CSC	Only present as wintering individuals. Forages in a variety of habitats including riparian areas, open woodlands, grasslands, farms, and ranches.	No suitable habitat. Does not occur.
Northern harrier (nesting) <i>Circus cyaneus</i>	Federal: None State: None CDFW: CSC	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands. Nests on the ground in shrubby vegetation usually at a marsh edge.	No suitable nesting habitat. Does not occur.
Osprey <i>Pandion haliaetus</i>	Federal: None State: None CDFW: CSC	Ocean shore, bays, fresh-water lakes, and larger streams. Large nests built in	No suitable open water onsite. Does not occur.

Species Name	Status	Habitat Requirements	Potential for Occurrence
		treetops within one mile of a good fish-producing body of water.	
Southwestern willow flycatcher (nesting) <i>Empidonax traillii extimus</i>	Federal: FE State: SE CDFW: None	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	No suitable riparian habitat onsite. Does not occur.
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	Federal: None State: CE CDFW: CSC	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	No suitable habitat. Does not occur.
Western yellow-billed cuckoo (nesting) <i>Coccyzus americanus occidentalis</i>	Federal: FT State: SE CDFW: None	Dense, wide riparian woodlands with well-developed understories.	No suitable riparian habitat onsite. Does not occur.
White-tailed kite (nesting) <i>Elanus leucurus</i>	Federal: FSC State: None CDFW: CFP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Not expected to occur onsite.
Yellow-breasted chat (nesting) <i>Icteria virens</i>	Federal: None State: None CDFW: CSC	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	No suitable riparian habitat onsite. Does not occur.
Yellow rail <i>Coturnicops noveboracensis</i>	Federal: None State: None CDFW: CSC	Shallow marshes, and wet meadows; in winter, drier freshwater and brackish marshes, as well as dense, deep grass, and rice fields.	No suitable marsh habitat onsite. Does not occur.
Yellow warbler (nesting) <i>Setophaga petechia</i>	Federal: None State: None CDFW: CSC	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	No suitable riparian habitat onsite. Does not occur.
MAMMALS			
American badger <i>Taxidea taxus</i>	Federal: None State: None CDFW: CSC	Occurs in drier shrub, forest, and herbaceous habitats. Needs open, uncultivated ground and friable soils for digging burrows. Preys on burrowing rodents.	No suitable habitat. Does not occur.
Big free-tailed bat <i>Nyctinomops macrotis</i>	Federal: None State: None CDFW: CSC	Occurs in low-lying arid areas in Southern California. Roosts in high cliffs or rocky outcrops.	No suitable habitat. Does not occur.
Dulzura pocket mouse <i>Chaetodipus californicus femoralis</i>	Federal: None State: None CDFW: CSC	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	No suitable habitat. Does not occur.
Mexican long-tongued bat <i>Choeronycteris mexicana</i>	Federal: None State: None CDFW: CSC	Occasionally found in San Diego County, which is on the periphery of its range. Feeds on nectar and pollen of night-blooming succulents. Roosts in relatively well-lit caves, and in and around buildings.	No suitable habitat. Does not occur.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	Federal: None State: None CDFW: CSC	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	No suitable habitat. Does not occur.
Pacific pocket mouse <i>Perognathus longimembris pacificus</i>	Federal: FE State: None CDFW: CSC	Fine, alluvial soils along the coastal plain. Scarcely in rocky soils of scrub habitats.	No suitable habitat. Does not occur.
Pallid bat <i>Antrozous pallidus</i>	Federal: None State: None CDFW: CSC WBWG: H	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	No suitable habitat. Does not occur.
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	Federal: None State: None CDFW: CSC WBWG: M	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	Not expected to occur due to the disturbed nature of the site.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	Federal: None State: None CDFW: CSC	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	No suitable habitat. Does not occur.
Southern California saltmarsh shrew <i>Sorex ornatus salicoricus</i>	Federal: None State: None CDFW: CSC	Coastal marshes. Requires dense vegetation and woody debris for cover.	No suitable habitat. Does not occur.
Southern grasshopper mouse <i>Onychomys torridus ramona</i>	Federal: None State: None CDFW: CSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	No suitable habitat. Does not occur.
Stephens' kangaroo rat <i>Dipodomys stephensi</i>	Federal: FE State: ST CDFW: None	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	No suitable habitat. Does not occur.
Western mastiff bat <i>Eumops perotis californicus</i>	Federal: None State: None CDFW: CSC	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, & tunnels.	Not expected to occur due to a general lack of tall roosting sites.
Western red bat <i>Lasiurus blossevillii</i>	Federal: None State: None CDFW: CSC WBWG: H	Prefers riparian areas dominated by walnuts, oaks, willows, cottonwoods, and sycamores where they roost in broad-leaved trees.	No suitable habitat. Does not occur.

Federal

FE – Federally Endangered

FT – Federally Threatened

FSC – Federal Species of Special Concern

CDFW

CSC – California Species of Special Concern

CFP – California Fully Protected Species

WL – Watch List

State

SE – State Endangered

ST – State Threatened

Western Bat Working Group

H – High Priority

M – Medium Priority

4.4.1 Special-status Animals Observed or Expected to Occur on the Project Site

Coastal California gnatcatcher (*Polioptila californica californica*)

GEC reported coastal California gnatcatcher during non-protocol surveys in 2019. The site contains little suitable habitat, which is restricted to 0.49-acre of Menzies golden bush scrub with California gnatcatcher locations depicted on Exhibit 3.

Cooper's hawk (*Accipiter cooperi*)

The Cooper's hawk is a CDFG Watch List species. Cooper's hawks are found in woodland habitats. The Cooper's hawk is a wide-ranging species in North America that breeds from British Columbia eastward to Nova Scotia and southward to northern Mexico and Florida. This species preys primarily on birds but they are known to eat small mammals, reptiles, amphibians, insects and fish. The Cooper's Hawk is expected to forage on the site and the scattered oaks along Drainage A provide potential nesting habitat.

4.5 Special-Status Habitats

CNDDDB Review

A review of the May 2010 CNDDDB identified the following special-status habitats as occurring within the Dana Point, Laguna Beach, and San Juan Capistrano quadrangles: southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern sycamore alder riparian woodland, and valley needlegrass grassland. None of the special-status habitats identified in the CNDDDB review occur on site.

4.6 Critical Habitat

The County portion of the Project Site is within Critical Habitat for the coastal California gnatcatcher designated by the US Fish and Wildlife Service. The area of Critical Habitat is depicted on Exhibit 3.

4.7 Jurisdictional Waters

Corps Jurisdiction

Corps jurisdiction associated with the Lower Curtis Park site totals approximately 0.22 acre of water of the United States of which 0.06 acre consists of wetlands as depicted on Exhibit 5A. The boundaries of the waters of the United States are depicted on the enclosed maps. The site contains two drainages that developed following construction of Olympiad Road adjacent development with the construction of storm drains that discharge to the site. Drainage A is an intermittent drainage, tributary to Arroyo Trabuco Creek, which is an intermittent drainage course that is tributary to San Juan Creek, which is tributary to the Pacific Ocean and thus, is a Water of the U.S. Drainage B is an ephemeral drainage that only flows in direct response to

rainfall and does not meet the definition of Waters of the U.S. under the Navigable Waters Protection Rule as discussed in more detail below.

Drainage A

Drainage A originates from a storm drain that discharges near the south-central portion of the site and includes 0.215 acre of Waters of the U.S., of which 0.063 acre consist of jurisdictional wetland. From the storm drain outfall, the drainage extends to the east, ultimately exiting the site before discharging to Arroyo Trabuco Creek. The drainage receives nuisance water that enters the site from the storm drain outfall and portions of the drainage exhibit standing or flowing water. Approximately 50 feet downstream of the outfall, a stand of southern cattail (*Typha domingensis*, OBL) starts and extends to where yerba mansa (*Anemopsis californica*, OBL) becomes dominant in the understory with a canopy of non-native Mexican fan palms (*Washingtonia robusta*, FACW). Soils in the area exhibit hydric characteristics including Hydrogen Sulfide (A4), and Redox Dark Surface (F6). Indicators for wetland hydrology include standing water, and saturation in the upper 12 inches. The wetland varies in width from 4 to 40 feet. Downstream of the wetland, the drainage ranges in width from four to 12 feet and the presence of an OHWM is indicated by the shelving and debris wrack.

Below the wetland the channel is variously vegetated with Spanish sunflower (*Pulicaria paludosa*), upland non-native grasses and forbs or is unvegetated. Below the wetland the drainage banks support upland shrubs including a predominance of coyote brush (*Baccharis pilularis*, UPL).

Drainage B

Drainage B is a deep erosional gully that extends 564 feet from near the western site boundary to where the feature exits the site, where it discharges to the Arroyo Trabuco Creek and would not be considered a Water of the U.S. under the Navigable Waters Protection Rule due to its ephemeral flows. The gully is up to approximately 30 feet deep and indicators for an OHWM are limited to the very bottom of the gully ranging from three to five feet in width. The gully bottom is unvegetated and indicators for the presence of an OHWM consists of shelving and changes in the character of the soil.

As noted, under the Navigable Waters Protection Rule, this feature would not likely be considered a Water of the U.S. because of its ephemeral character. Specifically, the Navigable Waters Protection Rule excludes ephemeral drainages:

Section 328.3b of the NWPRA states:

(b) Non-jurisdictional waters. The following are not “waters of the United States”:
(1) Waters or water features that are not identified in paragraph (a)(1), (2), (3), or (4) of this section; (2) Groundwater, including groundwater drained through subsurface drainage systems; (3) Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;

The definition for ephemeral streams is defined in the NWPR as:

Ephemeral. The term ephemeral means surface water flowing or pooling only in direct response to precipitation (e.g., rain or snow fall).

Table 4-7.1: Summary of Corps Jurisdiction

Name	Type	Acres	Linear Feet
Drainage A	Wetland	0.063	151
Drainage A	Non-Wetland Waters	0.152	748
Drainage B	Not Jurisdictional	NA	NA
	Total	0.215	899

CDFW Jurisdiction

Drainage A

CDFW jurisdiction includes all areas of Corps jurisdiction and extends to the top of the drainage banks or the edge of the riparian canopy and totals 0.540 acre of which 0.217 acre consists of vegetated riparian habitat as depicted on Exhibit 5B. Riparian vegetation includes the southern cattail (*Typha domingensis*, OBL), yerba mansa (*Anemopsis californica*, OBL) and includes non-native Mexican fan palms (*Washingtonia robusta*, FACW) a few coast live oaks (*Quercus agrifolia*, UPL), and mulefat scrub in the lower portions of the drainage.

