Appendix D -Biological Resources Reports and DBESP

BIOLOGICAL TECHNICAL REPORT

FOR THE

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

LOCATED IN THE CITY OF BEAUMONT, RIVERSIDE COUNTY, CALIFORNIA

Prepared For:

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August 12, 2021

INFORMATION SUMMARY

A. Report Date: August 12, 2021

B. Report Title: Biological Technical Report for the Potrero Logistics Center Warehouse Project

C. Project Site Location: City of Beaumont, Riverside County, California

D. Owner/Applicant:
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F. Report Summary:

This report evaluates impacts to biological resources from the development of the Potrero Logistics Center Warehouse Project [Project]. Biological surveys for the Project were conducted by Glenn Lukos Associates, Inc. (GLA).

The proposed Project is located within The Pass Area Plan of the Western Riverside County Multiple Species Habitat Conservation Plan [MSHCP] (Dudek 2003), but is not located within an MSHCP Criteria Area/Conservation Area. The proposed Project site is located within the MSHCP Burrowing Owl Survey Area, the MSHCP Mammal Survey Area, and the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA); however, the proposed Project site is not located within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA), the MSHCP Amphibian Survey Area, MSHCP suitable habitat areas for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), or Core and Linkage areas.

GLA Biologists/Regulatory Specialists began site-specific surveys in November 2020. Pursuant to MSHCP policies, biological surveys included habitat assessments for special-status species including the Los Angeles pocket mouse, as well as focused surveys for the burrowing owl (*Athene cunicularia*; BUOW) and targeted NEPSSA species including Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*). In addition, GLA conducted vegetation mapping, mapping of MSHCP riparian/riverine areas, and a delineation of potentially jurisdictional waters.

The proposed Project would result in potentially significant impacts to habitat supporting two listed species: California gnatcatcher (*Polioptila californica*) [CAGN] and Stephens' kangaroo rat [SKR] (*Dipodomys stephensi*); however, impacts to the CAGN and SKR would be reduced to a level less than significant through the Project's consistency and compliance with the MSHCP (including a per acre fee payment).

The proposed Project would also result in the loss of potential habitat for other non-listed, special-status species, including MSHCP non-covered species. Impacts to Covered Species would be reduced to a level less than significant with consistency and participation with the MSHCP (including a per acre fee payment).

The proposed Project would impact MSHCP riparian/riverine areas, as well as waters subject to the jurisdictions of the Santa Ana Regional Water Quality Control Board (Regional Board) and the California Department of Fish and Wildlife (CDFW). Impacts to MSHCP riparian/riverine resources would require a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis to determine the amount and type of mitigation needed under the Plan to address the proposed impacts.

The proposed Project would be consistent with all applicable MSHCP policies, 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). Through compliance with the MSHCP, the Plan would fully mitigate for potentially significant impacts under CEQA that would occur by the Project, including potential cumulative impacts.

G. Individuals Conducting Fieldwork:

Stephanie Cashin, Jillian Stephens, Jeff Ahrens, Zack West, Chris Waterston, David Smith, April Nakagawa, Kevin Livergood, Dave Moskovitz, and Phillippe Vergne (Envira, Inc.)

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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 approximately 65.4-acre Potrero Logistics Center Warehouse Project (the Project) located in the City of Beaumont, 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 approximately 65.4-acre Project site, all methods employed regarding the general 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 and MSHCP 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) assessment for the presence of wildlife migration and colonial nursery sites; (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) jurisdiction pursuant to Section 404 of the Clean Water Act, State Water Quality Control Board pursuant to Section 401 of the Clean Water Act, and CDFW jurisdiction 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 biological studies and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

1.2 Project Location

The Project site comprises approximately 65.4 acres in the City of City of Beaumont, Riverside County, California [Exhibit 1 – Regional Map] and is located within Section 7 of Township 3 South, Range 1 West, of the U.S. Geological Survey (USGS) El Casco, California 7.5" topographic quadrangle map (dated 1967 and photorevised in 2015) [Exhibit 2 – Vicinity Map]. The Project site is generally bordered by Potrero Boulevard to the east, State Route 60 (SR-60) to the north, an active construction site to the west, and undeveloped open space to the south.

1.3 Project Description

The proposed Project, commonly referred to as the "Potrero Logistics Center Warehouse Project", includes the construction and operation of an approximately 577,920-square foot "high-cube" industrial warehouse facility with associated parking and detention basin.

For this report, the term *Project site* is defined as the 65.43 acres of land controlled by the applicant as identified on Exhibit 3. The term *Project footprint* is defined as the land proposed for direct impact by the Project, including both on-site and off-site impact areas, totaling 37.02 acres. All impacts are assumed permanent, unless explicitly stated as temporary. The term *Avoided* refers to land not proposed for development, thus occurring outside of the Project footprint but within the Project site [Exhibit 3].

The entire Project site was delineated and mapped according to vegetation community; however, it is important to note that biological survey efforts, including focused plant and animal surveys, were concentrated on areas within the Project footprint. These areas, as identified on Exhibit 3, are proposed for direct impact by the Project whereas the southern portion of the Project site is avoided and will therefore not be impacted by the proposed Project.

1.4 Relationship of the Project Site to the MSHCP

1.4.1 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.

