BIOLOGICAL TECHNICAL REPORT

FOR THE

MORENO VALLEY LOGISTICS CENTER

MORENO VALLEY
RIVERSIDE COUNTY, CALIFORNIA

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May 12, 2015
[Revised March 17, 2016]

INFORMATION SUMMARY

A.	**Report Date:**	May 12, 2015 [Revised March 17, 2016]
B.	**Report Title:**	Biological Technical Report for the Moreno Valley Logistics Center Project
C.	**Project Site Location:**	Moreno Valley, Riverside County, California
D.	**Applicant:**	Prologis L.P. 2817 E. Cedar Street Suite 200 Ontario, California 91761 Contact: Scott Mulkay Phone: (909) 673-8730
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F. Report Summary:

This document provides the results of general and focused biological surveys for the 89.4-acre Moreno Valley Logistics Center Project ("Project site") located in the City of Moreno Valley, Riverside County, California. The Project also includes 0.34-acre of offsite impacts associated with the installation of storm drain outfall structures along the adjacent Perris Valley Storm Drain. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

The Project site is located immediately east of March Air Reserve Base (MARB) in Moreno Valley and historically has been disturbed regularly due to agricultural operations and discing practices. Site topography is flat and the Perris Valley Storm Drain bisects portions of the property.

The Project site is located within the Reche Canyon/Badlands Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area. As such, the Project is not subject to the MSHCP Habitat Evaluation and Negotiation Strategy (HANS) or Joint Project Review (JPR) processes. The Project site located within the burrowing owl (*Athene cunicularia*) survey area, but it not

located within the Narrow Endemic Plant Species Survey Area (NEPSSA), Criteria Area Plant Species Survey Area (CAPSSA), amphibian, or mammal survey areas.

Pursuant to MSHCP requirements, focused surveys were conducted for the burrowing owl following MSHCP protocols. No burrowing owls were detected onsite; however, the site has a potential to support burrowing owls in the future. Pursuant to MSHCP requirements, and as a Project avoidance measure, pre-construction burrowing owl surveys will be conducted within 30 days of site disturbance associated with Project grading. If burrowing owls are detected during the pre-construction surveys, then owls will be relocated from the site following accepted protocols.

The proposed Project will result in the loss of habitat with the potential to support several special-status animal species, including listed and non-listed species. One listed species, Stephens' kangaroo rat (*Dipodomys stephensi*) [SKR] has the potential to occur on site. The loss of habitat for SKR is potentially significant, both individually and cumulatively. However, the Project site is located within the SKR Fee Assessment Area as established by the SKR Habitat Conservation Plan (SKR HCP). Coverage for impacts to SKR would be provided to the proposed Project through payment of the SKR fee. In addition, the proposed Project will impact habitat with the potential to support non-listed, special-status species, all of which are designated as MSHCP Covered Species. Potential impacts to these species would be less than significant, both individually and cumulatively, as a result of a low level of sensitivity, marginal quality of habitat onsite, and/or limited impacts by the proposed Project. The proposed Project will not result in potentially significant impacts, either individually or cumulatively, to MSHCP "non-Covered Species". The Project will not impact special-status plants.

The Project has the potential to impact nesting birds if vegetation is removed during the nesting season (February 1 to August 31). Impacts to nesting birds are prohibited by the MBTA and California Fish and Game Code. To avoid impacts to nesting birds, a nesting bird survey will be performed prior to any vegetation removal if conducted during the nesting season.

The proposed Project will impact jurisdictional waters associated with the PVSD due to the installation of the offsite outfall structures. The Project will permanently impact 0.002 acre of U.S. Army Corps of Engineers (Corps) and Regional Water Quality Control Board (Regional Board) jurisdiction, and 0.02 acre of California Department of Fish and Wildlife (CDFW) jurisdiction, none of which consists of jurisdictional wetlands/riparian habitat. In addition, the Project will temporarily impact 0.09 acre of Corps and Regional Board jurisdiction and 0.18 acre of CDFW jurisdiction, none of which consists of jurisdictional wetlands/riparian habitat. The impacts to jurisdictional waters would be less than significant due to the lack of riparian/wetland habitat, the negligible function to biological resources, the lack of local significance, and the small amount of impact.

The Project will permanently impact approximately 0.02 acre of unvegetated riverine areas associated with the PVSD channel due to the construction of the storm drain outfall structures, and will temporarily impact 0.18 acre of the channel during construction. Impacts to the PVSD channel have been minimized to the maximum extent practicable through the minimum number of outfall structures required, and the minimum impact footprint needed for each structure.

Furthermore, construction of the outfall structures will not impact any riparian habitat. Due to the minimal footprint associated with each structure, and with the lack of impact to riparian resources, construction of the outfall structures would not adversely affect riparian/riverine functions and values as it pertains to MSHCP Covered Species. In addition, the Project would not have any potential to directly or cumulatively impact biological functions and values as it relates to downstream resources. Since the Project will not result in a loss of functions and values as it pertains to MSHCP Covered Species within the Project footprint or within downstream areas, the Determination of Biologically Equivalent or Superior Preservation (DBESP) requirements do not apply to the Project.

The proposed Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to the Project's relationship to reserve assembly, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures).

G. Individuals Conducting Fieldwork:

Jeff Ahrens
Martin Rasnick
Amy Walters

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1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general and focused biological surveys for the 89.4-acre Moreno Valley Logistics Center Project (the Project) located in City of Moreno Valley, Riverside County, California. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

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

The field study focused on a number of primary objectives that would comply with CEQA requirements, including (1) general reconnaissance survey and vegetation mapping; (2) general biological surveys; (3) habitat assessments for special-status plant species (including species with applicable MSHCP survey requirements); (4) habitat assessments for special-status wildlife species (including species with applicable MSHCP survey requirements); (5) focused burrowing owl surveys; (6) assessments for MSHCP riparian/riverine areas and vernal pools; and (7) assessments for areas subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act, the Regional Water Quality Control Board (Regional Board) pursuant to Section 401 of the Clean Water Act, and CDFW pursuant to Division 2, Chapter 6, Section 1600–1616 of the California Fish and Game Code. Observations of all plant and wildlife species were recorded during the general biological surveys and are included as Appendix A (Floral Compendium) and Appendix B (Faunal Compendium).

1.2 Project Location

The Project site comprises 89.48 acres in the Moreno Valley, Riverside County, California [Exhibit 1 – Regional Map] and is located within Section 30 of Township 4 South, Range 3 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Perris (dated 1967 and photorevised in 1979) and Section 30 of Township 4 South, Range 3 West of the Sunnymead quadrangle map (dated 1967 and photorevised in 1980) [Exhibit 2 – Vicinity Map]. The Project site is bordered by Krameria Avenue to the north, Indian Street to the east, Cardinal Avenue and Perris Valley Storm Drain to the south, and Heacock Street to the west and is bisected by the Perris Valley Storm Drain.

The Project is bounded by undeveloped land to the north, residential land to the east, commerical development to the south, and Heacock Street and March Air Reserve Base to the west. The Project site supports one blue-line stream, the Perris Valley Storm Drain (as depicted on the U.S. Geological Survey (USGS) topographic map Sunnymead, California [dated 1967 and photorevised in 1980]) [Exhibit 2]. The Project is located within or a portion of Assessor's Parcel Numbers (APN) 316-100-028, 030, 048, 051, and 052.

1.3 Project Description

The proposed Project involves the development of an approximately 89.4 gross-acre property located at the southwest corner of the intersection of Krameria Avenue and Indian Street in the City of Moreno Valley, Riverside County, California. The proposed Project consists of an application for a Specific Plan Amendment (P15-036), Tentative Parcel Map (PA15-0018), and four individual Building Plot Plan applications (PA15-0014, PA15-0015, PA15-0016, and PA15-0017) to construct and operate a logistics center with four buildings providing 1,737,518 square feet (s.f.) of total building space. Associated improvements to the property would include loading docks, surface parking areas (passenger car parking and truck trailer parking), drive aisles, roadway improvements, utility infrastructure (including off-site storm water drainage improvements within the Perris Valley Storm Drain Channel), landscaping, exterior lighting, signage, and water quality detention basins. The Project also includes public street vacations and street dedications [Exhibit 3 – Site Plan].

1.4 Existing Conditions

The Project Site is comprised of former agricultural land that is highly disturbed and supports ruderal vegetation. Surrounding land uses include March Air Reserve Base, commercial and residential development, and undeveloped land. The Perris Valley Storm Drain bisects portions of the Project.

1.5 Relationship of the Project to the MSHCP

1.5.1 MSHCP Background

The Western Riverside County MSHCP is a comprehensive habitat conservation/planning program for Western Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to special-status species and associated native habitats.

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and CDFW, the MSHCP designates 146 special-status animal and plant species as Covered Species, of which the majority have no project-specific survey/conservation requirements. The MSHCP provides mitigation for project-specific impacts to these species for Projects that are compliant/consistent with MSHCP requirements, such that the impacts are reduced to below a level of significance pursuant to CEQA.

The Covered Species that are not yet adequately conserved have additional requirements in order for these species to ultimately be considered "adequately conserved". A number of these species have survey requirements based on a project's occurrence within a designated MSHCP survey area and/or based on the presence of suitable habitat. These include Narrow Endemic Plant Species (MSHCP *Volume I, Section 6.1.3*), as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species (MSHCP *Volume I, Section 6.3.2*) identified by the Criteria Area Plant Species Survey Areas (CAPSSA); animals species (burrowing owl, mammals, amphibians) identified by survey areas (MSHCP *Volume I, Section 6.3.2*); and species associated with riparian/riverine areas and vernal pool habitats, i.e., least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, and three species of listed fairy shrimp (MSHCP *Volume I, Section 6.1.2*). An additional 28 species (MSHCP *Volume I, Table 9.3*) not yet adequately conserved have species-specific objectives in order for the species to become adequately conserved. However, these species do not have project-specific survey requirements.

The goal of the MSHCP is to have a total Conservation Area in excess of 500,000 acres, including approximately 347,000 acres on existing Public/Quasi-Public (PQP) Lands, and approximately 153,000 acres of Additional Reserve Lands targeted within the MSHCP Criteria Area. The MSHCP is divided into 16 separate Area Plans, each with its own conservation goals and objectives. Within each Area Plan, the Criteria Area is divided into Subunits, and further divided into Criteria Cells and Cell Groups (a group of criteria cells). Each Cell Group and ungrouped, independent Cell has designated "criteria" for the purpose of targeting additional conservation lands for acquisition. Projects located within the Criteria Area are subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process to determine if lands are targeted for inclusion in the MSHCP Reserve. In addition, all Projects located within the Criteria Area are subject to the Joint Project Review (JPR) process, where the Project is reviewed by the Regional Conservation Authority (RCA) to determine overall compliance/consistency with the biological requirements of the MSHCP.