Drainage B

Drainage B is a deep erosional gully that extends 564 feet from near the western site boundary to where the feature exits the site, where it discharges to the Arroyo Trabuco Creek. The gully is up to approximately 30 feet deep and the depth at top of bank ranges from 10 to 20 feet and totals 0.182 acre. The gully is unvegetated and indicators for flow consist of shelving and changes in the character of the soil.

Table 4-7.2: Summary of CDFW Jurisdiction

Name	Type	Acres	Linear Feet
Drainage A	Riparian	0.323	364
Drainage A	Non-Riparian Stream	0.217	535
Drainage B	Non-Riparian Stream	0.182	564
	Total	0.215	1,463

Regional Water Quality Control Board Jurisdiction

Drainage A

Drainage A originates from a storm drain that discharges near the south-central portion of the site and includes 0.277 acre of Waters of the State., of which 0.06 acre consist of jurisdictional wetland as depicted on Exhibit 5C. As noted above, approximately 50 feet downstream of the outfall, a stand of southern cattail (*Typha domingensis*, OBL) starts and extends to where yerba mansa (*Anemopsis californica*, OBL) becomes dominant in the understory with a canopy of non-native Mexican fan palms (*Washingtonia robusta*, FACW). Soils in the area exhibit hydric characteristics including Hydrogen Sulfide (A4), and Redox Dark Surface (F6). Indicators for wetland hydrology include standing water, and saturation in the upper 12 inches. The wetland varies in width from 4 to 40 feet. Downstream of the wetland, the drainage ranges in width from four to 12 feet and the presence of an OHWM is indicated by the shelving and debris wrack.

Drainage B

Drainage B is a deep erosional gully that extends 564 feet from near the western site boundary to where the feature exits the site, where it discharges to the Arroyo Trabuco Creek. The gully is up to approximately 30 feet deep and the depth at top of bank ranges from 10 to 20 feet and Waters of the State totals 0.182 acre. The gully is unvegetated and indicators for flow consist of shelving and changes in the character of the soil.

Table 4-7.3: Summary of Regional Board Jurisdiction			
Name	Type	Acres	Linear Feet
Drainage A	Wetland	0.063	151
Drainage A	Non-Wetland Stream	0.217	748
Drainage B	Non-Riparian Stream	0.182	564
	Total	0.462	1,463

5.0 IMPACT ANALYSIS

The following discussion examines the potential impacts to plant and wildlife resources that may occur as a result of implementation of the project. Project-related impacts can occur in two forms, direct and indirect. Direct impacts are 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 destruction of individual plants or wildlife, 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.

Other impacts, such as loss of foraging habitat, can occur although these areas or habitats are not directly removed by project development; i.e., indirect impacts. Indirect impacts can also involve the effects of increases in ambient levels of noise or light, unnatural predators (i.e.,

domestic cats and other non-native animals), competition with exotic plants and animals, and increased human disturbance such as hiking and dumping of green waste on site. Indirect impacts may be associated with the subsequent day-to-day activities associated with project build-out, such as increased traffic use, permanent concrete barrier walls or chain link fences, exotic ornamental plantings that provide a local source of seed, etc., which 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 exotics, and changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundances in habitats adjacent to project sites.

The potential for significant adverse effects, either directly or through habitat modifications, on any special-status plant, animal, or habitat that could occur as a result of project development is discussed below.

5.1 California Environmental Quality Act

Thresholds of Significance

Environmental impacts relative 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.

Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 2019 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 state or federally protected wetlands (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.*

- 5.1.1 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.**

Impacts to Special Status Plants Observed on The Project Site

No special-status plants were detected on the site and there would be no significant impacts on special-status plants.

Impacts to Special Status Animals Observed on the Project Site

Coastal California Gnatcatcher (*Poliophtila californica californica*)

GEC observed three coastal California gnatcatchers foraging on the site within the 0.49-acre area of Menzies goldenbush scrub during one of four survey visits which occurred in September and October 2019. Because the observation was made outside the breeding season, consisted three individuals it cannot be determined whether the species is a resident family group from earlier in the season or were dispersing across the site. GLA has not observed the coastal California gnatcatcher in the same area during site visits including a site visit on June 18, 2020, which is within the breeding season. The coastal California gnatcatcher is a federally listed threatened species and impacts in the form of loss of foraging habitat for this species would be considered significant before mitigation. With mitigation, the impacts would be reduced to less-than significant.

Cooper's hawk (*Accipiter cooperi*)

Cooper's hawk is expected to forage on the project site. Additionally, the coast live oaks may provide nesting habitat for Cooper's hawk, although no nests were observed. The project would impact potential nesting and foraging habitat; however, the Cooper's hawk is wide-spread and common and thus no potentially significant impacts to Cooper's hawks are associated with the project.

Impacts to Vegetation Associations/Land Use Types

Permanent impacts to vegetation alliances and land cover types associated with the Project footprint account for approximately 39.52-acres of the 40.26-acre Project site and are depicted on Exhibit 6. Of these, 34.83 acres (86.5-percent of the site) consist of non-native grassland, mustard, artichoke thistle, Mexican fan palm and pampas grass. An additional 2.24 acres include disturbed areas and areas of ornamental vegetation for a total of 37.07 acres of non-native land cover types accounting for 92-percent of the site. Table 5.1 below summarizes both permanent and temporary impacts associated with Project implementation.

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

The project will impact very small areas of following special-status vegetation alliances: *Anemopsis californica* Herbaceous Alliance – Yerba mansa meadows; *Nasella pulchra* Herbaceous Alliance – Purple needle grass grassland; *Rhus integrifolia* Shrubland Alliance – Lemonade berry scrub; and *Sambucus nigra* Shrubland Alliance – Blue elderberry stands.

Table 5-1.1: Summary of Vegetation Alliances and Land Cover on Site			
Vegetation Type	MCV II	Total (acres)	Impacts
<i>Anemopsis californica</i> Herbaceous Alliance – Yerba mansa meadows	S2?	0.05	0.05
<i>Baccharis pilularis</i> Shrubland Alliance – Coyote brush scrub	S5	0.53	0.53
<i>Baccharis salicifolia</i> Shrubland Alliance – Mulefat thickets	S4	0.29	0.29
<i>Brassica (nigra)</i> and Other Mustards Semi-Natural Herbaceous Stands – Upland mustards	NA	15.01	14.57
<i>Cortaderia (jubata, selloana)</i> Semi-Natural Herbaceous Stands – Pampas grass patches	NA	0.04	0.04
<i>Cynara cardunculus</i> Semi-Natural Herbaceous Stands – artichoke thistle stands	NA	20.36	20.20
Disturbed	NA	1.43	1.31
<i>Isocoma menziesii</i> Shrubland Alliance – Menzie's golden bush scrub	S4?	0.49	0.49
Mixed Scrub/Disturbed	NA	0.48	0.48
<i>Nasella pulchra</i> Herbaceous Alliance – Purple needle grass grassland	S3?	0.28	0.28
Ornamental	NA	0.95	0.93
<i>Quercus agrifolia</i> Woodland Alliance – Coast live oak woodland	S4	0.23	0.23
<i>Rhus integrifolia</i> Shrubland Alliance – Lemonade berry scrub	S3	0.02	0.02
<i>Salix lasiolepis</i> Shrubland Alliance – Arroyo willow thickets	S4	0.04	0.04
<i>Sambucus nigra</i> Shrubland Alliance – Blue elderberry stands	S3	0.02	0.02
<i>Typha (angustifolia, domingensis, latifolia)</i> Herbaceous Alliance – Cattail marshes	S5	0.02	0.02
<i>Washingtonia robusta</i> Semi-Natural Woodland Alliance – Mexican fan palm	NA	0.02	0.02
Total		40.26	39.52

***Anemopsis californica* Herbaceous Alliance – Yerba mansa meadows**

The project will impact 0.05 acre of yerba mansa, which is growing in the upper portions of Drainage A. This alliance has a Rarity Ranking of S2 and impacts to this alliance would be considered significant before mitigation. The area where the yerba mansa occurs is wetland under Section 404 of the Clean Water Act as well as by the State of

California as discussed under paragraph C below. With mitigation, impacts to this alliance would be reduced to less-than-significant.

***Nasella pulchra* Herbaceous Alliance – Purple needle grass grassland**

The project will impact 0.28 acre of purple needlegrass grassland, which is growing in a 0.28-acre area immediately south of the upper portions of Drainage A. This alliance has a Rarity Ranking of S3 and impacts to this alliance would be considered significant before mitigation. With mitigation, impacts to this alliance would be reduced to less-than-significant.

***Rhus integrifolia* Shrubland Alliance – Lemonade berry scrub**

The project will impact 0.02 acre of lemonade berry scrub, which is growing as a single clump along the lower portion of Drainage A. This alliance has a Rarity Ranking of S3 however, because of the limited size of this patch and upland status, the impacts would not be considered significant and would not require mitigation.

***Sambucus nigra* Shrubland Alliance – Blue elderberry stands**

The project will impact 0.02 acre of blue elderberry, which is growing as a single clump along the lower portion of Drainage A. This alliance has a Rarity Ranking of S3 however, because of the limited size of this patch and upland status, the impacts would not be considered significant and would not require mitigation.

Riparian Habitat

The project will impact 0.40 acre of riparian habitat subject to the notification requirements of the California Department of Fish and Wildlife pursuant to Section 1602 of the California Fish and Game Code including 0.05 acre of yerba mansa, 0.04 acre arroyo willow, 0.02 acre of southern cattail and 0.29 acre of mulefat scrub. Impacts to riparian habitat would be considered significant under CEQA. With mitigation, impacts to this alliance would be reduced to less-than-significant.

5.1.3 c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

The project will impact 0.063 acre of wetlands pursuant to Section 404 of the federal Clean Water Act and Section 401 and Porter Cologne under the State Regional Water Quality Control Board. Impacts to wetland habitat would be considered significant under CEQA. With mitigation, impacts to this alliance would be reduced to less-than-significant.

5.1.4 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.