1.4.2 Relationship of the Project Site to the MSHCP

The Project site is located within The Pass Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area (Criteria Cells) or the MSHCP Criteria Area Plant Species Survey Area (CAPSSA). The Project site is also not located within the MSHCP Amphibian Survey Area, MSHCP suitable habitat areas for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), or Core and Linkage areas. The southern half of the Project site is located within the MSHCP Mammal Survey area, while the entirety of the Project site is located within the MSHCP Burrowing Owl Survey Area and the Narrow Endemic Plant Species Survey Area (NEPSSA) [Exhibit 4 – MSHCP Overlay Map]. Specifically, the site occurs in NEPSSA Survey Area 8. As such, pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*).

Several drainage features that are considered MSHCP riparian/riverine resources are present within the Project site, which are subject to MSHCP riparian/riverine policies (Volume I, Section 6.1.2) that address the treatment of riparian/riverine areas or vernal pools, and survey requirements for riparian birds, including least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), as well as listed fairy shrimp, as appropriate based on the potential or lack of potential for these areas to support riparian/riverine species.

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:

- Delineation of aquatic resources (including wetlands and riparian habitat) potentially subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), CDFW, and MSHCP riparian/riverine areas and vernal pools policy;
- Performance of vegetation mapping for the Project site;
- 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 and the MSHCP;
- Performance of focused surveys for rare and narrow endemic plants;
- Performance of focused surveys for burrowing owl; and
- Ongoing performance of focused surveys for fairy shrimp.

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDB (CDFW 2020), CNPS 8th edition online inventory (CNPS 2020), Natural Resource Conservation Service soil data (NRCS 2020), MSHCP species and habitat maps and sensitive soil maps (Dudek 2003), 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. 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	2020 and 2021 Survey Dates	Biologist(s)
General Biological Survey	11/17/20	JS, JA
Jurisdictional Delineation and Evaluation of MSHCP Riparian/Riverine Areas	12/9/20	ZW, CW
Evaluation of MSHCP Vernal Pools and Fairy Shrimp Habitat	11/17/20, 12/9/20, 12/10/20	JS, JA, ZW, CW, KL
Phase One Assessment for the Los Angeles Pocket Mouse	12/8/20	PV (Envira, Inc.)
Focused Plant Surveys	3/23/21, 4/14/21, 5/4/21	JS

Survey Type	2020 and 2021 Survey Dates	Biologist(s)
Focused Burrowing Owl Surveys	3/8/21, 3/23/21, 4/12/21, 5/4/21	DS, AN
Fairy Shrimp Surveys	ongoing	KL, DM, SC

SC = Stephanie Cashin JS = Jillian Stephens JA = Jeff Ahrens ZW = Zack West
CW = Chris Waterston DS = David Smith AN = April Nakagawa KL = Kevin Livergood
DM = Dave Moskovitz PV = Philippe Vergne (Envira, Inc.)

Individual plants and wildlife species were evaluated in this report based on their "special-status." For 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); and/or
- CNPS Rare Plant Inventory Rank 1A, 1B, 2A, 2B, 3, or 4.

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/riverine habitat.

2.1 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 survey; (4) vegetation mapping according to Holland (1986); and (5) habitat assessments and focused surveys for special-status plants (including those with MSHCP requirements).

2.1.1 Literature Search

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

- California Native Plant Society, Rare Plant Program. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) (CNPS 2021); and
- CNDDB for the USGS 7.5' quadrangles: El Casco, California and surrounding quadrangles (CDFW 2021).

2.1.2 Vegetation Mapping

Vegetation communities within the Project site were mapped according to Holland (1986) when possible. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph.

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

A literature search was conducted to obtain a list of special-status plants with the potential to occur within the Project site. The 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 (2021) and the MSHCP (Dudek 2003).

The Project is located within NEPSSA Survey Area 8. Pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*).

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.

2.1.4 Botanical Surveys

GLA biologist Jillian Stephens visited the site on November 17, 2020 and March 23, April 14, and May 4, 2021 to conduct general and focused plant 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).

2.1.5 Botanical Survey Limitations

The rainy season from November of 2020 through April of 2021 resulted in exceptionally low precipitation for the entire greater Southern California region. This data indicates that the 2020-2021 rainy season was a drought year, and as such, some special-status plant species, as well as

plant species common to the entire region, may not have had enough resources to produce the vegetative matter, flowers, and/or fruit required to make species identifications.

As such, GLA biologists made substantial efforts to visit reference populations for target species when possible, and also utilized resources such as local herbaria and the California Consortia of Herbaria to determine the annual occurrences of plant species throughout the region. This tracking of local flora phenology and occurrences allowed GLA biologists to make confident decisions on the confirmed absence of target plant species not detected during this drought condition.

2.2 Wildlife Resources

Wildlife species were evaluated and detected during the 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 visits. 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 survey(s), habitat assessment(s), and/or focused surveys for special-status animals are included below.

2.2.1 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.

2.2.2 Special-Status Animal Species Evaluated for the Project Site

A literature search was conducted to obtain a list of special-status wildlife species with the potential to occur within the Project site. Species were evaluated based on three factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in vicinity of the Project site, (2) species survey areas as identified by the MSHCP for the Project site; and 3) any other special-status animals that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs on the Project site.

2.2.3 Habitat Assessment for Special-Status Animal Species

GLA biologists Jeff Ahrens and Jillian Stephens conducted habitat assessments for special-status animal species on November 17, 2020. 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.