1.6.2 Relationship of the Project Site to the MSHCP

The Project site is located within the Reche Canyon/Badlands Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area [Exhibit 4 – MSHCP Overlay Map]. The Project site is located within the MSHCP Burrowing Owl Survey Area; however, the Project site is not located within the Narrow Endemic Plant Species Survey Area (NEPSSA), the Criteria Area Plant Species Survey Area (CAPSSA), or the MSHCP Mammal or Amphibian Survey Areas. The Perris Valley Storm Drain (PVSD), which is located adjacent to the Project site, is designated as Public/Quasi-Public (PQP) Conserved Lands. The proposed Project includes the construction of five storm drain outfall structures within the PVSD.

Within the designated Survey Areas, the MSHCP requires habitat assessments, and focused surveys within areas of suitable habitat. For locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species have been met throughout the MSHCP. Findings of equivalency shall

be made demonstrating that the 90-percent standard has been met, if applicable. If equivalency findings cannot be demonstrated, then "biologically equivalent or superior preservation" must be provided.

2.0 METHODOLOGY

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

- Performance of general biological surveys and vegetation mapping for the Project Site; and
- Performance of habitat assessments, and site-specific biological surveys to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA.

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDB [CDFW 2016], CNPS 8th edition online inventory (CNPS 2010), Natural Resource Conservation Service (NRCS) soil data, MSHCP species and habitat maps, MSHCP sensitive soil maps, other pertinent literature, and knowledge of the region. Site-specific general surveys within the Project Site were conducted on foot in the proposed development areas for each target plant or animal species identified below.

2.1 Summary of Surveys

GLA conducted biological studies in order to identify and analyze actual or potential impacts to biological resources associated with the Project site. Observations of all plant and wildlife species were recorded during each of the above mentioned survey efforts [Appendix A: Floral Compendium and Appendix B: Faunal Compendium]. The studies conducted include the following:

- Performance of general biological surveys and vegetation mapping;
- Performance of site-specific habitat assessments and biological surveys to evaluate the potential presence/absence of special-status species (or potentially suitable habitat) to the satisfaction of CEQA, federal and state regulations, and MSHCP requirements;
- Performance of focused burrowing owl surveys; and
- Delineation of aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and CDFW, as well as MSHCP riparian/riverine resources.

Table 2-1 provides a summary list of survey dates, survey types and personnel.

Table 2-1. Summary of Biological Surveys for the Project Site.

Survey Type	Survey Dates	Biologists
Habitat Assessments and General Biological Surveys	3/12, 3/16, 2015	JA
Focused Burrow Mapping and Focused Burrowing Owl Surveys	3/12, 3/16, 3/26, 4/1, and 4/9, 2015	JA
Jurisdictional Delineation	1/15/2015	MR & AW
Vegetation Mapping	3/12/2015	JA

JA = Jeff Ahrens, MR = Martin Rasnick, AW = Amy Walters

Individual plants and wildlife species are evaluated in this report based on their "special-status." For the purpose of this report, plants were considered "special-status" based on one or more of the following criteria:

- Listing through the Federal and/or State Endangered Species Act (ESA);
- Occurrence in the CNPS Rare Plant Inventory (Rank 1A/1B, 2A/2B, 3, or 4); and/or
- Occurrence in the CNDDB inventory.

Wildlife species were considered "special-status" based on one or more of the following criteria:

- Listing through the Federal and/or State ESA; and
- Designation by the State as a Species of Special Concern (SSC) or California Fully Protected (CFP) species.

Vegetation communities and habitats were considered "special-status" based on one or more of the following criteria:

- Global (G) and/or State (S) ranking of category 3 or less based on CDFW (see Section 3.2.2 below for further explanation); and
- Riparian habitat.

2.2 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the Project site, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur within the Project Site; (3) general field reconnaissance surveys; (4) vegetation mapping; and (5) habitat assessments and focused surveys for special-status plants (including those with MSHCP requirements).

2.2.1 Literature Search

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

- CNPS *Inventory of Rare and Endangered Plants of California* (eighth edition). Rare Plant Advisory Committee, David Tibor, Convening Editor, California Native Plant Society. Sacramento, CA x + 388pp; (CNPS 2010); and

- CNDDB for the USGS 7.5' quadrangles: Sunnymead, Perris, Riverside East, and Steele Peak (CNDDB 2016).

2.2.2 Vegetation Mapping

Vegetation communities within the Project site were mapped according to the List of Vegetation Alliances and Associations (or Natural Communities List). The list is based on A Manual of California Vegetation, Second Edition or MCVII, which is the California expression of the National Vegetation Classification. Where necessary, deviations were made when areas did not fit into exact habitat descriptions. These vegetation communities were named based on the dominant plant species present. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph. A vegetation map is included as Exhibit 5. Representative site photographs are included as Exhibit 6.

2.2.3 Special-Status Plant Species and Habitats Evaluated for the Project Site

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

Based on this information, vegetation profiles and a list of target sensitive plant species and habitats that could occur within the Project site were developed and incorporated into a mapping and survey program to achieve the following goals: (1) characterize the vegetation associations and land use; (2) prepare a detailed floristic compendium; (3) identify the potential for any special status plants that may occur within the Project Site; and (4) prepare a map showing the distribution of any sensitive botanical resources associated with the Project site, if applicable.

The Project site is not located within the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA) or Criteria Area Plant Species Survey Area (CAPSSA). As such, focused plant surveys are not required pursuant to the MSHCP.

2.2.5 Botanical Surveys

GLA biologist Jeff Ahrens visited the site on March 12, 16, and 26, and April 1 and 9, 2015 to conduct habitat assessments, general biological surveys and focused burrowing owl surveys. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). As applicable, surveys were conducted at appropriate times based on precipitation and flowering periods. An aerial photograph, a soil map, 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 (2010) 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), and Munz (1974).

2.3 Wildlife Resources

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

2.3.1 General Surveys

Birds

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

Mammals

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

Reptiles and Amphibians

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

2.3.2 Special-Status Animal Species Evaluated for the Project Site

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

2.3.3 Habitat Assessment for Special Status Animal Species

GLA biologist Jeff Ahrens conducted habitat assessments for special-status animal species on March 12 and 16, 2015. An aerial photograph, soil map and/or topographic map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the Project Site.

2.3.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

The Project site is located within the MSHCP survey area for the burrowing owl (*Athene cunicularia*). GLA biologist Jeff Ahrens conducted focused surveys for the burrowing owl for all suitable habitat areas within the Project site and offsite impact areas along the Perris Valley Storm Drain. Surveys were conducted in accordance with survey guidelines described in the 2006 MSHCP Burrowing Owl Survey Instructions. The guidelines stipulate that four focused survey visits should be conducted between March 1 and August 31. Within areas of suitable habitat, the MSHCP first requires a focused burrow survey to map all suitable burrows. The focused burrow survey was conducted on March 12, 2015. Focused burrowing owl surveys were conducted on March 16 and 26, and April 1 and 9, 2015. As recommended by the survey guidelines, the survey visits were generally conducted from one hour prior to sunrise to two hours after sunrise. Weather conditions during the surveys were conducive to a high level of bird activity.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 8 identifies the burrowing owl survey areas at the Project site. Transects were spaced between 7 m and 20 m apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 100 m along transects, the survey area was scanned for burrowing owls using binoculars. All

suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. Exhibit 8 provides locations of suitable burrows mapped during the transect surveys. Table 2-2 summarizes the burrowing owl survey visits. The results of the burrowing owl surveys are documented in Section 4.0 of this report.

Table 2-2. Summary of Burrowing Owl Surveys

Survey Date	Survey Type	Biologist	Start/End Time	Start/End Temperature	Start/End Wind Speed (mph)	Cloud Cover (%)
3/12/15	Burrow Mapping	JA	0800-1210	56/73	1	0/0
3/16/15	Focused Survey	JA	0700-1040	51/77	1/1	0/0
3/26/15	Focused Survey	JA	0705-1020	58/80	1/2	0/0
4/1/15	Focused Survey	JA	0700-1030	52/63	1/3	100/100
4/9/15	Focused Survey	JA	0650-1015	42/68	2/4	30/40

JA = Jeff Ahrens

2.4 Jurisdictional Delineation

Prior to beginning the field delineation a 200-scale color aerial photograph and the previously cited USGS topographic maps were examined to determine the locations of potential areas of Corps/CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Potential wetland habitats at the subject site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[1] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement)[2]. The presence of an Ordinary High Water Mark (OHWM) was determined using the 2008 Field Guide to Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States[3] in conjunction with the Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.[4] While in the field the limits of the OHWM,

[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

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

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

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

wetlands, and CDFW jurisdiction were recorded using GPS technology and/or on copies of the aerial photography. Other data were recorded onto the appropriate datasheets. The results of the Jurisdictional Delineation are depicted on Exhibit 9.

2.5 MSHCP Riparian/Riverine Areas and Vernal Pools

GLA surveyed the site for riparian/riverine areas and vernal pool/seasonal pool habitat. *Volume I, Section 6.1.2* of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSCHP Plan Area. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSCHP Conservation Area are maintained. The MSHCP requires that as projects are proposed within the overall Plan Area, the effect of those projects on riparian/riverine areas and vernal pools must be addressed.

The MSHCP defines riparian/riverine areas as *lands which contain Habitat dominated by trees, shrubs, persistent emergent mosses and lichens, which occur close to or which depend upon soils moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.*

The MSHCP defines vernal pools as *seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indictors of hydrology and/or vegetation during the drier portion of the growing season.*

With the exception of wetlands created for the purpose of providing wetlands Habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.

3.0 REGULATORY SETTING

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

3.1 State and/or Federally Listed Plants or Animals

3.1.1 State of California Endangered Species Act

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

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

3.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any

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

3.1.3 State and Federal Take Authorizations for Listed Species

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

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.
- Sections 2090-2097 of the CESA require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

3.1.4 Take Authorizations Pursuant to the MSHCP

The Western Riverside County MSHCP was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the Federal and State Wildlife Agencies (USFWS and CDFW) and participating entities. The MSHCP is a comprehensive habitat conservation-planning program for western Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the MSHCP, and to provide for an overall

Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species.

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), the MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through project participation with the MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA. As noted above, project-specific survey requirements exist for species designated as "Covered Species not yet adequately conserved". These include Narrow Endemic Plant Species, as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species identified by the Criteria Area Species Survey Areas (CASSA); animal species as identified by survey area; and plant and animal species associated with riparian/riverine areas and vernal pool habitats (*Volume I, Section 6.1.2* of the MSHCP document).