Arroyo Trabuco Creek is identified in the Orange County SSHCP as part of a linkage system from Casper's Regional Park to O'Neill Regional Park. Riparian corridors are typically used by wildlife as movement corridors and this drainage links inland areas of Orange County with the Pacific Ocean. The limits of the project are generally 400 feet or more from the edge of the riparian habitat associated with Trabuco Creek, with the nearest location approximately 350 feet. The site is also topographically separated by slopes, some of which are quite steep, providing vertical separation as well. Thus, the project would not affect wildlife movement associated with Arroyo Trabuco Creek.

Nesting Avifauna

The project site currently contains trees and shrubs that have the potential to support nesting birds. Impacts to migratory nesting birds are prohibited under the Migratory Bird Treaty Act.⁶ Mitigation is necessary to reduce potential impacts to less than significant.

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

There are no City or County tree preservation ordinances protecting biological resources that would conflict with the project.

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

The project would impact 13.07 acres of land owned by the County of Orange and part of the SSHCP Habitat Reserve, which is also designated as Critical Habitat for the coastal California gnatcatcher. The 13.07 acres includes a predominance of non-native vegetation alliances including 11.94 acres of non-native mustard fields and very limited areas of native habitat including 0.39 acres of coyote brush scrub, 0.29 acre of mulefat scrub, 0.22 acre of purple needlegrass grassland, 0.02 acre of lemonade berry scrub, 0.12 acre of coast live oak, 0.03 acre of pampas grass, and 0.02 acre of elderberry scrub as summarized in Table 5-2 below.

The loss of lands, albeit lands covered with a predominance of non-native mustard fields in the SSHCP Habitat Reserve that is also designated as Critical Habitat would be a significant impact and would require mitigation in the form of replacement with lands of equal or greater value.

⁶ The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

This would be implemented through a Minor Amendment of the SSHCP wherein suitable replacement lands would be identified in coordination with U.S. Fish and Wildlife Service. With approval of the replacement lands, the impact to Habitat Reserve lands and Critical Habitat would be mitigated to less than significant.

Table 5-2. Summary of Vegetation Impacts on County/HCP/Critical Habitat Land

Vegetation Type	MCV II	Total (acres)	Impacts
<i>Baccharis pilularis</i> Shrubland Alliance – Coyote brush scrub	S5	0.39	0.39
<i>Baccharis salicifolia</i> Shrubland Alliance – Mulefat thickets	S4	0.29	0.29
<i>Brassica (nigra)</i> and Other Mustards Semi-Natural Herbaceous Stands – Upland mustards	NA	11.93	11.67
<i>Cortaderia (jubata, selloana)</i> Semi-Natural Herbaceous Stands – Pampas grass patches	NA	0.03	0.03
<i>Nasella pulchra</i> Herbaceous Alliance – Purple needle grass grassland	S3?	0.22	0.22
<i>Quercus agrifolia</i> Woodland Alliance – Coast live oak woodland	S4	0.12	0.12
<i>Rhus integrifolia</i> Shrubland Alliance – Lemonade berry scrub	S3	0.02	0.02
<i>Salix lasiolepis</i> Shrubland Alliance – Arroyo willow thickets	S4	0.04	0.04
<i>Sambucus nigra</i> Shrubland Alliance – Blue elderberry stands	S3	0.02	0.02
Total		13.07	12.80

5.2 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 associated with drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; and invasive plant species from landscaping. Temporary, indirect effects may also occur as a result of construction-related activities. Each of these is addressed below:

5.2.1 Water Quality

Construction of the project has been designed to ensure that project drainage is treated before being discharged offsite to Trabuco Creek and there will be no impacts to adjacent open space due to grading as the City would prepare a Stormwater Pollution Prevention Plan (SWPPP) that addresses construction BMPs (desilting basins, straw waddles, and hydroseed) necessary to stabilize the site until the ultimate condition. During this phase, the City would enroll the

construction site under the Construction General Permit with the State Water Resources Control Board and obtain a Notice of Intent to Discharge (NOI) number. The NOI would be renewed annually until such time that the site is completed to the ultimate condition. Termination of the NOI, would trigger preparation of a WQMP outlining the structural treatment controls for the site (which would be minimal) since the proposed ultimate condition is a series of grassy baseball fields, driveways, and parking areas. With the combination of the SWPPP for construction and a Water Quality Management Plan for the ultimate condition, erosion and discharge of surface runoff to the adjacent open space would be fully addressed. There would be no significant indirect impacts to water quality associated with the project.

5.2.2 Lighting Impacts

Grading for the project would not include introduction of lighting to the site. There would be no significant indirect impacts due to lighting associated with the initial phase of the project. The ultimate condition would be addressed through additional environmental review.

5.2.3 Noise Impacts

The project will result in temporary noise impacts associated with construction activities. Long-term post project conditions would be occupation of the site by a rough-graded pad. There would be no significant indirect impacts due to noise once construction is completed associated with the project.

5.2.4 Invasive Species

The project will not incorporate any non-native invasive species within the landscape plant palette. There are no potential significant impacts associated with invasive species associated with the project.

6.0 MITIGATION

The following section discusses actual or potential impacts to sensitive resources that would be considered potentially significant prior to mitigation. As applicable, specific mitigation measures are provided to ensure that impacts to sensitive biological resources, as a result of the Project, are less than significant after mitigation. The City has identified an approximately 25.7-acre parcel immediately to the north of the site, depicted on Exhibit 7. The 25.7-acre parcel includes approximately 10.7 acres of high quality coastal sage scrub habitat, approximately 3.1 acres of southern coast live oak forest, as well as a variety of other land cover types including approximately 9.2 acres of disturbed habitats that would provide restoration opportunities. The 25.7-acre parcel also contains a drainage course along the southern parcel boundary the exhibits opportunities for preservation, enhancement and establishment of wetland and riparian resources.

6.1 Special-Status Animals

City-owned lands include 0.49 acre of Menzie's golden bush scrub where three coastal California gnatcatchers were observed foraging in September of 2019, which is outside the breeding season. Nevertheless, the loss of 0.49 acre of golden bush scrub used by this species would be considered significant; however, with mitigation, impacts would be reduced to less than significant.

6.1.1 Mitigation for the Coastal California Gnatcatcher

Mitigation will consist of the following options:

- Establishment of 0.98 acre of suitable coastal sage scrub habitat within City-owned lands that would be dedicated to the SSHCP Habitat Reserve, resulting in a 2:1 replacement of suitable habitat for the coastal California gnatcatcher; or
- Dedication to the SSHCP Habitat Reserve of 1.47 acres (3:1 ratio) of coastal sage scrub habitat suitable for the coastal California gnatcatcher.

Under either scenario, the lands would be transferred to the SSHCP Reserve for long-term conservation. If the first option (establishment) is selected, the City shall have a resource specialist familiar with restoration of coastal sage scrub will prepare a Habitat Mitigation and Monitoring Plan that includes the following components: 1) site selection, 2) site preparation, 3) plant palette, 4) maintenance methods, 5) monitoring methods, 6) performance standards, and 7) contingency measures. The plan would be submitted to the City, County, and USFWS for approval prior to initiation of the habitat establishment.

6.2 Special-Status Vegetation Alliances

The project would result in significant impacts to the following special-status vegetation alliances: 0.05 acre of *Anemopsis californica* Herbaceous Alliance – Yerba mansa meadows, and 0.28 acre of *Nasella pulchra* Herbaceous Alliance – Purple needle grass grassland.

6.2.1 *Anemopsis californica* Herbaceous Alliance – Yerba mansa meadows

Mitigation will consist of the following options:

- Establishment of 0.05 acre of yerba mansa meadow within City-owned lands resulting in a 1:1 replacement; or
- Dedication of 0.10 acre (2:1 ratio).

Under either scenario, the lands would be transferred to the SSHCP Reserve for long-term conservation. If the first option (establishment) is selected, the City shall have a resource specialist familiar with restoration of wetland habitat will prepare a Habitat Mitigation and Monitoring Plan that includes the following components: 1) site selection, 2) site preparation, 3) plant palette, 4) maintenance methods, 5) monitoring methods, 6) performance standards, and 7)

contingency measures. The plan would be submitted to the City, County, and USFWS for approval prior to initiation of the habitat establishment.

6.2.2 *Nasella pulchra* Herbaceous Alliance – Purple needle grass grassland

Mitigation will consist of the following options:

- Establishment of 0.28 acre of purple needlegrass grassland within City-owned lands resulting in a 1:1 replacement; or
- Dedication of 0.56 acre (2:1 ratio).

Under either scenario, the lands would be transferred to the SSHCP Reserve for long-term conservation. If the first option (establishment) is selected, the City shall have a resource specialist familiar with restoration of purple needlegrass grassland will prepare a Habitat Mitigation and Monitoring Plan that includes the following components: 1) site selection, 2) site preparation, 3) plant palette, 4) maintenance methods, 5) monitoring methods, 6) performance standards, and 7) contingency measures. The plan would be submitted to the City, County, and USFWS for approval prior to initiation of the habitat establishment.

6.3 Impacts to Woody Riparian Habitat

The project would result in impacts 0.33 acre of non-wetland riparian habitat including 0.29 acre of arroyo willow and 0.29 acre of mulefat scrub, subject to Section 1602 jurisdiction. The project would also impact 0.063 acre of wetland habitat including the yerba mansa addressed above and southern cattail. These are addressed below under “wetlands”.

Mitigation for impacts to 0.33 acre of woody riparian habitat will consist of the following option:

- Establishment of 0.29 acre of mulefat scrub and 0.04 acre of willow scrub within City-owned lands resulting in a 1:1 replacement.

Under this scenario, the lands would be transferred to the SSHCP Reserve for long-term conservation. If the first option (establishment) is selected, the City shall have a resource specialist familiar with restoration of riparian habitat will prepare a Habitat Mitigation and Monitoring Plan that includes the following components: 1) site selection, 2) site preparation, 3) plant palette, 4) maintenance methods, 5) monitoring methods, 6) performance standards, and 7) contingency measures. The plan would be submitted to the City, County, and USFWS for approval prior to initiation of the habitat establishment.

6.4 Impacts to State and Federal Wetlands

The project will impact 0.07 acre of State and federal wetlands totaling 0.07 acre (0.05 acre of yerba mansa meadow and 0.02 acre of southern cattail).