2.2.4 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 biologists April Nakagawa and David Smith conducted focused surveys for the burrowing owl for all suitable habitat areas within the Project site. 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 be conducted on separate dates between March 1 and August 31. Within areas of suitable habitat, the MSHCP also requires a focused burrow survey to map all potentially suitable burrows. The focused burrow survey was conducted on March 8, 2021. Focused burrowing owl surveys were conducted on March 8, March 23, April 12, and May 4, 2021. The burrowing owl survey visits need to be conducted from one hour prior to sunrise to two hours after sunrise or two hours before sunset to one hour after sunset.

Both the burrow and owl surveys were conducted during weather that was conducive to observing owls outside their burrows and detecting burrowing owl sign and not during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. Additionally, all work was performed more than 5 days after a rain event. Refer to Table 2-1 in Section 2.0 for survey condition details.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 7 identifies the burrowing owl survey areas at the Project site. Transects were spaced between 22 feet and 65 feet 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 320 feet 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. Transect locations are provided on Exhibit 7, along with the 500-foot buffer area. 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	Biologists	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
March 8, 2021	DS	0710/0930	46/48	0-1	Cloudy
March 23, 2021	AN	0600/0900	40/42	6-7	Partly cloudy
April 12, 2021	AN	0600/0830	51/54	7-10	Cloudy
May 4, 2021	AN	0545/0810	53/70	0-3	Clear

DS = David Smith AN = April Nakagawa

Fairy Shrimp

GLA biologist Kevin Livergood conducted a site assessment for habitat suitable for the presence of listed fairy shrimp species on December 10, 2020. Wet season sampling commenced on December 30, 2020 after a notification was submitted to the USFWS on December 16, 2020. GLA biologist Kevin Livergood (TE-172638-2) conducted the wet season survey with the objective of determining the presence or absence of federally-listed Riverside fairy shrimp (*Streptocephalus woottoni*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), and vernal pool fairy shrimp (*Branchinecta lynchi*). As a result of below-average rainfall, the identified features did not exhibit ponding suitable for fairy shrimp during the 2020-2021 wet season. Due to the lack of suitable ponding, wet season surveys were discontinued and results were inconclusive. Dry season soil collection is currently ongoing, and additional wet season sampling is scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology.

Sampling was and will be conducted per the USFWS survey protocol entitled *Survey Guidelines for the Listed Large Branchiopods* (dated November 13, 2017). Voucher specimens of listed vernal pool branchiopods collected during the survey were accessioned as indicated in the survey guidelines.

2.3 Jurisdictional Waters

The Project was delineated to identify the limits of jurisdictional waters, including waters of the U.S. (including wetlands) subject to the jurisdiction of the Corps and Regional Board, and waters of the State (including riparian vegetation) subject to the jurisdiction of CDFW. 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

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

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, wetlands (if applicable), and CDFW jurisdiction were recorded using GPS technology and/or on copies of the aerial photography. Other data were recorded onto the appropriate datasheets.

2.4 MSHCP 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 MSHCP 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 MSHCP 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.

GLA surveyed the Project site for riparian/riverine areas and vernal pool/seasonal pool habitat, including features with the potential to support listed fairy shrimp. To assess for vernal/seasonal pools (including fairy shrimp habitat), GLA biologists evaluated the topography of the site, including whether the site contained depressional features/topography with the potential to

[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.

become inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding. The site was evaluated on multiple occasions during the 2020-2021 rainfall season, including November 17, December 9, and December 10, 2020 in which several seasonal depressions were identified within the Project site; however, based on the low rainfall nature of the 2020-2021 wet season, it is currently unclear whether these depressional features support the hydrology required to support listed fairy shrimp species. Additional wet season sampling is scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology.

3.0 REGULATORY SETTING

The proposed Project is subject to state and federal laws and 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; special-status species which are not listed as threatened or endangered by the state or federal governments; and special-status vegetation communities.

3.1 Endangered Species Acts

A. 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.

B. 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.

C. State and Federal Take Authorizations

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.

D. 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 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 pursuant to Section 10(a) of the FESA.

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); animals 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).

For projects that have a federal nexus such as through federal Clean Water Act Section 404 permitting, take authorization for federally listed covered species would occur under Section 7 (not Section 10) of FESA and that USFWS would provide a MSHCP consistency review of the proposed project, resulting in a biological opinion. The biological opinion would require no more compensation than what is required to be consistent with the MSHCP.

3.2 California Environmental Quality Act

A. 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 CNPS Ranked 3 or 4.

B. 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)

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 Jurisdictional Waters

3.3.1 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), pursuant to the *Navigable Waters Protection Rule*[5] (NWPR), as:

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

(1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
(2) Tributaries;
(3) Lakes and ponds, and impoundments of jurisdictional waters; and
(4) Adjacent wetlands.

(b) Non-jurisdictional waters. The following are not ''waters of the United States'':

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

[5] U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

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

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

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

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

* 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 Arid West 2016 Regional Wetland Plant List[6],[7]);
* 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 Wetland 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.

3.3.2 Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[8] and waters of the

[6] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.

[7] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

[8] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of

State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

1. State Wetland Definition

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

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[9] *and*
3. *Artificial wetlands*[10] *that meet any of the following criteria:*
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or

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

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

[10] Artificial wetlands are wetlands that result from human activity.

d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[11]

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

3.3.3 California Department of Fish and Wildlife

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

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

[11] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board’s authority to issue or waive waste discharge requirements or take other actions as applicable.