3.1.5 Take Authorization Pursuant to the SKR HCP

The Stephens' kangaroo rat (*Dipodomys stephensi*, SKR) Habitat Conservation Plan (SKR HCP) was adopted in 1996 to provide take authorization for impacts to SKR within designated areas of Western Riverside County. The Riverside County Conservation Agency (RCHCA) established the SKR HCP in conjunction with the USFWS and CDFW to authorize take of SKR within the covered areas. Through the HCP, seven Core Reserves for SKR were established or expanded to provide adequate conservation of the species within Western Riverside County. Through the SKR HCP, the SKR Fee Assessment Area was established whereby projects located within the Fee Assessment Area would pay a fee to mitigate potential impacts to SKR occupied habitat. The Project is located within the boundaries of the SKR HCP, including within the SKR Fee Assessment Area. As such, the Project is subject to the fee requirements in order to be consistent with the SKR HCP.

3.2 California Environmental Quality Act

3.2.1 CEQA Guidelines Section 15380

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

3.2.2 Non-Listed Special-Status Plants, Wildlife and Vegetation Communities Evaluated Under CEQA

Federally Designated Special-Status Species

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

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

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

State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

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

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

CNDDB Global/State Rankings

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

Global Rankings

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

State Rankings

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

California Native Plant Society

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

Table 3-1. 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 Federal and State Nesting Bird Provisions

3.3.1 Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755, and as amended by: Chapter 634; June 20, 1936; 49 Stat. 1556; P.L. 86-732; September 8, 1960; 74 Stat. 866; P.L. 90-578; October 17, 1968; 82 Stat. 1118; P.L. 91-135; December 5, 1969; 83 Stat. 282; P.L. 93-300; June 1, 1974; 88 Stat. 190; P.L. 95-616; November 8, 1978; 92 Stat. 3111; P.L. 99-645; November 10, 1986; 100 Stat. 3590 and P.L. 105-312; October 30, 1998; 112 Stat. 2956) makes it illegal for anyone to "take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations."

Applied to development projects, the MBTA prohibits the impact to the active nests of birds protected by the MBTA.

3.3.2 California Fish and Game Code

The California Fish and Game Code contains three sections (3503 and 3503.5) that are applied to nesting birds. Section 3503 states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3503.5 more specifically applies to birds-of-prey and states that It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Similar to the MBTA provisions, applied to development projects, the Fish and Game Code sections prohibit the impact to active nests.

3.4 Jurisdictional Waters

3.4.1 Army Corps of Engineers

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

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
> *(2) All interstate waters including interstate wetlands;*
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation*

or destruction of which could affect foreign commerce including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are used or could be used for industrial purpose by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;

(6) The territorial seas;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.

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.

(8) Waters of the United States do not include prior converted cropland.[5]

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.

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.*

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

[5] The term “prior converted cropland” is defined in the Corps’ Regulatory Guidance Letter 90-7 (dated September 26, 1990) as “wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season….” [Emphasis added.]

and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands[6]);

- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

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

3.4.2 Regional Water Quality Control Board

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

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.[7] The memorandum stating that for waters that are no longer considered subject to federal jurisdiction pursuant to Section 404 of the Clean Water Act,

[6] Lichvar, R. W. 2013. *The National Wetland Plant List:* 2013 wetland ratings. Phytoneuron 2013-49: 1-241.

[7] Wilson, Craig M. January 25, 2001. Memorandum addressed to State Board Members and Regional Board Executive Officers.

but which remain “waters of the state”, the State will continue to regulate discharges under the Porter-Cologne Act. In such cases the applicant must apply for and obtain a Waste Discharge Requirement from the Regional Board.

3.4.3 California Department of Fish and Wildlife

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

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

CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFW Legal Advisor has prepared the following opinion[8]:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...

- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFW] as natural waterways...

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

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

[8] California Department of Fish and Game. Environmental Services Division (ESD). 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code.

4.0 RESULTS

This section provides the results of general biological surveys, vegetation mapping, habitat assessments and focused surveys for special-status plants and animals, an assessment for MSHCP riparian/riverine areas and vernal pools, and a jurisdictional delineation for waters of the United States (including wetlands) subject to the jurisdiction of the Corps and Regional Board, and streams (including riparian vegetation) and lakes subject to the jurisdiction of CDFW.

4.1 Existing Conditions

The Project site appears historically to have been used for agricultural purposes and exhibits evidence of being routinely disked over many years as indicated by the presence of annual native and non-vegetation. The Project Site is highly disturbed and as a result primarily supports ruderal non-native vegetation.

The adjacent properties contain March Air Reserve Base (MARB), undeveloped fields, and vacant and occupied residences. The vacant fields occur to the north, east support ruderal vegetation. MARB borders the western side of the Project site.

The topography of the study area is generally flat. The Perris Valley Storm Drain (PVSD) bisects the Project site and traverses the site beginning from the northwest and exiting near the southeastern corner of the site. The elevation at the Project site ranges approximately between 1,465 to 1,495 feet above mean sea level. A few debris piles, small earth bike jump area and light trash occur on the Project site.

4.2 Vegetation Mapping

The entire Project site (89.4 acres) is disturbed as a result of long-standing agricultural activities and discing/mowing operations. Common vegetation identified on site includes London rocket (*Sisymbrium irio*), common goldfields (*Lasthenia californica),* common fiddleneck *(Amsinkia menziessii* var. *intermedia),* redstem filaree (*Erodium cicutarium*), cultivated barley (*Hordeum vulgare*), wild oat (*Avena fatua*), Russian thistle (*Salsola tragus*), cheeseweed (*Malva parviflora*), red brome (*Bromus madritensis* ssp. *rubens*), stinknet (*Oncosiphon piluliferum*), wild radish (*Raphanus sativus*), minature lupine (*Lupinus bicolor*), and summer mustard (*Brassica geniculata*). A complete floral compendium is included in Appendix A. Offsite portions of the Project include five proposed storm drain outlets within the adjacent PVSD, totalling approximately 0.34 acre. The PVSD consists of a disturbed access road on either side, disturbed banks (including riprap in some sections), and an unvegetated soft-bottom channel. The access roads were classified as disturbed, with the remainder of the channel classified as unvegetated riverine. The portions of the PVSD to be affected by the Project do not suppor riparian habitats. A Vegetation Map is attached as Exhibit 5. Representative site photographs are attached as Exhibit 6.

4.3 Special-Status Habitats

The CNDDB identifies the following three special-status vegetation communities for the Sunnymead, Perris, Riverside East, and Steele Peak quadrangle maps: Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, and Southern Sycamore Alder Riparian Woodland. The Project site does not contain any special-status vegetation types, including those identified by the CNDDB.

4.4 Special-Status Plants

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

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

Status

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)

Occurrence

- Not expected to occur – The species is not expected to occur onsite due to the lack of suitable habitat.
- Potential to occur – The species has a potential to occur onsite based on suitable habitat.
- Present – The species was detected onsite during biological surveys.

Species Name	Status	Habitat Requirements	Occurrence
Chaparral sand-verbena *Abronia villosa* var. *aurita*	Federal: None State: None CNPS: List 1B.1 MSHCP: Not Covered	Sandy soils in chaparral, coastal sage scrub.	Not expected to occur.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Marshes, playas and vernal pools; usually alkaline soils. Known from below 1,500 meters (< 4,900 feet) MSL. Blooms March through June.	Not expected to occur.
Davidson's saltscale *Atriplex serenanana* var. *davidsonii*	Federal: None State: None CNPS: List 1B.2 MSHCP: Covered	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Not expected to occur.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CNPS: List 1B.2 MSHCP: Covered	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Not expected to occur.
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Chenopod scrub, playas, vernal pools.	Not expected to occur.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Dry sometimes-sandy soils in chaparral and coastal scrub. Known from 40 to 1,750 meters (100 to 5,700 feet) MSL. Active April through June.	Not expected to occur.
Payson's jewelflower *Caulanthus simulans*	Federal: None State: None CNPS: List 4.2 MSHCP: Covered	Occurs in recently burned or disturbed areas within chaparral, coastal sage scrub and grasslands. Known from 60 to 2,200 meters (200 to 7,200 feet) MSL. Identifiable March through June.	Not expected to occur.
Robinson's pepper-grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CNPS: List 1B.2 MSHCP: Not Covered	Dry soils in chaparral and coastal scrub. Known from below 500 meters (< 1,600 feet) MSL. Active January through July.	Not expected to occur.
Round-leaved filaree *California macrophylla*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Clay soils in cismontane woodland, valley and foothill grassland	Not expected to occur.

Species Name	Status	Habitat Requirements	Occurrence
San Bernardino aster *Symphyotrichum defoliatum*	Federal: FE State: None CNPS: List 1B.2 MSHCP: Not Covered	Occurs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes swamps, and valley and foothill grassland in vernally mesic areas near ditches, streams, and springs. Known from 2 to 2,040 meters (7 to 6,690 feet) MSL. Blooms in July through November.	Not expected to occur.
San Jacinto Valley Crownscale *Atriplex coronata* var. *notatior*	Federal: FE State: None CNPS: List 1B.1 MSHCP: Covered	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Not expected to occur.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: List 1B.1 MSHCP: Covered	Mature undisturbed floodplain terraces and benches with overbank deposits every 50 to 100 years from large washes and rivers. Known from 200 to 770 meters (600 to 2,500 feet) MSL. Blooms April through June.	Not expected to occur.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Alkaline areas in chenopod scrub, meadows and seeps, ditches, playas, riparian woodland and valley and foothill grassland. Known from below 480 meters (1,600 feet) MSL. Active April through Sept.	Not detected on site, but known to occur in close proximity to Project site.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CNPS: List 1B.1 MSHCP: Covered	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Not expected to occur.
Thread-leaved brodiaea *Brodiaea filifolia*	Federal: FT State: SE CNPS: List 1B.1 MSHCP: Covered	Clay, loamy sand or alkaline soils in grasslands at edges of vernal pools or floodplains. Known from below 1,220 meters (< 4,000 feet) MSL. Identifiable April through June.	Not expected to occur.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	Federal: None State: None CNPS: List 2B.1 MSHCP: Covered	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Not expected to occur.

4.5 Special-Status Animals

One special-status animal species, the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) was detected at the Project site. Table 4-2 provides a list of special-status animals evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Project site, 2) applicable MSHCP survey areas, and 3) any other special-status animals that are known to occur within the vicinity of the Project site, for which potentially suitable habitat occurs on the site.

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

Status

Federal	**State**
FE – Federally Endangered	SE – State Endangered
FT – Federally Threatened	ST – State Threatened
FPT – Federally Proposed Threatened	CFP – California Fully-Protected Species
FC – Federal Candidate	SSC – Species of Special Concern

Western Bat Working Group (WBWG)
H – High Priority
LM – Low-Medium Priority
M – Medium Priority
MH – Medium-High Priority

Occurrence

- Absent – The species is absent from the site, either because the site lacks suitable habitat for the species, the site is located outside of the known range of the species, or focused surveys has confirmed the absence of the species.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.
- Present – The species was detected onsite incidentally or through focused surveys.