Mitigation for impacts to 0.07 acre of wetlands will consist of the following option:

- Establishment of 0.07 acre of wetland habitat including 0.05 acre of yerba mansa meadow and 0.02 acre of southern cattail on City-owned lands resulting in a 1:1 replacement.

Under this scenario, the lands would be transferred to the SSHCP Reserve for long-term conservation. If the first option (establishment) is selected, the City shall have a resource specialist familiar with restoration of wetlands will prepare a Habitat Mitigation and Monitoring Plan that includes the following components: 1) site selection, 2) site preparation, 3) plant palette, 4) maintenance methods, 5) monitoring methods, 6) performance standards, and 7) contingency measures. The plan would be submitted to the City, County, and USFWS for approval prior to initiation of the habitat establishment.

6.5 Impacts to SSHCP Lands and California Gnatcatcher Critical Habitat

The project would result in conversion of 12.80 acres of County-owned lands within the SSHCP Reserve that are also designated as Critical Habitat. The loss of lands, albeit lands covered with a predominance of non-native mustard fields in the SSHCP Habitat Reserve and Critical Habitat would be a significant impact and would require mitigation in the form of replacement with lands of equal or greater value. This would be implemented through a Minor Amendment of the SSHCP wherein suitable replacement lands would be identified in coordination with U.S. Fish and Wildlife Service. With approval of the replacement lands, the impact would be mitigated to less than significant.

As noted, the City has identified an approximately 25.7-acre parcel of which 10.73 acres consist of high quality coastal sage scrub and 3.06 acres consist of southern coast live oak woodland for a total of 13.79 acres of high quality habitat, which has substantially greater value than the 12.80 acres of land that includes 11.67 acres of non-native mustard fields and very limited areas of native habitat including 0.39 acres of coyote brush scrub, 0.29 acre of mulefat scrub, 0.22 acre of purple needlegrass grassland, 0.02 acre of lemonade berry scrub, 0.12 acre of coast live oak, 0.03 acre of pampas grass, and 0.02 acre of elderberry scrub as summarized in Table 5-2 above.

Impacts to 12.80 acres of mostly low value habitat would fully mitigated through dedication of 13.79 acres of high-quality habitat to the SSHCP Habitat Reserve consisting of 10.73 acres of coastal sage scrub and 3.06 acres of coast live oak forest. As noted, with approval of the replacement lands, the impact would be mitigated to less than significant.

6.6 Nesting Birds Protected Under the MBTA

As noted above, the site contains vegetation suitable for nesting birds (trees, shrubs, etc.). Because there is the potential for migratory birds to nest in vegetation on site, the following recommendations are provided to ensure that nesting birds.

- If feasible, the removal of vegetation should occur outside of the nesting season, generally recognized as February 15 to August 31 (potentially earlier for raptors). If

vegetation removal must occur during the nesting season, then a qualified biologist shall conduct a nesting bird survey prior to any vegetation removal. If active nests are identified, the biologist shall flag vegetation containing active nests. The biologist shall establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will be based on the species identified, but generally will consist of 50 feet for non-raptors and 300 feet for raptors and California gnatcatchers.

- If for some reason it is not possible to remove all vegetation during the non-nesting season, then vegetation to be removed during the nesting season must be surveyed by a qualified biologist no more than three days prior to removal. If no nesting birds are found, the vegetation can be removed. If nesting birds are detected, then removal must be postponed until the fledglings have vacated the nest or the biologist has determined that the nest has failed. Furthermore, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed.
- Similarly, for vegetation being preserved, if construction is to occur during the nesting season, preserved vegetation should be surveyed for the presence of nesting birds. If nesting birds are detected, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed.

7.0 CERTIFICATION

***"CERTIFICATION:** I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief."*

DATE: July 14, 2020

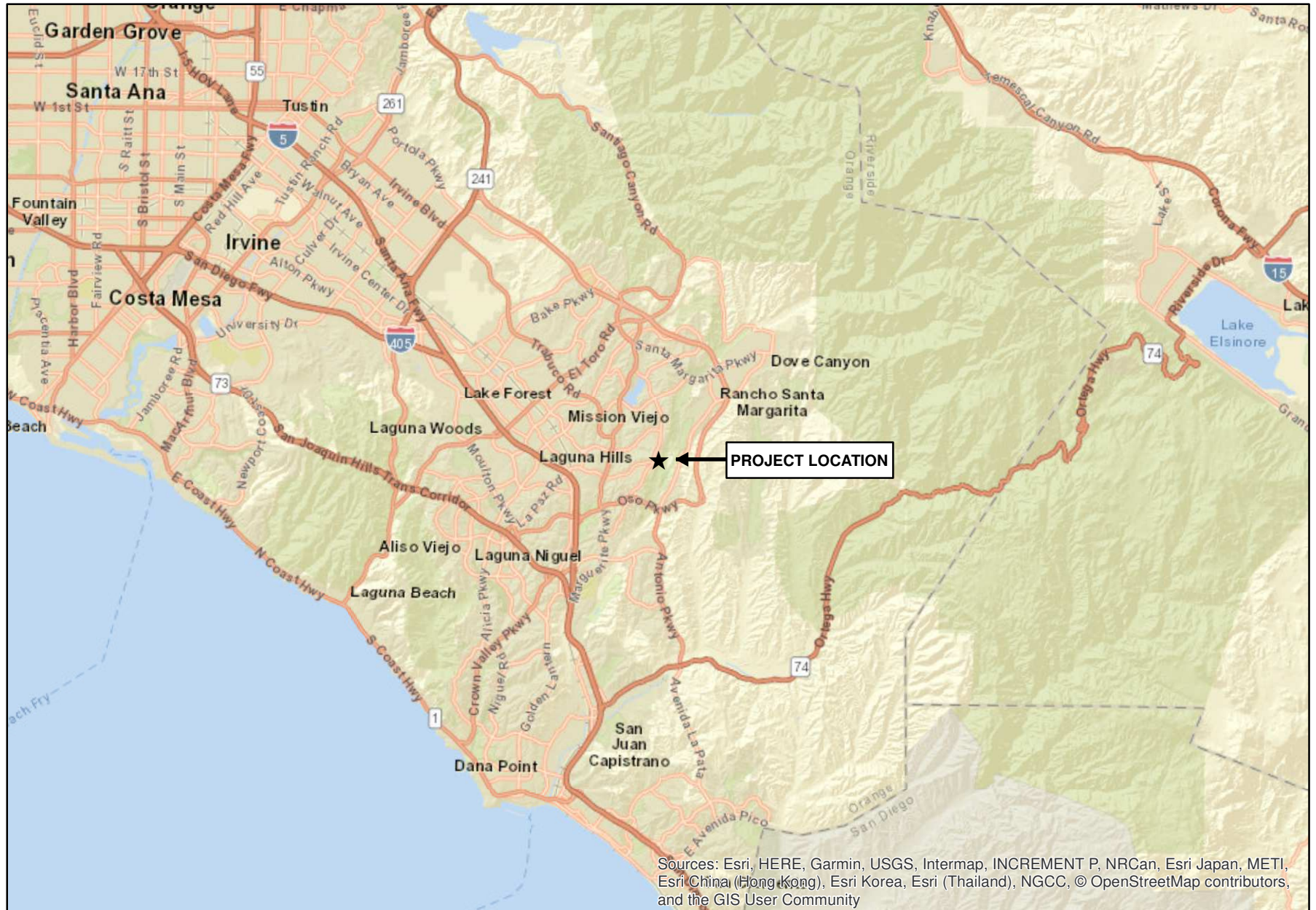
SIGNED. 

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Source: ESRI World Street Map