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

4.0 RESULTS

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

Topography within the 65.43-acre Project site consists of gently sloping hills with elevations ranging from approximately 2,365 to 2,450 feet above mean sea level (AMSL). Historical use of the site is unclear, but it was likely grazed, as is evident from the dominant non-native grassland community and typical land use in this region. Remnant patches of native scrub habitat occur throughout the site; however, much of the site is disturbed via authorized construction activities and unauthorized recreational motorized vehicle use. The Project site is conceptually divided into northern and southern segments by an active construction project which is currently developing a segment of West 4th Street through the center of the Project site. This construction activity is associated with the adjacent ongoing development project occurring immediately west of the site and is not a part of this Project or being constructed by the Project proponent.

Two blue-line drainages are mapped with the Project site. An ephemeral, incised drainage, which receives stormwater flows from Potrero Boulevard occurs in the in the northern portion of the site; and Cooper's Creek, a perennial stream supporting a mature riparian vegetation community occurs in the southern portion of the site. The two drainages converge downstream of the western Project boundary.

Although the entire Project site was delineated and mapped according to vegetation community, it is important to note that biological survey efforts, including focused plant and animal surveys, were concentrated on areas within the Project footprint. These areas, as identified on Exhibit 3, are proposed for direct impact by the Project, whereas the southern portion of the Project site is avoided and will therefore not be impacted by the proposed Project.

The National Cooperative Soil Survey (NCSS) has identified the following soil types as occurring (currently or historically) within the Project site [Exhibit 10]: Badland; Greenfield

sandy loam, 2 to 8 percent slopes, eroded; Placentia fine sandy loam, 5 to 15 percent slopes, eroded; Ramona Sandy Loam, 2 to 5 percent slopes, eroded; Riverwash; San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded; San Emigdio loam, 2 to 8 percent slopes; and Terrace escarpments.

4.2 Vegetation Mapping

The Project site supports the following vegetation community/land cover types: Non-Native Grassland, Riversidean Sage Scrub, Scrub Oak Chaparral, Willow Riparian Forest, and Disturbed/Developed. Table 4-1 provides a summary of the vegetation community/land cover types and their corresponding acreage. Descriptions of each follow the table. A Vegetation Map is included as Exhibit 5. Photographs depicting the Project site are shown in Exhibit 9.

Table 4-1. Summary of Vegetation Community/Land Cover for the Project Site

VEGETATION COMMUNITY/LAND COVER	PROJECT SITE (acres)
Non-Native Grassland	26.78
Riversidean Sage Scrub	6.23
Scrub Oak Chaparral	7.05
Willow Riparian Forest	6.12
Disturbed/Developed	19.26
Total	**65.43**

Non-Native Grassland
The Project site supports 26.78 acres of non-native grassland. This plant community covers the majority of the Project site, as well as adjacent undeveloped lands to the east and west. The non-native grassland areas do not appear to be routinely disked or mowed at this time; however, a mosaic of unauthorized recreational off-roading trails is interspersed throughout the non-native grassland, indicating a level of routine disturbance throughout the habitat. The non-native grassland is dominated by invasive grass species including ripgut brome (*Bromus diandrus*), slim oat (*Avena barbata*), and red brome (*Bromus rubens*). Other commonly occurring species include common fiddleneck (*Amsinckia intermedia*), Palmer goldenweed (*Ericameria palmeri*), doveweed (*Croton setiger*), and annual bur-sage (*Ambrosia acanthicarpa*).

Riversidean Sage Scrub
The Project site supports 6.23 acres of Riversidean sage scrub scattered throughout the site in multiple, disjunct patches. These areas are primarily dominated with Mojave Desert California buckwheat (*Eriogonum fasciculatum* var. *polifolium*); however, other commonly occurring species include California sagebrush (*Artemisia californica*), chamise (*Adenostoma fasciculatum*), and white sage (*Salvia apiana*).

Scrub Oak Chaparral
The Project site supports 7.05 acres of scrub oak chaparral scattered throughout the site in multiple, disjunct patches. The canopy is primarily dominated with small, shrubby scrub oaks (*Quercus berberidifolia*), with redberry (*Rhamnus crocea*), sugar bush (*Rhus ovata*), fragrant

sumac (*Rhus aromatica*) and *Ceanothus* sp. also commonly occurring throughout this plant community. The understory is dominated with ripgut brome, common phacelia (*Phacelia distans*), miner's lettuce (*Claytonia parviflora*), and goose grass (*Galium aparine*).

Willow Riparian Forest
The Project site supports 6.12 acres of willow riparian forest associated with Cooper's Creek, a perennial stream which traverses the southern portion of the Project site. The tree canopy is primarily dominated with black willow (*Salix gooddingii*), red willow (*Salix laevigata*), Southern California black walnut (*Juglans californica*), Fremont cottonwood (*Populus fremonti*), and blue elderberry (*Sambucus nigra* ssp. *caerulea*). The riparian understory is comprised of mule fat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica*), Southern California grape (*Vitis girdiana*), and cattail (*Typha* sp.).

Disturbed/Developed
The Project site supports 19.26 acres of disturbed and developed areas scattered throughout. These areas consist of unpaved trails established by unauthorized recreational motorized vehicles, active construction associated with the development of West 4th Street, and multiple associated equipment staging areas. The disturbed and developed areas within the Project site are generally devoid of vegetation.