Species Name	Status	Habitat Requirements	Occurrence
Invertebrates			
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: FE State: None MSHCP: Covered	Larval and adult phases each have distinct habitat requirements tied to host plant species and topography. Larval host plants include *Plantago erecta* and *Castilleja exserta*. Adults occur on sparsely vegetated rounded hilltops and ridgelines, and are known to disperse through disturbed habitats to reach suitable nectar plants.	Absent
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: FE State: None MSHCP: Covered	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Absent
Vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None MSHCP: Covered	Seasonal vernal pools	Absent
Amphibians			
Western spadefoot *Spea hammondii*	Federal: None State: SSC MSHCP: Covered	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Absent
Reptiles			
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC MSHCP: Covered	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Not expected to occur.
Orange-throated whiptail *Aspidoscelis hyperythra*	Federal: None State: SSC MSHCP: Covered	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Not expected to occur.
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC MSHCP: Covered	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Not expected to occur.
Silvery legless lizard *Anniella pulchra pulchra*	Federal: None State: SSC MSHCP: Not Covered	Occurs primarily in areas with sandy or loose organic soil, or where there is plenty of leaf litter. Associated with coastal sage scrub, chaparral, coastal dunes, valley/foothill grasslands, oak woodlands, and pine forests.	Not expected to occur.

Species Name	Status	Habitat Requirements	Occurrence
Two-striped garter snake *Thamnophis hammondii*	Federal: None State: SSC MSHCP: Not Covered	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Absent
Western pond turtle *Emys marmorata*	Federal: None State: SSC MSHCP: Covered	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.	Absent
Birds			
Burrowing owl (burrow sites & some wintering sites) *Athene cunicularia*	Federal: None State: SSC MSHCP: Covered	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Absent, but with the potential to occur.
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC MSHCP: Covered	Low elevation coastal sage scrub and coastal bluff scrub.	Absent
Ferruginous hawk (wintering) *Buteo regalis*	Federal: FSC State: WL MSHCP: Covered	Open, dry country, perching on trees, posts, and mounds. In California, wintering habitat consists of open terrain and grasslands of the plains and foothills.	Low potential to occur on site (wintering).
Golden eagle (nesting & wintering) *Aquila chrysaetos*	Federal: BCC State: WL, FP MSHCP: Covered	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Low potential to occur on site (wintering).
Least Bell's vireo (nesting) *Vireo bellii pusillus*	Federal: FE State: SE MSHCP: Covered	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Absent

Species Name	Status	Habitat Requirements	Occurrence
Loggerhead shrike (nesting) *Lanius ludovicianus*	Federal: None State: SSC MSHCP: Covered	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	Low to moderate potential to occur on site for foraging.
Northern harrier (nesting) *Circus cyaneus*	Federal: None State: SSC MSHCP: Covered	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Not expected to occur on site for nesting. Low potential for foraging.
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: FE State: SE MSHCP: Covered	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Absent
Swainson's hawk (nesting) *Buteo swainsoni*	Federal: BCC State: ST MSHCP: Covered	Summer in wide open spaces of the American West. Nest in grasslands, but can use sage flats and agricultural lands. Nests are placed in lone trees.	Absent
White-tailed kite (nesting) *Elanus leucurus*	Federal: None State: FP MSHCP: Covered	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Absent (nesting). Low potential for foraging.
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: SSC MSHCP: Covered	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Absent
Yellow warbler (nesting) *Setophaga petechia*	Federal: None State: SSC MSHCP: Covered	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.	Absent

Species Name	Status	Habitat Requirements	Occurrence
Mammals			
Los Angeles Pocket Mouse	Federal: None State: SSC MSHCP: Covered	Fine, sandy soils in coastal sage scrub and grasslands.	Low potential to occur on site.
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: SSC MSHCP: Covered	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Low potential to occur on site.
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SSC MSHCP: Covered	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Not expected to occur.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: SSC MSHCP: Covered	Occupies a variety of habitats, but is most common among shortgrass habitats. Also occurs in sage scrub, but needs open habitats.	Present
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC MSHCP: Covered	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Absent
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST MSHCP: Covered	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Low to moderate potential to occur on site.
Western mastiff bat *Eumops perotis californicus*	Federal: None State: SSC WBWG: H MSHCP: Not Covered	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Not expected to occur.

4.6 Critical Habitat

The Project site is not located within any Critical Habitat areas designated by the USFWS.

4.7 Raptor Use

The Project site provides suitable foraging habitat for a number of raptor species, including special-status raptors; however, raptors are not expected to breed onsite due to a lack of suitable habitat.

4.8 Nesting Birds

The Project site contains ground cover providing suitable habitat for nesting migratory birds. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.[9]

4.9 Soil Mapping

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

Exeter Sandy Loam, 0 to 2 Percent Slopes (EnA), Exeter Sandy Loam, Deep, 0 to 2 Percent Slopes (EpA), Exeter Very Fine Sandy Loam, Deep, 0 to 5 Percent Slopes (EyB)

The soils of the Exeter Series have slopes of 0 to 8 percent, and they lie in basins and on alluvial fans. These soils are well drained and developed in alluvium from moderately coarse granite materials. The upper 16 inches of soil consist of brown (10YR 5/3 and 10YR 4/3) sandy loam when dry and dark brown (10YR 3/3) sandy loam when moist. The soils of the Exeter Series are used for dryland grain and pasture, for irrigated alfalfa, potatoes, citrus, grapes, and for home sites.

Greenfield Sandy Loam, 0 to 2 Percent Slopes (GyA)

The soils of the Greenfield Series are deep, well drained soils that formed in moderately coarse and coarse textured alluvium derived from granitic and mixed rock sources. Greenfield soils occur on alluvial fans and terraces and have slopes of 0 to 30 percent. The upper 23 inches consist of pale brown (10YR 6/3) coarse sandy loam when dry and dark brown (10YR 4/3) coarse sandy loam when moist. The soils of the Greenfield Series are used for the production of a wide variety of irrigated field, forage and fruit crops and also for growing dryland grain and pasture. Principal vegetation on uncultivated areas consists of annual grass, forbs, some shrubs and scattered oak trees.

[9] 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.

Hanford Coarse Sandy Loam, 0 to 2 Percent Slopes (HcA)

The soils of the Hanford Series consist of well drained and somewhat excessively drained soils on alluvial fans and slopes supporting this soil range from 0 to 15 percent. The Hanford Series developed in alluvium made up of granitic materials. The upper 18 inches consist of grayish brown (10YR 5/2) coarse sandy loam when dry and very dark grayish brown (10YR 3/2) coarse sandy loam when moist. The soils of the Hanford Series are used for dryland grain and pasture, for irrigated alfalfa, potatoes, and truck crops, and for home sites.

None of the soils within the Study Area are identified as hydric in the SCS's publication, Hydric Soils of the United States[10]; nor are any of these soils listed as hydric in the Soil Survey for Western Riverside County, California.

4.10 Jurisdictional Delineation

The Project site is located adjacent to the Perris Valley Storm Drain (PVSD), which is subject to the jurisdiction of the Corps, Regional Board, and CDFW. The Project is adjacent to approximately 3,990 linear feet of the PVSD. Corps/Regional Board jurisdiction associated with this segment of the PVSD totals approximately 8.55 acres, none of which supports jurisdictional wetlands. CDFW jurisdiction associated with this segment totals approximately 11.97 acres, none of which supports riparian vegetation. The Project proposes five storm drain outfall structures to be placed at the edges of the PVSD. Corps/Regional Board jurisdiction associated with the offsite structures totals approximately 0.092 acre, none of which supports jurisdictional wetlands. CDFW jurisdiction associated with the offsite structures totals approximately 0.20 acre, none of which supports riparian vegetation.

4.11 MSHCP Riparian/Riverine Areas and Vernal Pools

As discussed above in Section 4.10, the Project site is located adjacent to the PVSD, which is considered a MSHCP riverine feature. The Project proposes five storm drain outfall structures to be placed at the edges of the PVSD. Approximately 0.20 acre of the outfall structure footprints are located within MSHCP riverine areas, none of which support riparian vegetation.

[10] United States Department of Agriculture, Soil Conservation Service. 1991. Hydric Soils of the United States, 3rd Edition, Miscellaneous Publication Number 1491. (In cooperation with the National Technical Committee for Hydric Soils.)

5.0 IMPACT ANALYSIS

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

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

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

5.1 California Environmental Quality Act (CEQA)

5.1.1 Thresholds of Significance

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

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and*

preserve for future generations representations of all plant and animal communities..."

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

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

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

5.1.2 Criteria for Determining Significance Pursuant to CEQA

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

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

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

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

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

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

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

5.2 Impacts to Special-Status Species

CEQA threshold (a) asks if a project will "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."

5.2.1 Impacts to Special-Status Plants

The proposed Project will not impact special-status plants.

5.2.2 Impacts to Special-Status Animals

The proposed Project will result in the loss of habitat with the potential to support several special-status species, including listed and non-listed species. One listed species (Stephens' kangaroo rat [SKR]) has the potential to occur on site. The loss of habitat for SKR is potentially significant, both individually and cumulatively. However, the Project site is located within the SKR Fee Assessment Area as established by the SKR Habitat Conservation Plan (SKR HCP). Coverage for impacts to SKR would be provided to the proposed Project through payment of the SKR fee.

In addition to the listed species discussed above, the proposed Project will impact habitat with the potential to support non-listed, special-status species, all of which are designated as MSHCP Covered Species. Potential impacts to the following species would be less than significant, both individually and cumulatively, as a result of a low level of sensitivity, marginal quality of habitat onsite, and/or limited impacts by the proposed Project: ferruginous hawk (winter foraging), golden eagle (winter foraging), loggerhead shrike (foraging), northern harrier (foraging), white-tailed kite (foraging), Los Angeles pocket mouse, northwestern San Diego pocket mouse, and San Diego black-tailed jackrabbit. The proposed Project will not result in potentially significant impacts, either individually or cumulatively, to MSHCP "non-Covered Species".
The Project will not impact any USFWS-designated Critical Habitat.

5.3 Impacts to Special-Status Vegetation Communities

CEQA threshold (b) asks if a project will "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 not impact any native vegetation types, including riparian habitat or other special-status vegetation types. Development of the Project site will impact approximately 89.4 acres of disturbed/ruderal areas. In addition, the construction of offsite outfall structures within the adjacent PVSD will impact 0.14 acre of disturbed areas associated within the channel access road, and 0.20 acre of unvegetated riverine areas associated with the channel. Of the 0.20 acre of impact to riverine areas, only 0.02 acre of impact will be permanent, while 0.18 acre will consist of temporary impacts during to construction. Following the construction of the outfall structures, the temporarily impacts areas of the channel will be restored to pre-construction contours.