LOWER CURTIS PARK EXPANSION

Regional Map

GLENN LUKOS ASSOCIATES

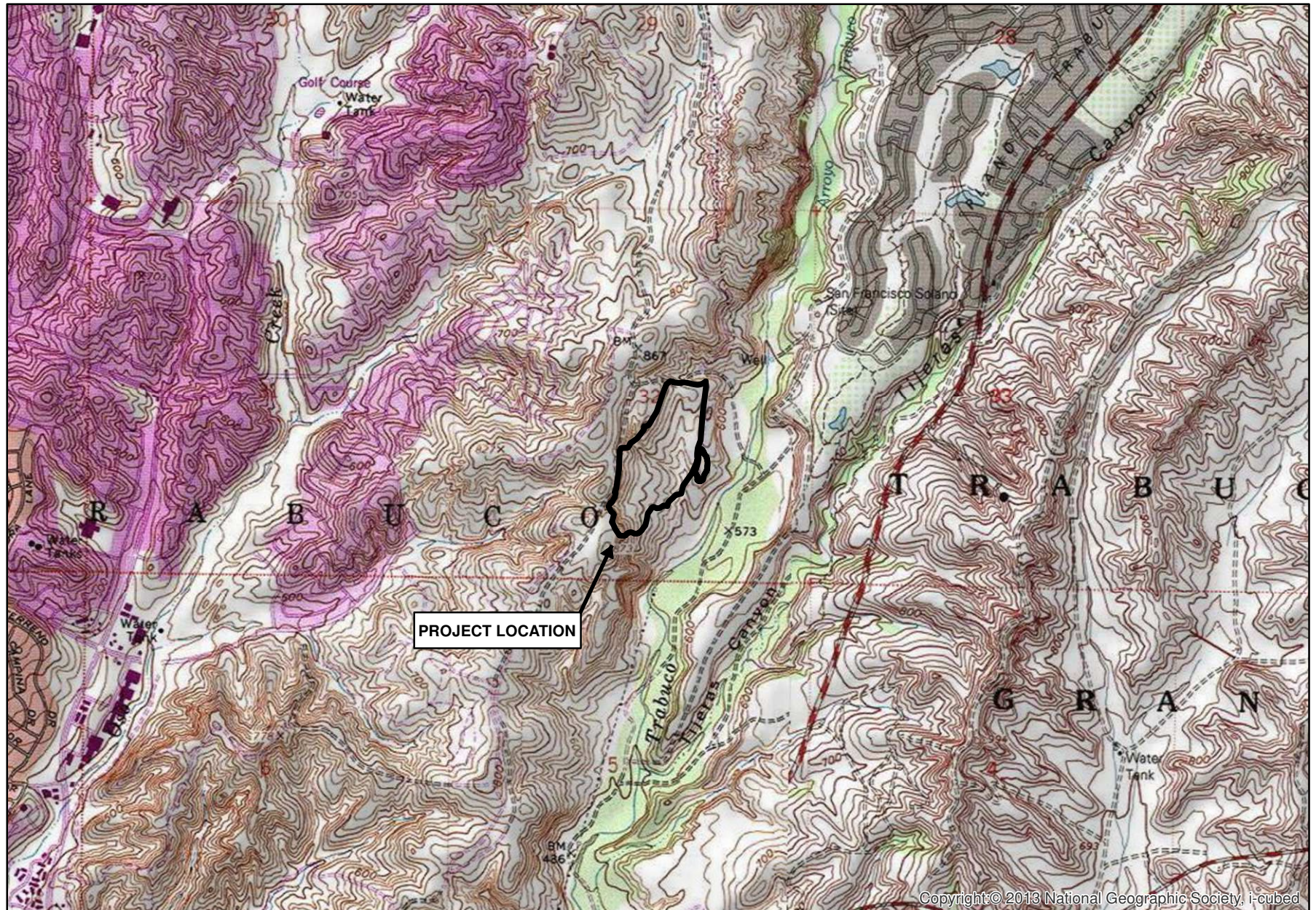
Exhibit 1



Adapted from USGS San Juan Capistrano, CA quadrangle



0
1,000
2,000
4,000
Feet



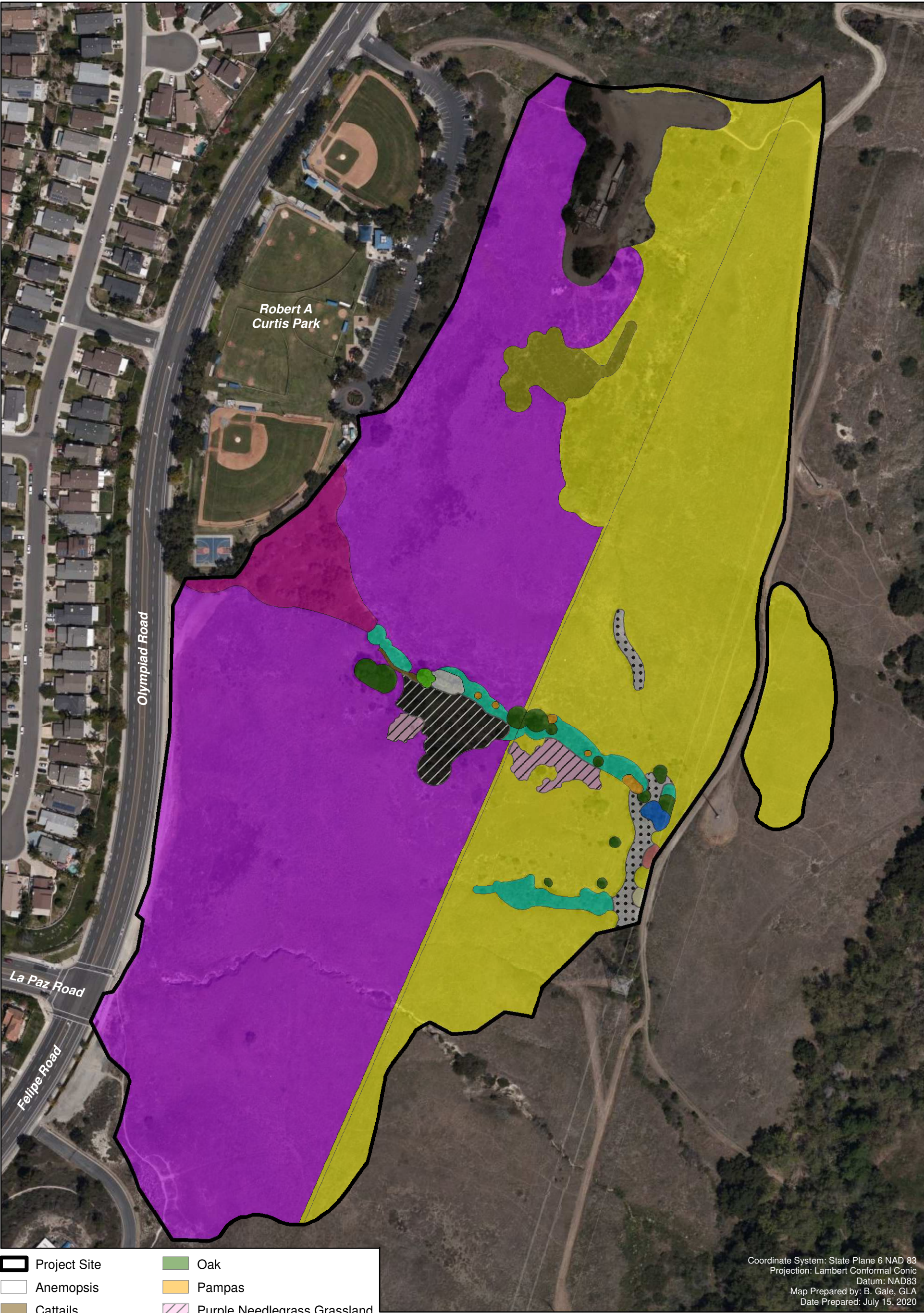
LOWER CURTIS PARK EXPANSION

Vicinity Map

GLENN LUKOS ASSOCIATES

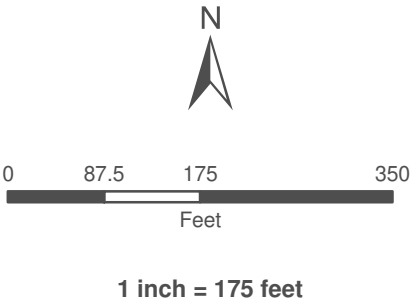
Exhibit 2





- | | |
|--|------------------------------|
| Project Site | Oak |
| Anemopsis | Pampas |
| Cattails | Purple Needlegrass Grassland |
| Coyote Bush Scrub | Upland Mustards |
| Elderberry | Willow |
| Goldenbush Scrub | Ornamental |
| Lemonade Berry | Mixed Scrub/Disturbed |
| Mexican Fan Palm | Disturbed |
| Mulefat Scrub | |
| Non-Native Grassland/Artichoke Thistle | |

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: July 15, 2020

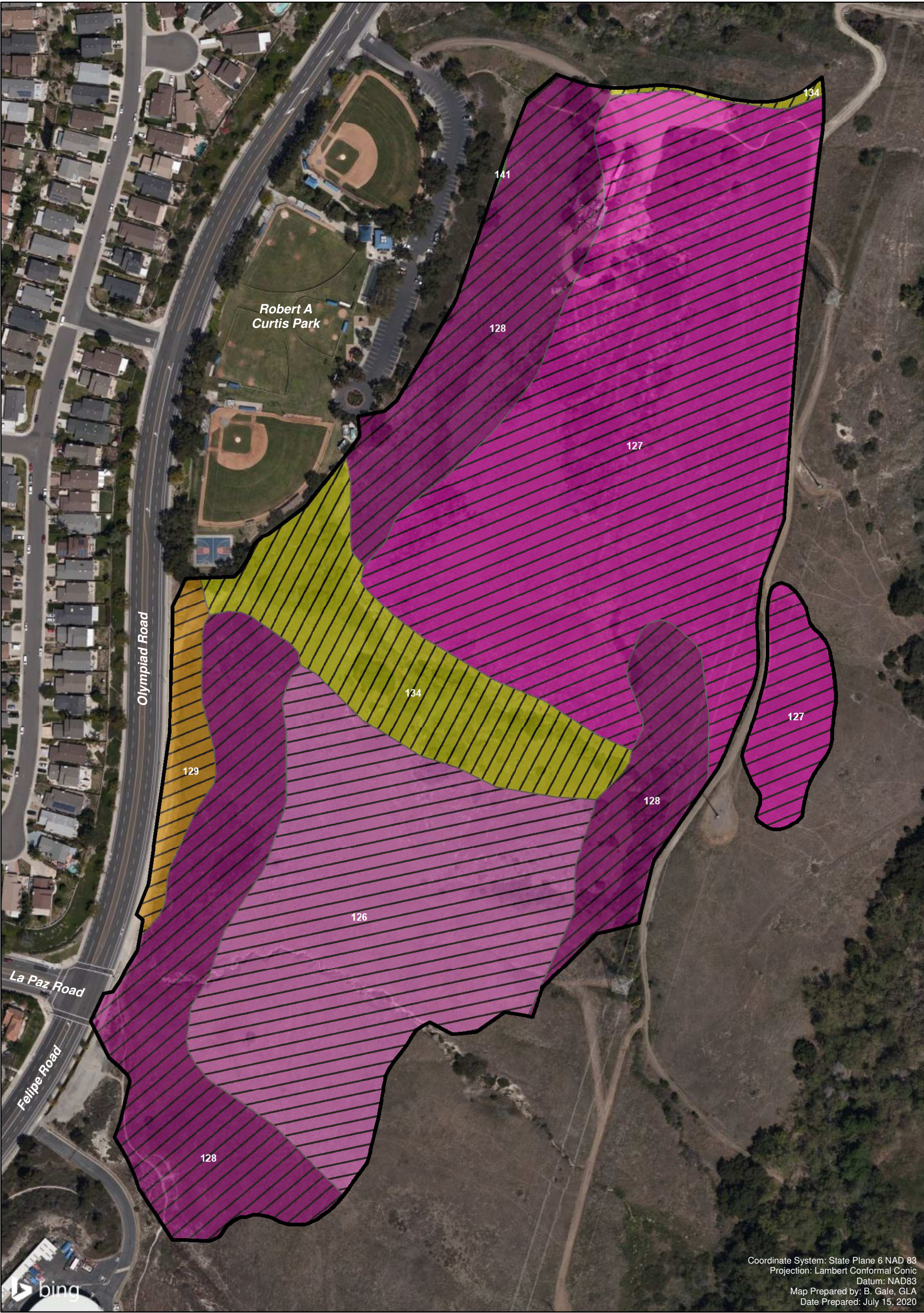


**LOWER CURTIS
PARK EXPANSION**
Vegetation Map

GLENN LUKOS ASSOCIATES

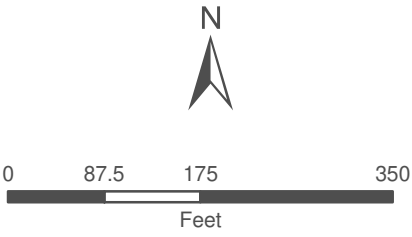
Exhibit 3





Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: July 15, 2020

- Project Site
- 126 - Bosanko Clay, 9 to 15 Percent Slopes
- 127 - Bosanko Clay, 15 to 30 Percent Slopes
- 128 - Bosanko Clay, 30 to 50 Percent Slopes
- 129 - Bosanko-Balcom Complex, 15 to 30 Percent Slopes
- 134 - Calleguas Clay Loam, 50 to 75 Percent Slopes, Eroded
- 141 - Cieneba Sandy Loam, 15 to 30 Percent Slopes