4.3 Special-Status Vegetation Communities

The CNDDB identifies the following ten special-status vegetation communities for the El Casco, California and surrounding quadrangle maps: Canyon Live Oak Ravine Forest, Desert Fan Palm Oasis Woodland, Riversidean Alluvial Fan Sage Scrub, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Mixed Riparian Forest, Southern Riparian Forest, Southern Riparian Scrub, Southern Sycamore Alder Riparian Woodland, and Southern Willow Scrub.

As identified on Exhibit 5, the Project site contains Willow Riparian Forest within the avoided portion, south of the Project footprint, in association with Cooper's Creek. This community constitutes a special-status vegetation type.

4.4 Special-Status Plants

Table 4-2 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, 2) applicable MSHCP survey areas, and 3) 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 4-2. Special-Status Plants Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Potential for Occurrence
Borrego milk-vetch *Astragalus lentiginosus* var. *borreganus*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Sandy soils in Mojavean desert scrub and Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
California satintail *Imperata brevifolia*	Federal: None State: None CNPS: Rank 2B.1 MSHCP: None	Mesic soils in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), and riparian scrub.	Does not occur within the Project footprint due to lack of suitable habitat and soils.
California screw moss *Tortula californica*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Sandy soil in chenopod scrub, and valley and foothill grassland.	Does not occur due to lack of suitable habitat.
Chaparral sand verbena *Abronia villosa* var. *aurita*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Sandy soils in chaparral, coastal sage scrub.	Not expected to occur.
Coachella Valley milk-vetch *Astragalus lentiginosus* var. *coachellae*	Federal: FE State: None CNPS: Rank 1B.2 MSHCP: None	Desert dunes, sandy Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
Colorado Desert larkspur *Delphinium parishii* ssp. *subglobosum*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Playas, vernal pools, marshes and swamps (coastal salt).	Does not occur due to lack of suitable habitat.
Crowned muilla *Muilla coronata*	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland	Does not occur due to lack of suitable habitat.
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP (d)	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Does not occur due to lack of suitable habitat and soils.
Davidson's stonecrop *Sedum niveum*	Federal: None State: None CNPS: Rank 4.2 MSHCP: Not covered	Rocky soils in lower and upper montane coniferous forest, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.
Duran's rush *Juncus duranii*	Federal: None State: None CNPS: Rank 4.3 MSHCP: Not covered	Mesic soils in lower and upper montane coniferous forests, meadows and seeps.	Does not occur due to lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Hall's monardella *Monardella macrantha* ssp. *hallii*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: MSHCP	Occurs on dry slopes and ridges within openings in broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, and valley and foothill grassland.	Does not occur due to lack of suitable habitat.
Heart-leaved pitcher sage *Lepechinia cardiophylla*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(d)	Closed-cone coniferous forest, chaparral, and cismontane woodland.	Does not occur due to lack of suitable habitat.
Heckard's paintbrush *Castilleja montigena*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest	Does not occur due to lack of suitable habitat.
Jaeger's (bush) milk-vetch *Astragalus pachypus* var. *jaegeri*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP	Sandy or rocky soils in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	Not expected to occur.
Johnston's bedstraw *Galium johnstonii*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Chaparral, lower montane coniferous forest, pinyon and juniper woodland, riparian woodland.	Does not occur due to lack of suitable habitat.
Johnston's monkeyflower *Diplacus (Mimulus) johnstonii*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Lower montane coniferous forest (scree, disturbed areas, rocky or gravelly soil, roadsides)	Does not occur due to lack of suitable habitat.
Laguna Mountains jewelflower *Streptanthus bernardinus*	Federal: None State: None CNPS: Rank 4.3 MSHCP: Not covered	Chaparral and lower montane coniferous forest.	Does not occur due to lack of suitable habitat.
Lemon lily *Lilium parryi*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP (f)	Mesic soils in lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest.	Does not occur within the Project footprint due to lack of suitable habitat.
Little mousetail *Myosurus minimus* ssp. *apus*	Federal: None State: None CNPS: Rank 3.1 MSHCP: MSHCP (d)	Valley and foothill grassland, vernal pools (alkaline soils).	Does not occur due to lack of suitable habitat and soils.
Little purple monkeyflower *Erythranthe (Mimulus) purpurea*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Meadows and seeps, pebble (pavement) plain, and upper montane coniferous forest.	Does not occur due to lack of suitable habitat.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Does not occur due to lack of suitable habitat.
Many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP (b)	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Confirmed absent during focused plant surveys.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Marsh sandwort *Arenaria paludicola*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: None	Bogs and fens, freshwater marshes and swamps.	Does not occur due to lack of suitable habitat.
Mesa horkelia *Horkelia cuneata* var. *puberula*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub.	Does not occur due to lack of suitable habitat.
Mojave tarplant *Deinandra mohavensis*	Federal: None State: SE CNPS: Rank 1B.3 MSHCP: MSHCP (e)	Chaparral (mesic soils) and riparian scrub.	Does not occur within the Project footprint due to lack of suitable habitat.
Mount Pinos larkspur *Delphinium parryi* ssp. *purpureum*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Chaparral, Mojavean desert scrub, pinyon and juniper woodland.	Does not occur due to lack of suitable habitat.
Mud nama *Nama stenocarpum*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: MSHCP (d)	Marshes and swamps	Does not occur due to lack of suitable habitat.
Narrow-leaf sandpaper-plant *Petalonyx linearis*	Federal: None State: None CNPS: Rank 2B.3 MSHCP: None	Sandy or rocky canyons, Mojavean desert scrub, and Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
Narrow-petaled rein orchid *Piperia leptopetala*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest.	Does not occur due to lack of suitable habitat.
Nevin's barberry *Berberis nevinii*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub.	Confirmed absent. This species is a perennial shrub and would have been detected if present.
Ocellated humboldt lily *Lilium humboldtii* ssp. *ocellatum*	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP (f)	Chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, riparian woodland. Occurring in openings.	Does not occur within the Project footprint due to lack of suitable habitat.
Palmer's mariposa lily *Calochortus palmeri* var. *palmeri*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Mesic soils in chaparral, lower montane coniferous forest, and meadows and seeps.	Does not occur due to lack of suitable habitat.
Paniculate tarplant *Deinandra paniculata*	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Usually in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	Confirmed absent during focused plant surveys.
Parish's alumroot *Heuchera parishii*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: Not covered	Rocky, sometimes carbonate soils in alpine boulder and rock field, lower and upper montane coniferous forest, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Chenopod scrub, playas, vernal pools.	Does not occur due to lack of suitable habitat.
Parish's bush-mallow *Malacothamnus parishii*	Federal: None State: None CNPS: Rank 1A MSHCP: None	Chaparral and coastal scrub	Species presumed extinct.
Parish's checkerbloom *Sidalcea hickmanii* ssp. *parishii*	Federal: None State: Rare CNPS: Rank 1B.2 MSHCP: None	Chaparral, cismontane woodland, and lower montane coniferous forest.	Does not occur due to lack of suitable habitat.
Parish's gooseberry *Ribes divaricatum* var. *parishii*	Federal: None State: None CNPS: Rank 1A MSHCP: None	Riparian woodland	Species presumed extinct[12].
Parish's rupertia *Rupertia rigida*	Federal: None State: None CNPS: Rank 4.3 MSHCP: Not covered	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble (pavement) plain, valley and foohill grassland.	Does not occur due to lack of suitable habitat.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Confirmed present.
Peninsular spineflower *Chorizanthe leptotheca*	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Alluvial fan, granitic. Chaparral, coastal scrub, lower montane coniferous forest.	Does not occur due to lack of suitable habitat and soils.
Peruvian dodder *Cuscuta obtusiflora var. glandulosa*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Marshes and swamps (freshwater). Annual vine (parasitic). Blooming period July - October.	Does not occur due to lack of suitable habitat.
Plummer's mariposa lily *Calochortus plummerae*	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland.	Confirmed absent during focused plant surveys.
Pygmy hulsea *Hulsea vestita* ssp. *pygmaea*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Granitic, gravelly soils in alpine boulder and rock field, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.