5.4 Impacts to Jurisdictional Waters

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

5.4.1 Impacts to Corps/Regional Board Jurisdiction

The proposed Project will permanently impact 0.002 acre of waters of the U.S. (Corps and Regional Board jurisdiction), none of which consists of jurisdictional wetlands. In addition, the Project will temporarily impact 0.09 acre of Corps and Regional Board jurisdiction, none of which consists of jurisdictional wetlands. Impacts to Corps jurisdiction will require a Clean Water Act Section 404 permit from the Corps, and is expected to be authorized under the Nationwide Permit (NWP) program. In addition, the impacts would require a Clean Water Act Section 401 Water Quality Certification from the Regional Board. The impacts to water of the U.S. will be less than significant due to the lack of wetland habitat, the negligible function to biological resources, the lack of local significance, and the small amount of impact.

5.4.2 Impacts to CDFW Jurisdiction

The proposed Project will permanently impact 0.02 acre of CDFW jurisdiction, none of which consists of riparian habitat. In addition, the Project will temporarily impact 0.18 acre of CDFW jurisdiction, none of which consists of riparian habitat. Impacts to CDFW jurisdiction will require a Fish and Game Code Section 1602 Streambed Alteration Agreement from CDFW. The impacts to CDFW jurisdiction will be less than significant due to the lack of riparian habitat, the negligible function to biological resources, the lack of local significance, and the small amount of impact.

5.4.3 Impacts to MSHCP Riparian/Riverine Areas

The proposed Project will permanently impact 0.02 acre of unvegetated riverine areas associated with the PVSD channel due to the construction of the storm drain outfall structures, and will temporarily impact 0.18 acre of the channel during construction. Following the construction of the outfalls, the channel will be restored to pre-construction contours. Impacts to the PVSD channel have been minimized to the maximum extent practicable through the minimum number of outfall structures required, and the minimum impact footprint needed for each structure. Furthermore, construction of the outfall structures will not impact any riparian habitat. Due to the minimal footprint associated with each structure, and with the lack of impact to riparian resources, construction of the outfall structures would not adversely affect riparian/riverine functions and values as it pertains to MSHCP Covered Species.

The total volume of water flow entering the PVSD channel would be very similar to existing conditions. Although the flows would increase in the 100-year condition from 76 cfs to 174 cfs without on-site detention, several detention basins are proposed as part of the Project to reduce the flows discharging into the channel to at or below existing conditions. Any differences would be nominal and immeasurable at this stage of the Project's design. As such, the Project's storm drain discharge would have a less than significant effect to downstream riparian resources in the San Jacinto River. The Project site is located approximately 10 linear miles upstream from the nearest riparian resources in the San Jacinto River. This distance, combined with the fact that the Project's water discharge into the PVSD channel would be very similar to existing conditions, the Project is not expected to adversely affect downstream riparian/riverine resources with regards to water quantities.

With regards to water quality, the Project will comply with a Water Quality Management Plan (WQMP), including Best Management Practices (BMPs) that address the quality of water runoff. The WQMP identifies treatment control BMPs consisting of six sand filter basins. The basins are designed to avoid infiltration over a known groundwater plume, to assist with 100-year detention, and to meet the drawdown requirements of the County of Riverside Airport Land Use Commission (ALUC). The treatment control BMPs are designed to efficiently remove priority pollutants of concern such as bacterial indicators, metals, trash and debris, and toxic organic compounds. The Project will utilize permanent structural source control BMPs and operational source control BMPs to address potential sources of runoff pollutants such as on-site storm drain inlets, interior floor drains and elevator shaft sump pumps, landscape/outdoor pesticide use, refuse areas, industrial processes, loading docks, and parking lots. BMPs include properly marking storm drain inlets, plumbing floor drains and sump pumps to the sanitary sewer, minimizing irrigation and subsequent runoff, promoting surface infiltration, minimizing the use of fertilizers and pesticides, use of pest resistant plants adjacent to hardscape, proper handling/disposal of refuse on a weekly basis, ensuring that all industrial processes are performed indoors, and ensuring the immediate proper cleanup and disposal of any spills. As such, changes in the quality of discharged water from the Project site would not have any potential to directly or cumulatively impact biological functions and values as it relates to downstream resources.

Since the Project will not result in a loss of functions and values as it pertains to MSHCP Covered Species within the Project footprint or within downstream areas, the Determination of Biologically Equivalent or Superior Preservation (DBESP) requirements do not apply to the Project.

5.5 Impacts to Wildlife Movement

Threshold (d) asks if a Project will interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. As noted in Volume I, Section 3.2.3 of the MSHCP document, the MSHCP Conservation Area is comprised of a variety of existing and proposed Cores, Extensions of Existing Cores, Linkages, Constrained Linkages, and Non-contiguous Habitat Blocks. Along with other flood control facilities within the MSHCP, the Perris Valley Storm Drain (PVSD) is part of the MSHCP Conservation Area as existing Public/Quasi-Public (PQP) Lands; however, the PVSD is not identified as part of a Core (existing or proposed) or Linkage (existing or proposed). As such, the MSHCP does not identify the PVSD as a critical Linkage for providing movement and live-in habitat between Core Habitat areas within the MSHCP Reserve. Regardless, the PVSD does provide a connection between the March Air Reserve Base (MARB) and the Lake Perris State Recreation Area and the San Jacinto River. The portion of the PVSD that bisects the Project site does not support any riparian habitat, but is approximately 100-feet wide with a soft bottom, which would allow for the movement of wildlife, including medium to large-sized mammals. The proposed Project will develop on both sides of the PVSD, but besides constructing outfall structures at the existing slopes, the Project will not alter the PVSD in any way that would interfere substantially with wildlife movement. The width and natural streambed will be maintained through the Project site.

5.6 Conflicts with Local Ordinances, HCPs, NCCPs or other Conservation Plans

CEQA threshold (e) asks if a project will "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance." The proposed Project will not conflict with any local policies or ordinances designed to protect biological resources.

CEQA threshold (f) asks if a project will "conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan." As discussed throughout this report, the Project is located within the Western Riverside County MSHCP. As described below in Section 7.0 of this report, the Project will be consistent with the biological requirements of the MSHCP. In addition, the Project is located within the SKR HCP and will consistent with the requirements of that HCP. As such, the Project will not conflict with the provisions of either HCP.

5.7 Impacts to Nesting Birds

The proposed Project has the potential to impact active bird nests if vegetation is removed during the nesting season (February 1 to August 31). Impacts to nesting birds are prohibited by the

MBTA and California Fish and Game Code. A project-specific measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

5.8 Indirect Impacts to Biological Resources

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

The Project is located adjacent to the PVSD channel, which is designated as existing PQP lands under the MSHCP; however the adjacent channel does not contain native open space, and therefore indirect impacts are not anticipated to special-status biological resources. The adjacent PVSD does not support riparian habitat, and is not expected to in the future with the implementation of routine flood control maintenance. Furthermore, the Project will not result in adverse water quality impacts to downstream resources. As noted above, the total volume of water flow entering the PVSD channel would be very similar to existing conditions. Although the flows would increase in the 100-year condition from 76 cfs to 174 cfs without on-site detention, several detention basins are proposed as part of the Project to reduce the flows discharging into the channel to at or below existing conditions. In addition, the Project will comply with a WQMP that utilizes both treatment and source control BMPs. Treatment control BMPs consist of six sand filter basins. The basins are designed to avoid infiltration over a known groundwater plume, to assist with 100-year detention, and to meet the drawdown requirements of the Riverside ALUC. The treatment control BMPs are designed to efficiently remove priority pollutants of concern such as bacterial indicators, metals, trash and debris, and toxic organic compounds. The Project will utilize permanent structural source control BMPs and operational source control BMPs to address potential sources of runoff pollutants. With the proposed design features and implementation of water quality BMPs, the Project is not expected to adversely affect downstream riparian/riverine resources with regards to water quantity or quality.

5.9 Cumulative Impacts to Biological Resources

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

As noted above in Section 5.4 of this report, the Project will impact habitat with the potential to support one listed species (SKR). The loss of potential habitat for SKR is potentially cumulatively significant. However, the Project site is located within the SKR Fee Assessment Area as established by the SKR HCP. Coverage for impacts to SKR would be provided to the

proposed Project through payment of the SKR fee. Section 5.4 of this report also notes the actual or potential occurrence of other non-listed, special-status species, including the black-tailed jackrabbit (detected onsite), Los Angeles pocket mouse, northwestern San Diego pocket mouse, and several species of birds (including raptors) that would not breed onsite, but that have the potential to forage onsite. The loss of actual or potential habitat for these species would not be cumulatively significant due the level of site disturbance, the low habitat quality, and the low level of sensitivity of these species. Furthermore, these species are all designated as Covered Species under the MSHCP, and therefore the Project would receive coverage for the species through participation with the MSHCP.

6.0 AVOIDANCE MEASURES

The following discussion provides project-specific mitigation/avoidance measures for actual or potential impacts to special-status resources.

6.1 Burrowing Owl

The Project site contains suitable habitat for burrowing owls; however, burrowing owls were not detected onsite during focused surveys. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys prior to site grading. As such, the following measure is recommended to avoid direct impacts to burrowing owls and to ensure consistency with the MSHCP:

- A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 30 days prior to site disturbance. If burrowing owls are detected onsite, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, and subject to the approval of the RCA and wildlife agencies.

6.2 Nesting Birds

The Project site contains vegetation with the potential to support nesting birds. As discussed above, the MBTA and California Fish and Game Code prohibit impacts to nesting birds. The following measure is recommended to avoid impacts to nesting birds:

- As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

7.0 MSHCP CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the proposed Project with respect to compliance with biological aspects of the Western Riverside County MSHCP. Specifically, this analysis evaluates the proposed Project with respect to the Project's consistency with MSHCP Reserve assembly requirements, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures).

7.1 Project Relationship to Reserve Assembly

The Project site is not located within the MSHCP Criteria Area, and is therefore not subject to the HANS or JPR processes. The adjacent PVSD channel is designated as existing PQP Conserved Lands under the MSHCP. However, the Project will not adversely affect functions as it relates to MSHCP Covered Species within the PVSD channel or further downstream within the San Jacinto River. Adjacent to the Project site, the PVSD channel bottom ranges in width from approximately 70 to 100 feet. The channel consists of a sandy bottom lacking any riparian/wetland habitat. The slopes are either earthen lacking native vegetation or contain ungrouted riprap. Although the channel lacks native habitat, it does provide connectivity for wildlife movement between MARB and the Lake Perris State Recreation Area, and the downstream San Jacinto River, but the PVSD is not specifically recognized as a critical habitat Linkage under the MSHCP. Regardless, the Project is not expected to adversely affect movement within the PVSD channel. The Project will result in a very small amount of permanent impact (0.02 acre) to the channel for the construction of storm drain outfall structures. However, the remainder of the channel will not be affected by the Project, and therefore will not restrict the opportunity for movement through the channel. Furthermore, the Project will comply with a WQMP that identifies BMPs to address potential sources of runoff pollutants in order to ensure that the Project will not result in adverse impacts to downstream resources.