1 inch = 175 feet

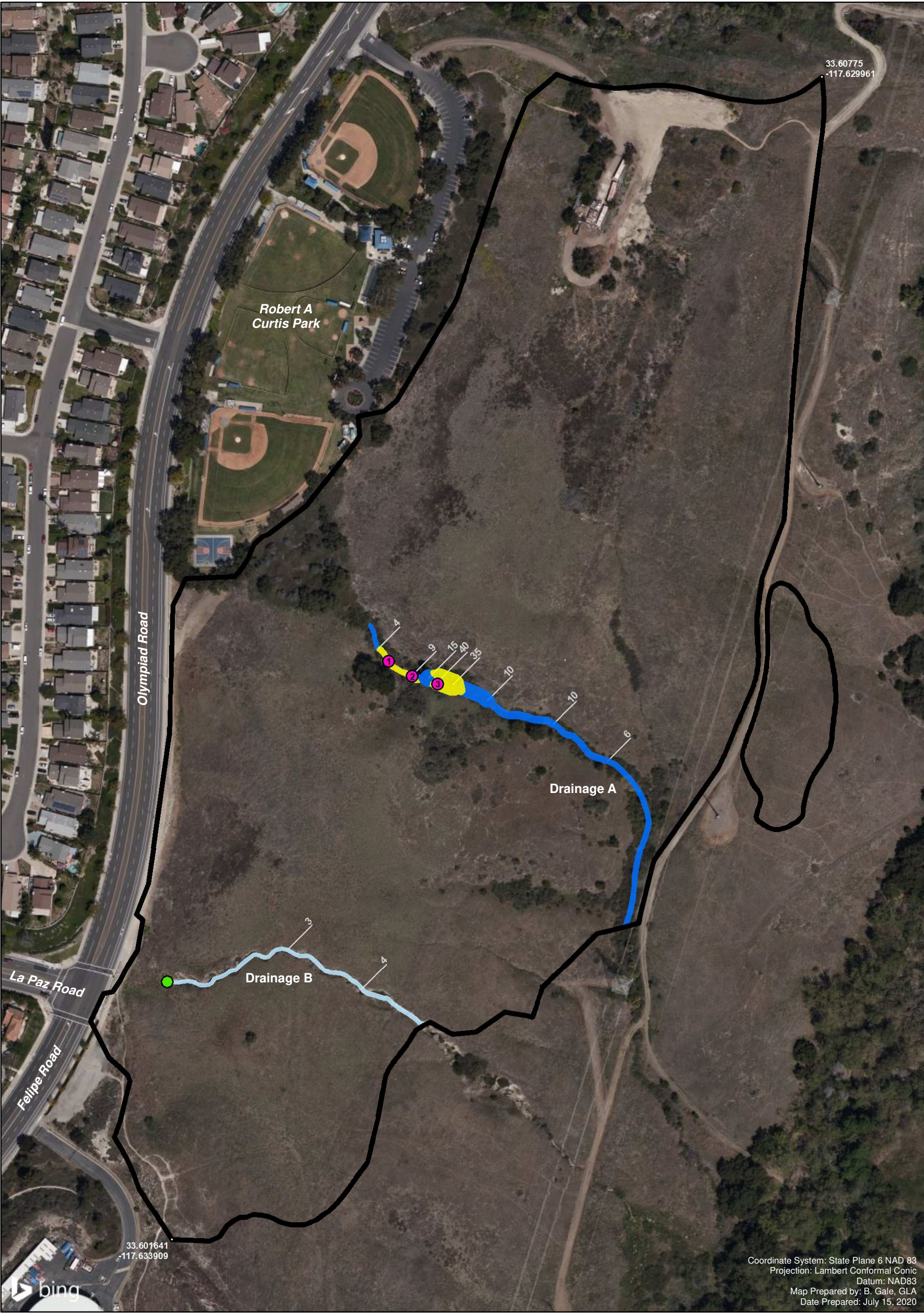
LOWER CURTIS PARK EXPANSION

Soils Map

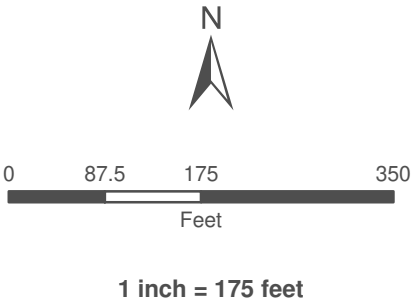
GLENN LUKOS ASSOCIATES

Exhibit 4





- Project Site
- Wetland
- Non-Wetland Waters
- Non-Jurisdictional Drainage
- Width of Drainage in Feet
- Data Pit
- Culvert



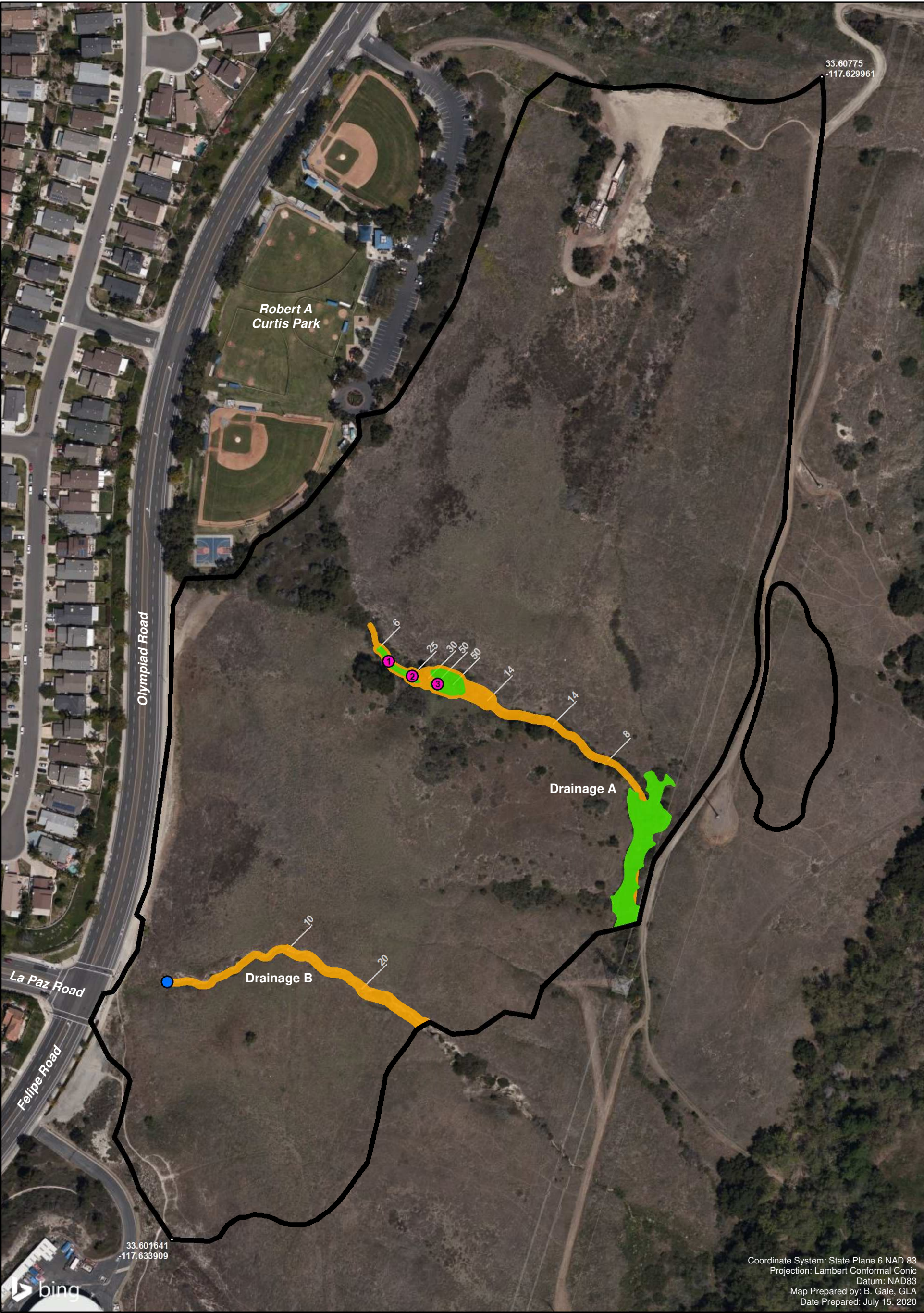
LOWER CURTIS PARK EXPANSION

Corps Jurisdictional Delineation Map

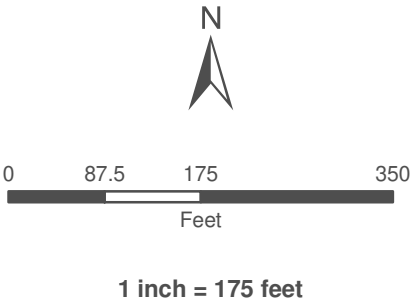
GLENN LUKOS ASSOCIATES

Exhibit 5A





- Project Site
- Riparian
- Non-Riparian Streambed
- Width of Drainage in Feet
- Data Pit
- Culvert