[12] Calflora: Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2021. Berkeley, California: The Calflora Database [a non-profit organization]. Available: https://www.calflora.org/

Species Name	Status	Habitat Requirements	Potential for Occurrence
Robinson's pepper grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CNPS: Rank 4.3 MSHCP: Not covered	Chaparral, coastal sage scrub.	Confirmed absent during focused plant surveys.
Rock sandwort *Arenaria lanuginosa var. saxosa*	Federal: None State: None CNPS: Rank 2B.3 MSHCP: None	Mesic and sandy soils in subalpine coniferous forest and upper montane coniferous forest.	Does not occur due to lack of suitable habitat.
Rock-loving oxytrope *Oxytropis oreophila* var. *oreophila*	Federal: None State: None CNPS: Rank 2B.3 MSHCP: None	Gravelly or rocky soils in alpine boulder and rock field, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.
Salt marsh bird's-beak *Chloropyron maritimum* ssp. *maritimum*	Federal: FE State: SE CNPS: Rank 1B.2 MSHCP: None	Coastal dune, coastal salt marshes and swamps.	Does not occur due to lack of suitable habitat.
Salt Spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: Not covered	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	Does not occur due to lack of suitable habitat and soils.
San Bernardino aster *Symphotrichum defoliatum*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Does not occur due to lack of suitable habitat.
San Bernardino gilia *Gilia leptantha* ssp. *leptantha*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Lower montane coniferous forest (sandy or gravelly).	Does not occur due to lack of suitable habitat.
San Bernardino grass-of Parnassus *Parnassia cirrata* var. *cirrata*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Mesic, streamsides, sometimes calcareous. Lower montane coniferous forest, meadows and seeps, upper montane coniferous forest.	Does not occur due to lack of suitable habitat.
San Bernardino Mountains owl's-clover *Castilleja lasiorhyncha*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Mesic soils in chaparral, meadows and seeps, pebble (pavement) plain, riparian woodland, and upper montane coniferous forest.	Does not occur within the Project footprint due to lack of suitable habitat.
San Gabriel ragwort *Senecio astephanus*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Rocky slopes, coastal bluff scrub, chaparral.	Does not occur due to lack of suitable habitat.
San Jacinto Mountains bedstraw *Galium angustifolium* ssp. *jacinticum*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: MSHCP (b)	Lower montane coniferous forest.	Does not occur due to lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
San Jacinto Valley crownscale *Atriplex coronata* var. *notatior*	Federal: FE State: None CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Does not occur due to lack of suitable habitat.
Scalloped moonwort *Botrychium crenulatum*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Bogs and fens, lower and upper montane coniferous forest, meadows and seeps, marshes and swamps (freshwater).	Does not occur due to lack of suitable habitat.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Does not occur due to lack of suitable habitat.
Small-flowered morning-glory *Convolvulus simulans*	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Chaparral (openings), coastal sage scrub, valley and foothill grassland. Occurring on clay soils and serpentinite seeps.	Does not occur due to lack of suitable habitat.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats.	Does not occur within the Project footprint due to lack of suitable habitat and soils.
South coast saltscale *Atriplex pacifica*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas.	Does not occur due to lack of suitable habitat.
Southern alpine buckwheat *Eriogonum kennedyi* var. *alpigenum*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Granitic and gravelly soils in alpine boulder and rock field, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.
Southern California black walnut *Juglans californica*	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces.	Confirmed present in Cooper's Creek, outside of Project footprint.
Southern jewelflower *Streptanthus campestris*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: Not covered	Rocky soils in chaparral, lower montane coniferous forest, and pinyon and juniper woodland.	Does not occur due to lack of suitable habitat.
Spiny-hair blazing star *Mentzelia tricuspis*	Federal: None State: None CNPS: Rank 2B.1 MSHCP: None	Sandy, gravelly, slopes, and washes. Mojavean desert scrub.	Does not occur due to lack of suitable habitat.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CNPS: Rank 1B.1 MSHCP: MSHCP (b)	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Does not occur due to lack of suitable habitat.
Thread-leaved brodiaea *Brodiaea filifolia*	Federal: FT State: SE CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	Not expected to occur.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Torrey's box-thorn *Lycium torreyi*	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Sandy, rocky, washes, streambanks, desert valleys. Mojavean desert scrub and Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
Vernal barley *Hordeum intercedens*	Federal: None State: None CNPS: Rank 3.2 MSHCP: MSHCP	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	Does not occur due to lack of suitable habitat.
White rabbit-tobacco *Pseudognaphalium leucocephalum*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Coastal sage scrub and chaparral	Confirmed absent during focused plant surveys.
White-bracted spineflower *Chorizanthe xanti* var. *leucotheca*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Sandy or gravelly soils in Mojavean desert scrub and pinyon and juniper woodland.	Does not occur due to lack of suitable habitat.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	Federal: None State: None CNPS: Rank 2B.1 MSHCP: MSHCP(b)	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Does not occur due to lack of suitable habitat.
Yucaipa onion *Allium marvinii*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(b)	Chaparral (clay, openings).	Confirmed absent.