7.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

Volume I, Section 6.1.2 of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSCHP Plan Area. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSCHP Conservation Area are maintained. The MSHCP requires that as projects are proposed within the overall Plan Area, the effect of those projects on riparian/riverine areas and vernal pools must be addressed.

As noted above in Section 5.7, the Project will permanently impact approximately 0.02 acre of unvegetated riverine areas associated with the PVSD channel due to the construction of the storm drain outfall structures, and will temporarily impact 0.18 acre of the channel during construction. Following the construction of the outfalls, the channel will be restored to pre-construction contours. Impacts to the PVSD channel have been minimized to the maximum extent practicable through the minimum number of outfall structures required, and the minimum impact footprint needed for each structure. Furthermore, construction of the outfall structures will not impact any

riparian habitat. Due to the minimal footprint associated with each structure, and with the lack of impact to riparian resources, construction of the outfall structures would not adversely affect riparian/riverine functions and values as it pertains to MSHCP Covered Species.

The total volume of water flow entering the PVSD channel would be very similar to existing conditions. Although the flows would increase in the 100-year condition from 76 cfs to 174 cfs without on-site detention, several detention basins are proposed as part of the Project to reduce the flows discharging into the channel to at or below existing conditions. Any differences would be nominal and immeasurable at this stage of the Project's design. As such, the Project's storm drain discharge would have a less than significant effect to downstream riparian resources in the San Jacinto River. The Project site is located approximately 10 linear miles upstream from the nearest riparian resources in the San Jacinto River. This distance, combined with the fact that the Project's water discharge into the PVSD channel would be very similar to existing conditions, the Project is not expected to adversely affect downstream riparian/riverine resources with regards to water quantities.

With regards to water quality, the Project will comply with a WQMP, including BMPs that address the quality of water runoff. The WQMP identifies treatment control BMPs consisting of six sand filter basins. The basins are designed to avoid infiltration over a known groundwater plume, to assist with 100-year detention, and to meet the drawdown requirements of the County of Riverside ALUC. The treatment control BMPs are designed to efficiently remove priority pollutants of concern such as bacterial indicators, metals, trash and debris, and toxic organic compounds. The Project will utilize permanent structural source control BMPs and operational source control BMPs to address potential sources of runoff pollutants such as on-site storm drain inlets, interior floor drains and elevator shaft sump pumps, landscape/outdoor pesticide use, refuse areas, industrial processes, loading docks, and parking lots. BMPs include properly marking storm drain inlets, plumbing floor drains and sump pumps to the sanitary sewer, minimizing irrigation and subsequent runoff, promoting surface infiltration, minimizing the use of fertilizers and pesticides, use of pest resistant plants adjacent to hardscape, proper handling/disposal of refuse on a weekly basis, ensuring that all industrial processes are performed indoors, and ensuring the immediate proper cleanup and disposal of any spills. As such, changes in the quality of discharged water from the Project site would not have any potential to directly or cumulatively impact biological functions and values as it relates to downstream resources.

Since the Project will not result in a loss of functions and values as it pertains to MSHCP Covered Species within the Project footprint or within downstream areas, the DBESP requirements do not apply to the Project. The Project is consistent with *Volume I, Section 6.1.2* of the MSHCP.

7.3 Protection of Narrow Endemic Plants

Volume I, Section 6.1.3 of the MSHCP requires that within identified Narrow Endemic Plant Species Survey Areas (NEPSSA), site-specific focused surveys for Narrow Endemic Plants Species will be required for all public and private projects where appropriate soils and habitat are

present. The Project site is not located within the NEPSSA. Focused plant surveys are not required pursuant to the MSHCP. The Project is consistent with *Volume I, Section 6.1.3*.

7.4 Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area. Future development in proximity to the MSHCP Conservation Area may result in edge effects with the potential to adversely affect biological resources within the Conservation Area. To minimize such edge effects, the guidelines shall be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area and address the following:

- Drainage;
- Toxics;
- Lighting;
- Noise;
- Invasive species;
- Barriers;
- Grading/Land Development.

As discussed in Section 5.0 of this report, the Project is not located adjacent to native open space, and therefore indirect impacts are not anticipated to special-status biological resources. The adjacent PVSD does not support riparian habitat, and is not expected to in the future with the implementation of routine flood control maintenance. Furthermore, the Project will not result in adverse water quality impacts to downstream resources.

7.5 Additional Survey Needs and Procedures

Volume I, Section 6.3.2 of the MSHCP identifies that in addition to the Narrow Endemic Plant Species addressed in *Section 6.1.3*, additional surveys may be needed for other certain plant and animal species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required if a project site occurs within a designated Criteria Area Plant Species Survey Area (CAPSSA), or special animal species survey area (i.e., burrowing owl, amphibians, and mammals). The Project site is located within the burrowing owl survey area, but is not located within the amphibian or mammal survey areas, or within the CAPSSA. Focused burrowing owl surveys were conducted for the Project site, and no burrowing owls were detected. As indicated in Section 6.2 of this report, pre-construction burrowing owl surveys will be conducted within the 30 days of site disturbance in conjunction with MSHCP requirements. With the implementation of this measure, the Project will be consistent with MSHCP *Volume I, Section 6.3.2*.

7.6 Conclusion of MSHCP Consistency

As outlined above, the proposed Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to the Project's relationship to reserve assembly, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures).

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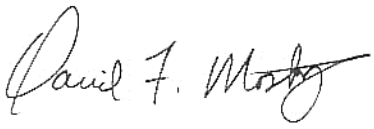
9.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present 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.



Signed:_____ Date: 3/17/16

s:0849-16e.biotech.docx

Source: ESRI World Street Map

N

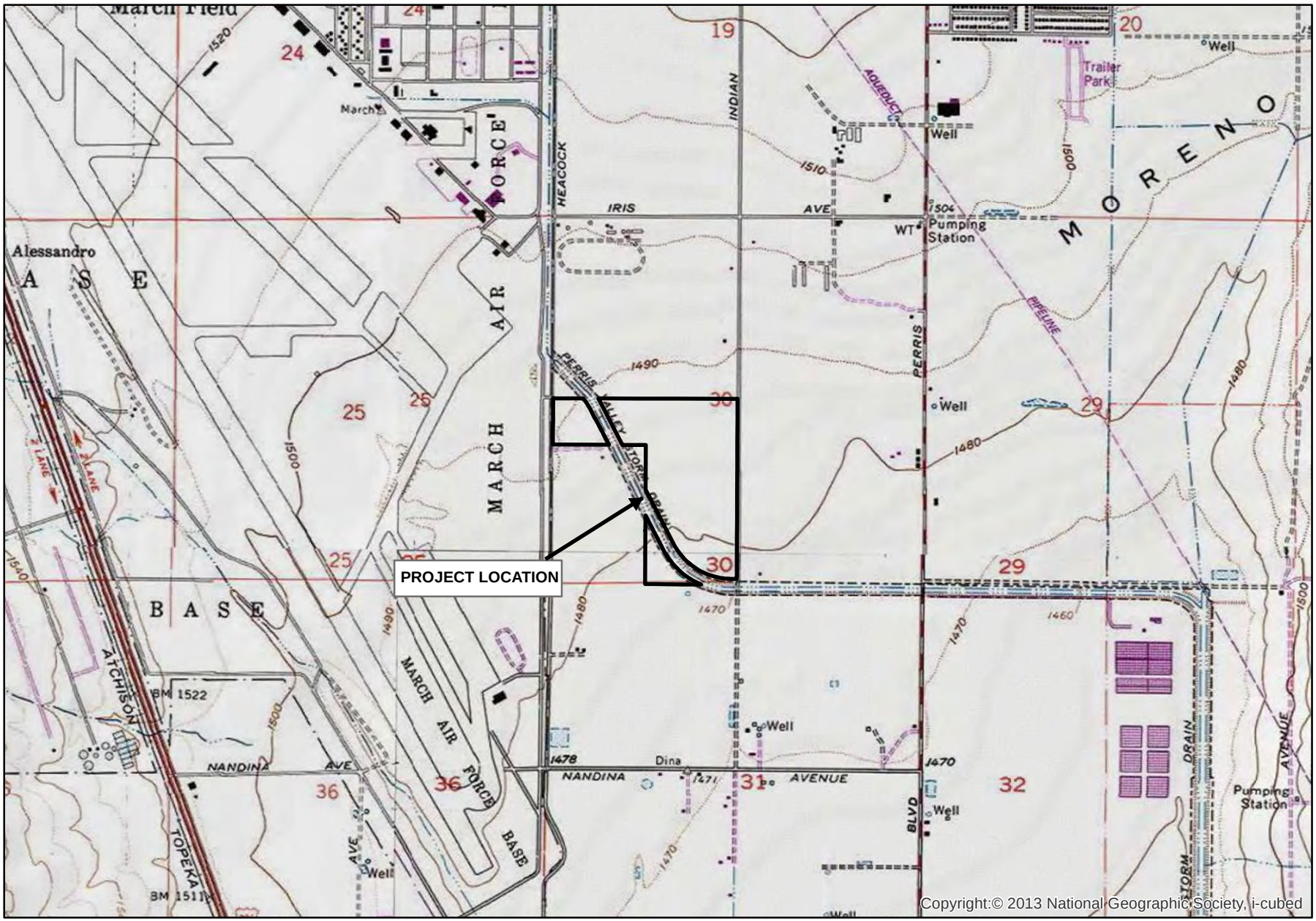
0 2 4 8 Miles

MORENO VALLEY LOGISTICS CENTER PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Sunnymead and Perris, CA quadrangles