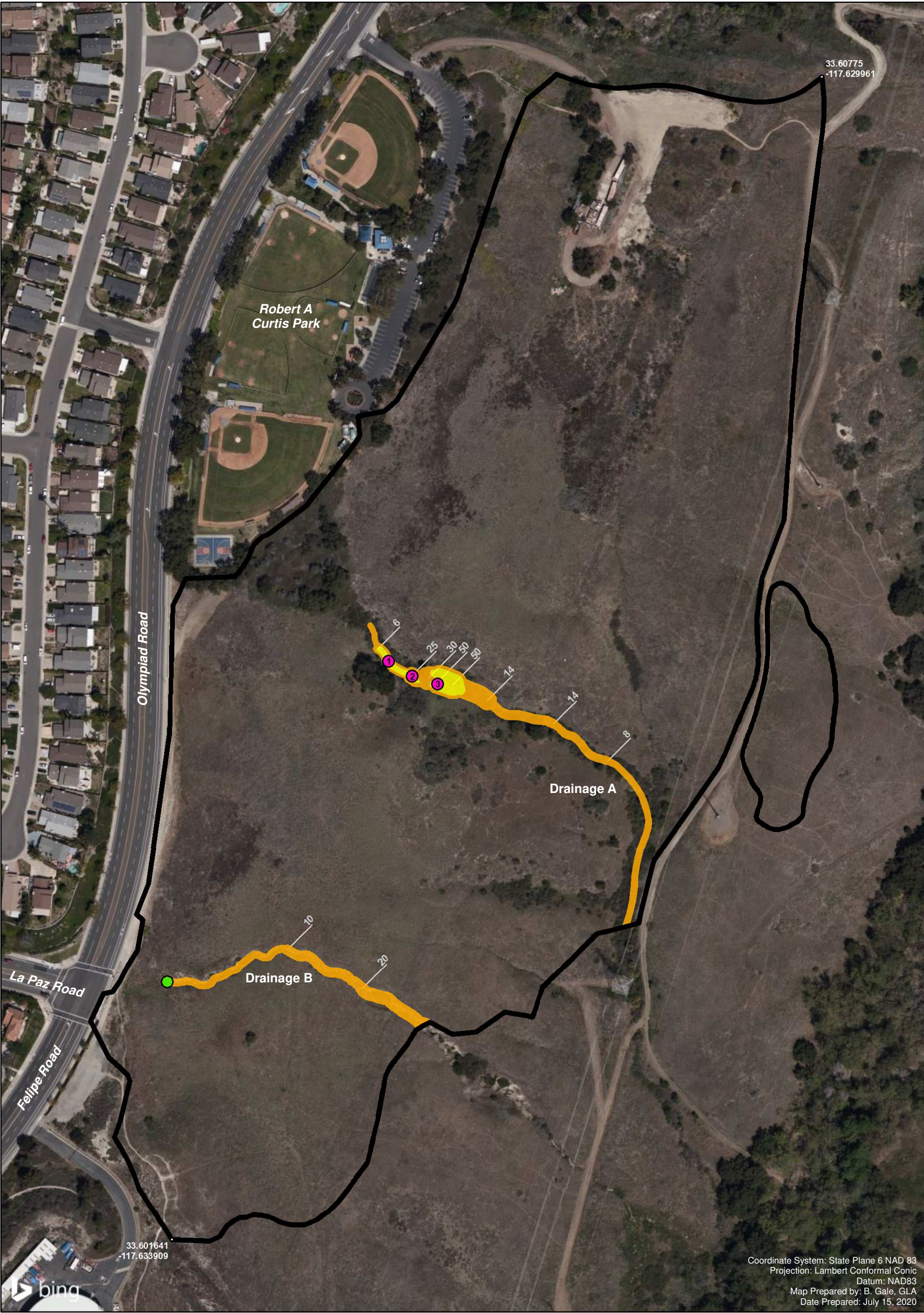
LOWER CURTIS PARK EXPANSION

CDFW Jurisdictional Delineation Map

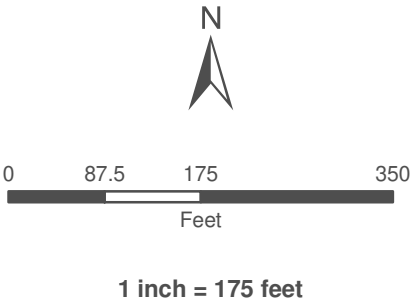
GLENN LUKOS ASSOCIATES

Exhibit 5B





- Project Site
- Wetland
- Non-Riparian Streambed
- Width of Drainage in Feet
- Data Pit
- Culvert



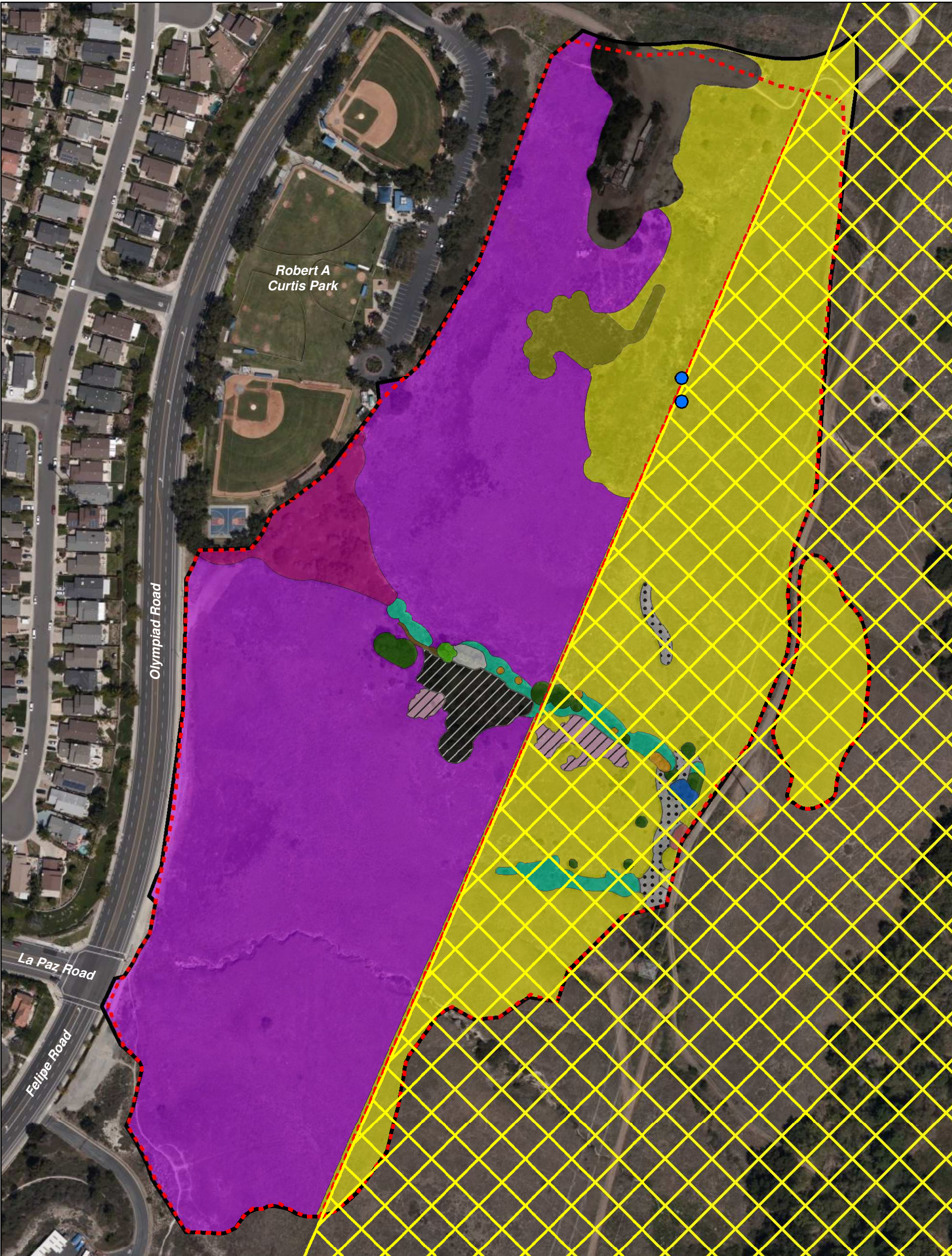
**LOWER CURTIS
PARK EXPANSION**

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

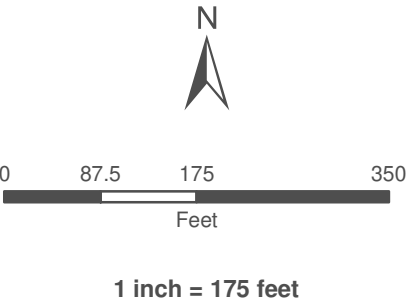
Exhibit 5C





- | | |
|---|--|
| Project Site | Non-Native Grassland/Artichoke Thistle |
| Grading Limits | Oak |
| Anemopsis | Pampas |
| Cattails | Purple Needlegrass Grassland |
| Coyote Bush Scrub | Upland Mustards |
| Elderberry | Willow |
| Goldenbush Scrub | Ornamental |
| Lemonade Berry | Mixed Scrub/Disturbed |
| Mexican Fan Palm | Disturbed |
| Mulefat Scrub | |
| California Gnatcatcher Critical Habitat | |
| Coastal California Gnatcatcher | |

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: July 15, 2020



**LOWER CURTIS
PARK EXPANSION**

Biological Resources Impact Map

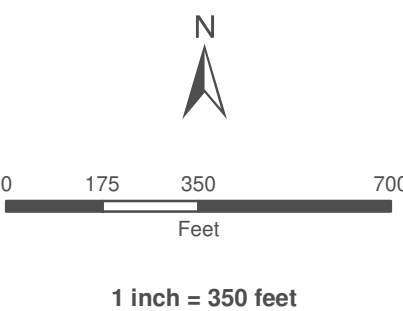
GLENN LUKOS ASSOCIATES

Exhibit 6





- | | | | |
|--|---|--|---------------------------------|
| | City Retained | | Mexican Fan Palm |
| | Mitigation Land | | Mulefat Scrub |
| | California Gnatcatcher Critical Habitat | | Oak |
| | Ash | | Ornamental |
| | Castor | | Pampas |
| | Coffee Berry | | Scrub |
| | Coyote Bush Scrub | | Willow |
| | Grassland | | Disturbed/Potential Restoration |
| | Lemonade Berry | | Developed |



**LOWER CURTIS
PARK EXPANSION**

Mitigation Site Map

GLENN LUKOS ASSOCIATES

Exhibit 7



APPENDIX A: FLORAL COMPENDIUM

The floral compendium lists species identified on the project site. Taxonomy follows the Jepson Manual (Baldwin et al 2012) and, for sensitive species, the California Native Plant Society's Rare Plant Inventory (Tibor 2001). Common plant names are taken from Hickman (1993), Munz (1974), and Roberts et al (2004). An asterisk (*) denotes a non-native species.