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)

MSHCP
MSHCP = No additional action necessary
MSHCP(a) = Surveys may be required as part of wetlands mapping
MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area
MSHCP(c) = Surveys may be required within locations shown on survey maps
MSHCP(d) = Surveys may be required within Criteria Area
MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species

MSHCP(f) = Covered species when a Memorandum of Understanding is executed with the Forest Service Land

OCCURRENCE

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
- Confirmed absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- 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 based on suitable habitat, however its presence/absence has not been confirmed.
- Confirmed present – The species was detected onsite incidentally or through focused surveys

4.4.1 Special-Status Plant Results

The following special-status plants were detected at the Project site: Parry's spineflower (*Chorizanthe parryi* var. *parryi*) and Southern California black walnut (*Juglans californica*).

It is important to note that the 2020-2021 rainy season resulted in exceptionally low precipitation for the entire greater Southern California region, and as such, some plant species may not have had enough resources to produce the vegetative matter, flowers, and/or fruit needed to identify and confirm the presence of certain species. Although plant species of multiple growth forms (i.e., annual herbs and perennial bulbiferous herbs) were observed on site, GLA biologists also made substantial efforts to visit reference populations for target species when possible and utilized resources such as local herbaria and the California Consortia of Herbaria to determine the annual occurrences of such plant species throughout the region. This tracking of local flora phenology and occurrences allowed GLA biologists to make confident decisions on the confirmed absence of specific plant species during this drought condition.

Parry's spineflower (*Chorizanthe parryi* var. *parryi*) – This species is a member of the buckwheat family (Polygonaceae) and is designated as a CNPS List 1B.1 species but is not state or federally listed. Parry's spineflower is fully covered under the MSHCP. This annual herb is known to occur in chaparral, cismontane woodland, coastal scrub, and in rocky or sandy openings in foothill valleys and grasslands from 275 to 1,220 meters (900 to 4,001 feet) AMSL. Parry's spineflower is known to occur from Los Angeles, Riverside, and San Bernardino counties and is known to bloom from April through June.

Approximately 1,500 Parry's spineflower individuals were observed in a single population at the southern boundary of the Project footprint. The population was observed in a patch of Riversidean sage scrub, as identified on Exhibit 6, during focused plant surveys conducted on April 14 and May 4, 2021. The Parry's spineflower population on site was observed in flower and fruiting.

Southern California black walnut (*Juglans californica*) – This species is a member of the walnut family (Juglandiaceae) and is designated as a CNPS List 4.2 species but is not state or federally listed. This perennial deciduous tree is known to occur in chaparral, cismontane

woodland, and coastal scrub from 50 to 900 meters (165 to 2,952 feet) AMSL. Southern California black walnut is known to occur from Santa Barbara, Ventura, Los Angeles, Riverside, San Bernardino, Orange, and San Diego counties, and is known to bloom from March through August.

Multiple Southern California black walnut individuals occur within the riparian habitat associated with Cooper's Creek, which traverses the southern portion of the Project site. These trees were observed during the habitat assessment on November 17, 2020 and during the jurisdictional delineation on December 9, 2020. Individual trees were not mapped as part of the focused plant survey effort since this entire portion of the Project site will be avoided by the proposed Project, and as noted above, biological survey efforts were concentrated on the proposed Project footprint.