N

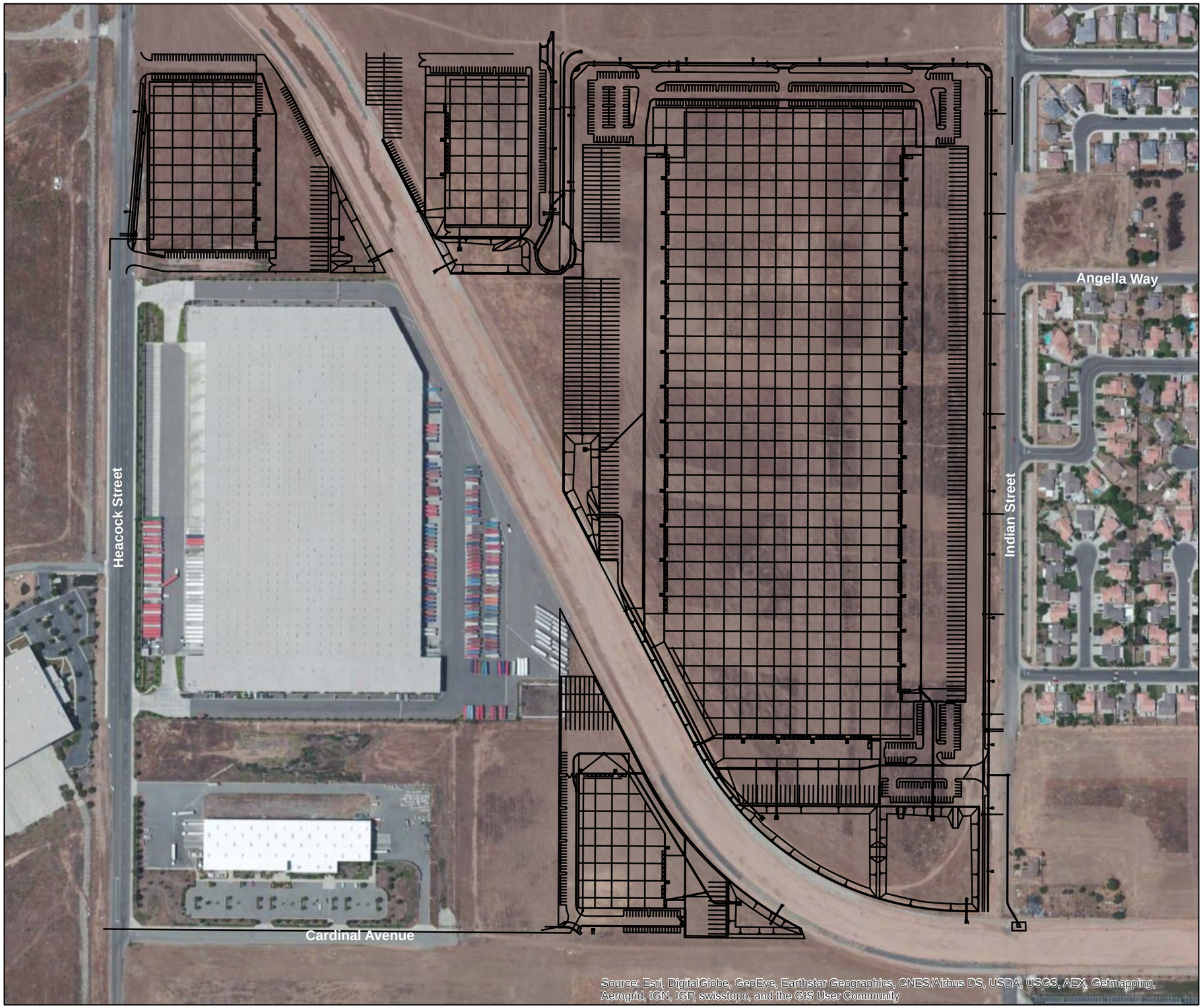
0 1,000 2,000 4,000 Feet

MORENO VALLEY LOGISTICS CENTER PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Legend

Project Footprint

N

0 150 300 600

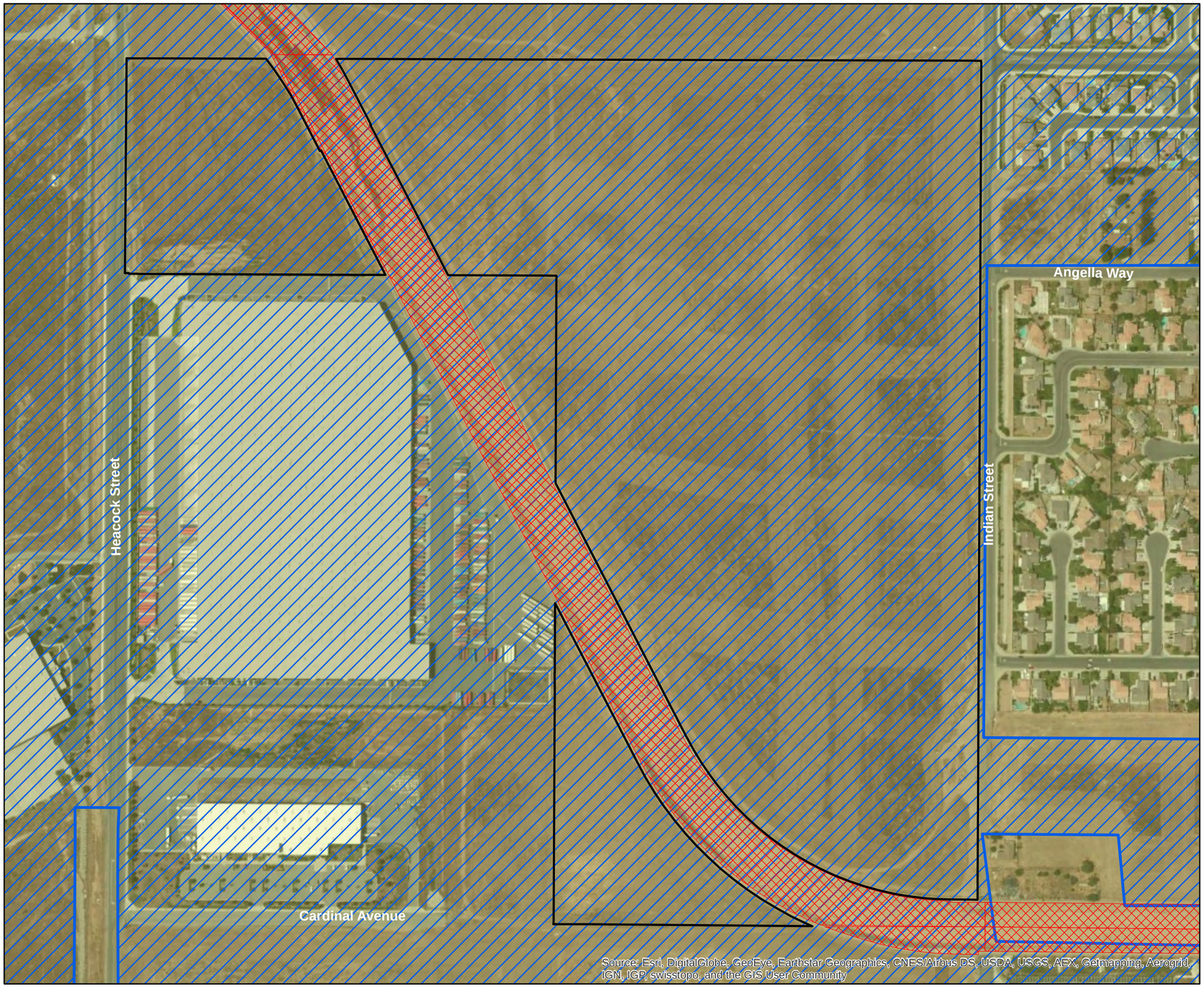
Feet

MORENO VALLEY LOGISTICS CENTER PROJECT

Project Site Plan

GLENN LUKOS ASSOCIATES

Exhibit 3



Legend

- Project Boundary
- PQP Conserved Lands
- Burrowing Owl Survey
- SKR Plan Fee

N

0 150 300 600

Feet

MORENO VALLEY LOGISTICS CENTER PROJECT

MSHCP Overlay

GLENN LUKOS ASSOCIATES

Exhibit 4

Legend

- Ruderal/Disturbed
- Unvegetated Riverine
- Project Boundary

N

0 150 300 600

Feet

MORENO VALLEY LOGISTICS CENTER PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

Photograph 1: View looking south from the southwestern portion of the Project site (located west of the Perris Valley Storm Drain). Photo taken March 12, 2015.

Photograph 2: View looking north from the northwestern portion of the Project site (located west of the Perris Valley Storm Drain). Photo taken March 12, 2015.

Photograph 3: View looking north from the southeastern portion of the Project site (located east and north of the Perris Valley Storm Drain). Photo taken March 12, 2015.

Photograph 4: View looking west from the southern portion of the Project site (located north and east of the Perris Valley Storm Drain). Photo taken March 12, 2015.

GLENN LUKOS ASSOCIATES

Exhibit 6

MORENO VALLEY LOGISTICS CENTER PROJECT

Site Photographs

Photograph 5: View looking west from the northern portion of the Project site (located east of the Perris Valley Storm Drain). Photo taken March 12, 2015.

Photograph 6: View looking at a California ground squirrel burrow complex located on site. Photo taken March 12, 2015.

Photograph 7: View looking at the Project site. Photo taken April 9, 2015.

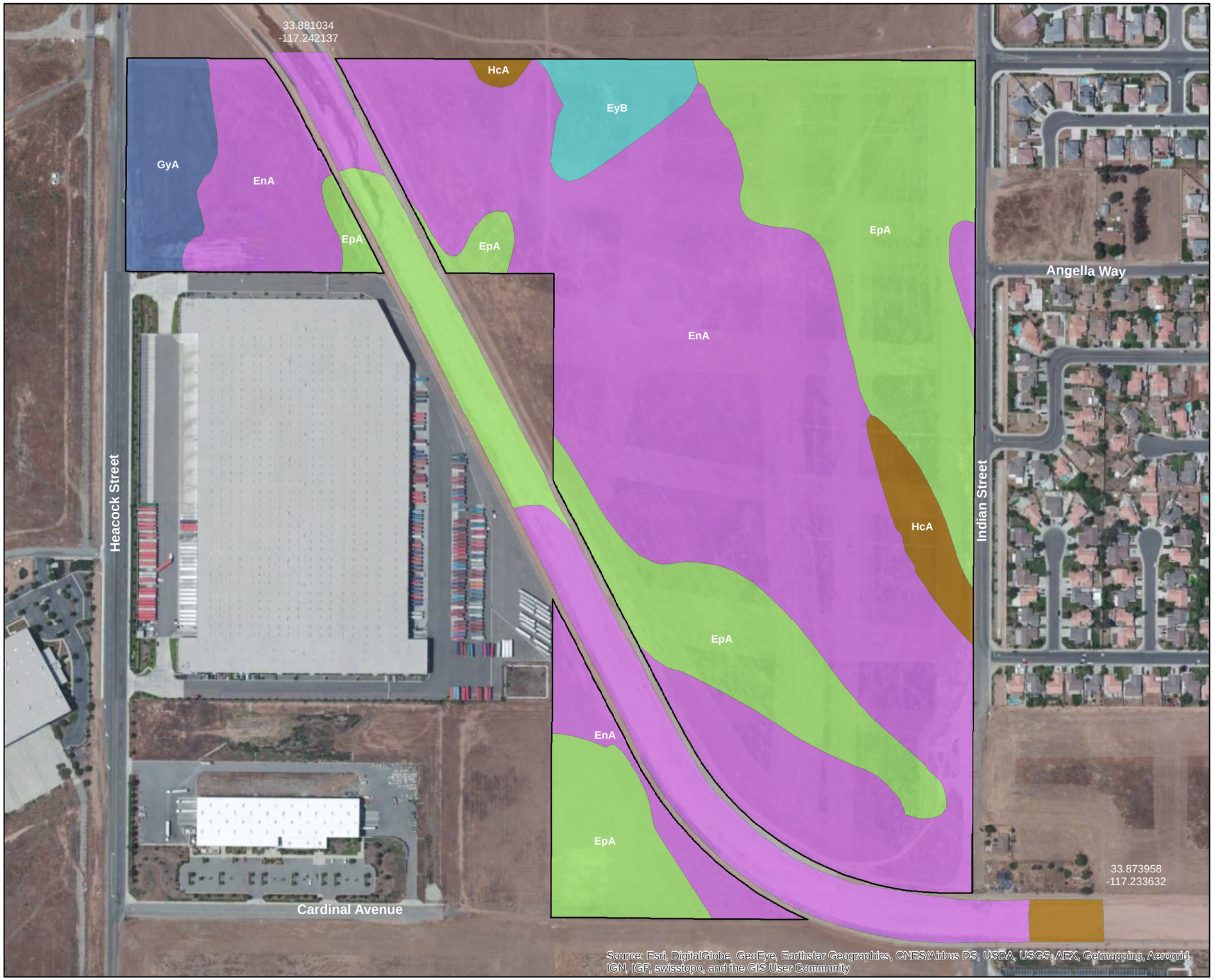
Photograph 8: View looking within the Perris Valley Storm Drain. Photo taken March 26, 2015.