Scientific Name

Common Name

MAGNOLIOPHYTA DICOTYLEDONS

FLOWERING PLANTS DICOTS

AMARANTHACEAE

Amaranthus blitoides

Amaranth Family

prostrate pigweed

ADOXACEAE

Sambucus nigra ssp. caerulea

Elderberry Family

blue elderberry

ANACARDIACEAE

Malosma laurina

**Schinus molle*

**Schinus terebinthifolius*

Sumac Family

laurel sumac

Peruvian pepper tree

Brazilian pepper tree

APIACEAE

**Conium maculatum*

**Foeniculum vulgare*

Carrot Family

poison hemlock

sweet fennel

ASTERACEAE

Artemisia californica

Baccharis pilularis

Baccharis salicifolia

**Centaurea melitensis*

Conyza Canadensis

Cynara cardunculus

Encelia californica

Heterotheca grandiflora

Helianthus annuus

**Helminthotheca echoides*

Isocoma menziesii

**Lactuca serriola*

**Pulicaria paludosa*

Psuedognaphalium californicum

**Sonchus oleraceus*

Sunflower Family

California sagebrush

coyote brush

mule fat

totalote

common horseweed

artichoke thistle

California bush sunflower

telegraph weed

common sunflower

bristly ox-tongue

Menzie's goldenbush

prickly lettuce

Spanish false fleabane

California everlasting

common sow-thistle

BORAGINACEAE*Amsinckia intermedia**Heliotropium curassavicum***Borage Family**

common fiddleneck

heliotrope

BRASSICACEAE**Brassica nigra***Hirschfeldia incana***Sisymbrium irio***Mustard Family**

black mustard

summer mustard

London rocket

CACTACEAE*Opuntia littoralis***Cactus Family**

prickly pear

CHENOPODIACEAE**Chenopodium album***Salsola tragus***Goosefoot Family**

lamb's quarters

Russian thistle

CRASSULACEAE*Dudleya lanceolata***Stonecrop Family**

lanceleaf liveforever

EUPHORBIACEAE*Euphorbia albomarginata**Croton californicus***Euphorbia maculata***Ricinus communis***Spurge Family**

rattlesnake sandmat

California croton

spotted spurge

castor bean

FABACEAE**Melilotus indicus***Acacia redolens***Legume Family**

Annual yellow sweetclover

Desert carpet

FAGACEAE*Quercus agrifolia***Oak Family**

Coast live oak

GERANIACEAE**Erodium botrys***Erodium cicutarium***Erodium moschatum***Geranium Family**

broad leaf filaree

red-stemmed filaree

white-stemmed filaree

LAMIACEAE*Salvia apiana**Salvia mellifera***Mint Family**

white sage

black sage

MALVACEAE**Malva parviflora***Mallow Family**

cheeseweed

MYRTACEAE

**Eucalyptus sp.*

OLEACEAE

Fraxinus uhdei

PLATANACEAE

Platanus racemosa

POLYGONACEAE

Eriogonum elongatum

Eriogonum fasciculatum

SAURACEAE

Anemopsis californica

SALICACEAE

Salix goodingii

Salix lasiolepis

SCROPHULARIACEAE

Mimulus auranticus

SIMAROUBACEAE

**Ailanthus altissima*

SOLANACEAE

Datura wrightii

**Nicotiana glauca*

Solanum americanum

TYPHACEAE

Typha domingensis

URTICACEAE

**Urtica urens*

**MAGNOLIOPHYTA
MONOCOTYLEDONES****AREACEAE**

**Washingtonia robusta*

Myrtle Family

eucalyptus

Olive Family

Shamel ash

Myrtle Family

western sycamore

Buckwheat Family

longstem buckwheat

California buckwheat

Lizard Tail Family

Yerba mansa

Willow Family

black willow

arroyo willow

Figwort Family

sticky monkey flower

Quassia Family

tree of heaven

Nightshade Family

Jimsonweed

tree tobacco

white nightshade

Cattail Family

southern cattail

Nettle Family

dwarf nettle

**FLOWERING PLANTS
MONOCOTS****Palm Family**

Mexican fan palm

POACEAE

**Arundo donax*

**Avena barbata*

**Bromus diandrus*

Bromus hordeaceus

**Bromus madritensis* ssp. *rubens*

**Hordeum murinum* ssp. *leporinum*

**Pennisetum setaceum*

**Stipa mileaceum*

Stipa pulchra

Grass Family

giant reed

slender oat

ripgut brome

soft chess

red brome

foxtail barley

fountain grass

smilo grass

purple needlegrass

APPENDIX B: FAUNAL COMPENDIA

Vertebrates identified in the field by sight, calls, tracks, scat, or other signs are cited according to the nomenclature of Collins (1997) for amphibians and reptiles, AOU (1998) for birds, and Jones et al. (1992) for mammals.

LEGEND

Presence of animals noted by direct sighting, call identification or observation of tracks, scat or other signs

- † Denotes species not observed but expected to occur on site
- * Denotes non-native species

TERRESTRIAL VERTEBRATES

REPTILES

IGUANIDAE - IGUANID LIZARDS

Sceloporus occidentalis
western fence lizard
Uta stansburiana
side-blotched lizard

COLUBRIDAE - COLUBRID SNAKES

- † *Pituophis melanoleucus*
gopher snake
- † *Lampropeltis getulus*
common kingsnake

BIRDS

PHASIANIDAE - PHEASANTS & QUAILS

Callipepla californica
California quail

CATHARTIDAE - NEW WORLD VULTURES

Cathartes aura
turkey vulture

ACCIPITRIDAE - HAWKS

Accipiter cooperi
Cooper's hawk
Buteo jamaicensis
red-tailed hawk

CHARADRIIDAE - SHOREBIRDS

Charadrius vociferus
killdeer

APODIDAE - PIGEONS & DOVES

Zenaida macroura
mourning dove

CUCULIDAE - CUCKOOS

Geococcyx californianus
greater roadrunner

COLUMBIDAE - SWIFTS

Aeronautes saxatalis
White-throated swift

TROCHILIDAE - HUMMINGBIRDS

Calypte anna
Anna's hummingbird
Selasphorus sasin
Allen's hummingbird

PICIDAE - WOODPECKERS

Picoides nuttallii
Nuttall's woodpecker
Melanerpes formicivorus
acorn woodpecker

FALCONIDAE - FALCONS

Falco sparverius
American kestrel

TYRANNIDAE - TYRANT FLYCATCHERS

Empidonax difficilis
pacific-slope flycatcher

- † *Sayornis nigricans*
 black phoebe
 Sayornis saya
 Say's phoebe
 Myiarchus cinerascens
 ash-throated flycatcher
 Tyrannus verticalis
 Western kingbird

CORVIDAE - JAYS & CROWS

- Aphelocoma californica*
 Western scrub-jay
 Corvus brachyrhynchos
 American crow
 Corvus corax
 common raven

HIRUNDINIDAE - SWALLOWS

- Hirundo rustica*
 barn swallow
 Hirundo pyrrhonota
 cliff swallow
 Stelgidopteryx serripennis
 northern rough-winged swallow

AEGITHALIDAE - BUSHTITS

- Psaltiriparus minimus*
 bushtit

TROGLODYTIDAE - WRENS

- Thryomanes bewickii*
 Bewick's wren
 Troglodytes aedon
 house wren

POLIOPTILIDAE - GNATCATCHERS

- Polioptila caerulea*
 blue-gray gnatcatcher
 Polioptila californica
 California gnatcatcher

MUSCICAPIDAE - KINGLETS, GNATCATCHERS, THRUSHES & BABBLERS

- Chamaea fasciata*
 wrentit

TURDIDAE - THRUSHES

Sialia mexicana
Western bluebird

MIMIDAE - THRASHERS

Toxostoma redivivum
California thrasher
Mimus polyglottos
Northern mockingbird

STURNIDAE - STARLINGS

* *Sturnus vulgaris*
European starling

PTILIOGONATIDAE

Phainopepla nitens
Phainopepla

PARULIDAE - WOOD WARBLERS

Oreothlypis celata
orange crowned warbler

Geothlypis trichas
common yellowthroat

Setophaga coronata
yellow-rumped warbler

Cardellina pusilla
Wilson's warbler

EMBERIZIDAE – SPARROWS, BUNTINGS, WARBLERS, & RELATIVES

Melospiza crissalis
California towhee

Pipilo maculatus
spotted towhee

Melospiza melodia
song sparrow

Zonotrichia leucophrys
white-crowned sparrow

CARDINALIDAE - TANAGERS AND CARDINALS

Pheucticus melanocephalus
black-headed grosbeak

ICTERIDAE - BLACKBIRDS AND ORIOLES

- † *Euphagus cyanocephalus*
Brewer's blackbird
- Molothrus ater*
brown headed cowbird
- Icterus cucullatus*
hooded oriole
- Icterus bullockii*
Bullock's oriole

FRINGILLIDAE - FINCHES

- Carpodacus mexicanus*
house finch
- Carduelis psaltria*
lesser goldfinch

PASSERIDAE - OLD WORLD SPARROWS

- *† *Passer domesticus*
house sparrow

MAMMALS

DIDELPHIDAE - NEW WORLD OPOSSUMS

- †* *Didelphis virginiana*
Virginia opossum

VESPERTILIONIDAE - EVENING BATS

- † *Myotis spp.*
myotis bat

GEOMYIDAE - POCKET GOPHERS

- † *Thomomys bottae*
Botta's pocket gopher

MURIDAE - MICE, RATS, AND VOLES

- † *Peromyscus maniculatus*
deer mouse

PROCYONIDAE - RACCOONS

- † *Procyon lotor*
raccoon

CERVIDAE - DEER

Odocoileus hemionus
mule Deer

CANIDAE - CANINES

Canis latrans
coyote

LEPORIDAE - RABBITS AND HARES

Sylvilagus bachmani
brush rabbit

FELIDAE - WILD CATS

Lynx rufus
bobcat

CRICETIDAE - NEW WORLD MICE AND RATS

Neotoma fuscipes
dusky woodrat

SCIURIDAE - SQUIRRELS

Otospermophilus beecheyi
ground squirrel