GLENN LUKOS ASSOCIATES

Exhibit 6

MORENO VALLEY LOGISTICS CENTER PROJECT

Site Photographs



Legend

- Project Boundary
- EnA - Exeter sandy loam, 0 to 2 percent slopes
- EpA - Exeter sandy loam, deep, 0 to 2 percent slopes
- EyB -Exeter very fine sandy loam, deep, 0 to 5 percent slopes
- GyA - Greenfield sandy loam, 0 to 2 percent slopes
- HcA - Hanford coarse sandy loam, 0 to 2 percent slopes

N

0 150 300 600

Feet

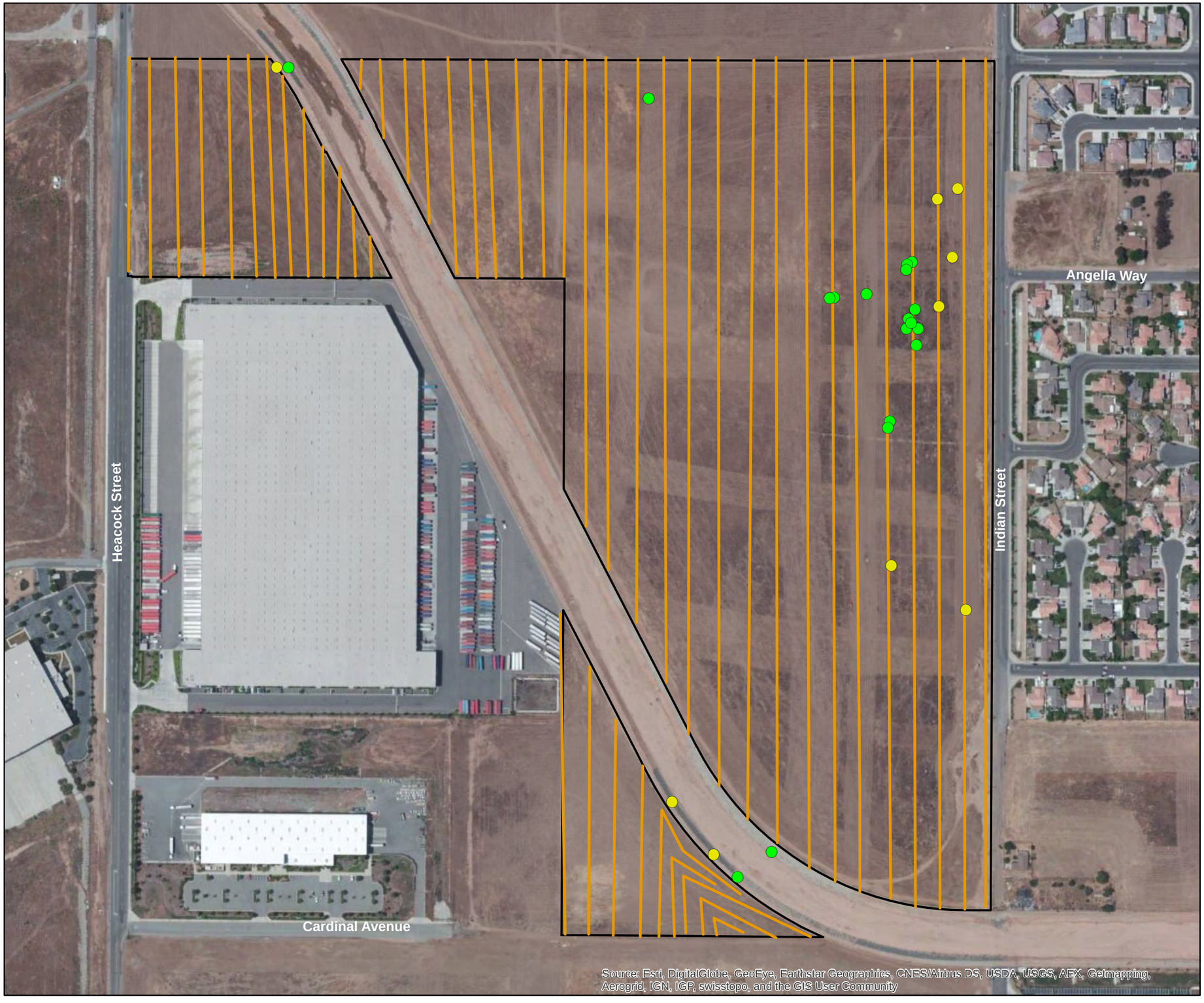
Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 7



Legend

- Project Boundary
- Burrowing Owl Transects
- Burrow
- Burrow Complex

N

0 150 300 600

Feet

MORENO VALLEY LOGISTICS CENTER PROJECT

Burrowing Owl Map

GLENN LUKOS ASSOCIATES

Exhibit 8

Legend

- Project Boundary
- Corps/RWQCB Non-Wetland Waters
- CDFW Unvegetated Streambed

N

0 150 300 600

Feet

1 inch = 300 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

Corps/CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9

Legend

- Project Boundary
- MSHCP Riverine

N

0 150 300 600

Feet

1 inch = 300 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

MSHCP Riverine

GLENN LUKOS ASSOCIATES

Exhibit 10

Appendix A

Floral Compendium

The floral compendium lists all species identified during biological surveys conducted for the Project site. Taxonomy typically follows Baldwin et al (2012). Common plant names are taken from Baldwin (2012), Munz (1974), Roberts et al (2004), and Roberts (2008). An asterisk (*) denotes a non-native species.

SCIENTIFIC NAME	COMMON NAME
DICOTYLEDONES	**DICOT FLOWERING PLANTS**
ASTERACEAE	**Sunflower Family**
* *Centaurea melitensis*	Tocalote
Encelia farinosa	Brittlebush
Helianthus annuus	Common sunflower
Lasthenia californica	Common goldfields
* *Oncosiphon piluliferum*	Stinknet
BORAGINACEAE	**Borage Family**
Amsinkia menziessii	Common fiddleneck
BRASSICACEAE	**Mustard Family**
* *Brassica geniculata*	Shortpod mustard
* *Raphanus sativus*	Wild radish
* *Sisymbrium irio*	London rocket
CHENOPODIACEAE	**Goosefoot Family**
* *Salsola tragus*	Russian thistle
FABACEAE	**Legume Family**
Lupinus bicolor	Miniature lupine
GERANIACEAE	**Geranium Family**
* *Erodium cicutarium*	Red-stemmed filaree
LAMIACEAE	**Mint Family**
* *Marrubium vulgare*	Horehound
MALACEAE	**Mallow Family**
* *Malva parviflora*	Cheeseweed

MONOCOTYLEDONES	**MONOCOT FLOWERING PLANTS**
POACEAE	**Grass Family**
* *Avena fatua*	Wild oat
* *Bromus diandrus*	Ripgut
* *Bromus madritensis* ssp. *rubens*	Foxtail chess
* *Hordeum murinum*	Mouse barley
* *Hordeum vulgare*	Barley

Appendix B

Faunal Compendium

The faunal compendium lists species identified on the Project site. Scientific nomenclature and common names for vertebrate species referred to in this report follow Collins (2009) for amphibians and reptiles, Baker, et al. (2003) for mammals, and AOU Checklist (1998) for birds. An (*) denotes non-native species.

REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**Phrynosomatid Lizards**
Sceloporus occidentalis longipes	Great Basin fence lizard
Uta stansburiana	common side-blotched lizard
AVES	**BIRDS**
ACCIPITRIDAE	**Hawks And Old World Vultures**
Buteo jamaicensis	red-tailed hawk
ALAUDIDAE	**Larks**
Eremophila alpestris	horned lark
ANATIDAE	**Ducks, Geese and Swans**
Anas platythynchos	mallard
COLUMBIDAE	**Pigeons and doves**
* *Columba livia*	rock pigeon
* *Streptopelia decaocto*	Eurasian collared-dove
Zenaida macroura	mourning dove
CORVIDAE	**Crows And Jays**
Corvus brachyrhynchos	American crow
EMBERIZIDAE	**Emberizids**
Passeerculus sandwichensis	savannah sparrow
Zonotrichia leucophrys	white-crowned sparrow
FALCONIDAE	**CARACARAS AND FALCONS**
Falco sparverius	American kestrel
FRINGILLIDAE	**Fringilline And Cardueline Finches and Allies**
Haemorhous mexicanus	house finch

Spinus psaltria	lesser goldfinch
HIRUNDINIDAE	**Swallows**
Petrochelidon pyrrhonota	cliff swallow
Stelgidopteryx serripennis	northern rough-winged swallow
ICTERIDAE	**Blackbirds**
Agelaius phoeniceus	red-winged blackbird
Sturnella neglecta	western meadowlark
Xanthocephalus xanthocephalus	yellow-headed blackbird
MIMIDAE	**Mockingbirds and Thrashers**
Mimus polyglottos	northern mockingbird
MOTACILLIDAE	**Wagtails and Pipits**
Anthus rubescens	American pipit
STURNIDAE	**Starlings**
* *Sturnus vulgaris*	European starling
TROCHILIDAE	**Hummingbirds**
Calypte anna	Anna's hummingbird
Selasphorus sasin	Allen's hummingbird
TYRANNIDAE	**Tyrant Flycatchers**
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe
Tyrannus vociferans	Cassin's kingbird

MAMMALIA

MAMMALS

CANIDAE	**Dogs, Coyotes, Foxes**
* *Canis lupus familiaris*	Domestic dog
GEOMYIDAE	**Pocket Gophers**
Thomomys bottae	Botta's pocket gopher
LEPORIDAE	**Rabbits And Hares**
Lepus californicus bennettii	San Diego black-tailed jackrabbit
Sylvilagus audubonii	Audubon's (desert) cottontail
SCIURIDAE	**Squirrels, Chipmunks, And Marmots**
Otospermophilus beecheyi	California ground squirrel