In addition, the Project site occurs within MSHCP NEPSSA designated survey area 8; therefore, the following target species were evaluated: many-stemmed dudleya and Yucaipa onion. Although these species are not fully covered by the MSHCP, no impacts to either species will result from the Project (see discussion below); therefore, there are no Project-related impacts under CEQA.

Many-stemmed dudleya (*Dudleya multicaulis*) – This species is a member of the stonecrop family (Crassulaceae) and is designated as a CNPS List 1B.2 species but is not a federal or state listed species. This perennial herb is known to occur in chaparral, coastal scrub, and valley and foothill grasslands. It is often associated with clay soils. Many-stemmed dudleya is known to occur from Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties from 15 to 790 meters (50 to 2,590 feet) AMSL. This species is known to bloom from April through July.

Although many-stemmed dudleya was determined to have low potential to occur within the Project site prior to conducting focused surveys, this species was confirmed absent during focused rare plant surveys performed by GLA in spring of 2021. Multiple reference sites of known populations of many-stemmed dudleya were visited during spring of 2021 at which time this species was observed in all phenology forms (e.g., vegetative, blooming, and fruiting) and observed supporting stable population numbers. As such, despite the low rainfall year, it has been determined that this species is absent from the Project site.

Yucaipa onion (*Allium marvinii*) – This species is a member of the lily family (Liliaceae) and is designated as a CNPS List 1B.1 species but is not a state or federally listed species. This perennial herb is known to occur in clay openings within chaparral from 760 to 1,065 meters (2,492 to 3,493 feet) AMSL. Yucaipa onion is known to occur from the Beaumont and Yucaipa areas of Riverside County and is known to bloom from April through May.

Yucaipa onion was determined to have very low potential to occur within the Project site prior to conducting focused surveys, as soils did not exhibit strong clay characteristics and elevation onsite occurs just outside the species' indicated range. A reference site for Yucaipa onion was not visited by GLA biologists; however, the University of California, Irvine Herbarium

vouchered a specimen of Yucaipa onion blooming in May of 2021[13]. Due to the species having very low potential to occur on site, as well as the species having a successful blooming year despite regional drought conditions, it has been determined that Yucaipa onion is absent from the Project site.

Other special-status plant species determined to have a potential to occur within the Project footprint prior to conducting focused surveys were either confirmed absent through the focused rare plant surveys, or are not expected to occur due to very low potential combined with disturbed site conditions, as noted in Table 4-2 above.

4.5 Special-Status Animals

Table 4-3 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.

The federally and state Endangered Least Bell's vireo was detected within the Project site, within avoided riparian habitat approximately 50 to 320 feet south of the Project footprint. In addition, multiple non-listed special-status species have potential to occur within the Project site but were not detected or observed during biological surveys. Following the table, detailed discussions of those species that require further biological explanation in relation to the Project site are provided.

Table 4-3. Special-Status Animals Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Potential for Occurrence
Invertebrates			
Crotch bumble bee *Bombus crotchii*	Federal: None State: SSC MSHCP: None	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Low to moderate potential to occur within the Project site.
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: FE State: None MSHCP: MSHCP(a)	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Low potential to occur within the Project footprint.
San Diego fairy shrimp *Branchinecta sandiegonensis*	Federal: FE State: None MSHCP: None	Seasonal vernal pools.	Low potential to occur within the Project footprint.
vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None MSHCP: MSHCP(a)	Seasonal vernal pools.	Low potential to occur within the Project footprint.

[13] Biodiversity occurrence data published by: IRVC - University of California, Irvine Herbarium (Accessed through CCH2 Portal Data Portal, https://cch2.org/portal/index.php, July 2021)

Species Name	Status	Habitat Requirements	Potential for Occurrence
Fish			
Santa Ana speckled dace *Rhinichthys osculus* ssp. *3*	Federal: None State: SSC MSHCP: Not covered	Occurs in the headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temperatures of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Does not occur due to lack of suitable habitat.
Southern steelhead - southern California DPS *Oncorhynchus mykiss irideus*	Federal: FE State: None MSHCP: None	Clear, swift moving streams with gravel for spawning. Federal listing refers to populations from Santa Maria river south to southern extent of range (San Mateo Creek in San Diego county.)	Does not occur due to lack of suitable habitat.
Amphibians			
Southern mountain yellow-legged frog *Rana muscosa*	Federal: FE State: SE MSHCP: MSHCP (c)	Streams and small pools in ponderosa pine, montane hardwood-conifer, and montane riparian habitat types.	Does not occur due to lack of suitable habitat.
Western spadefoot *Spea hammondii*	Federal: None State: SSC MSHCP: MSHCP	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Low potential to occur within the Project site.
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC MSHCP: Not Covered	Occurs interior coast range and southwestern desert regions	Low potential to occur within the Project site.
California mountain kingsnake (San Bernardino population) *Lampropeltis zonata (parvirubra)*	Federal: None State: WL MSHCP: MSHCP (f)	Bigcone spruce and chaparral at lower elevations. Black oak, incense cedar, Jeffery pine, and ponderosa pine at higher elevations.	Does not occur due to lack of suitable habitat.
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC MSHCP: MSHCP	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Low to moderate potential to occur within the Project site.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	Federal: None State: SSC MSHCP: Not covered	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Low potential to occur within the Project site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Coastal whiptail *Aspidoscelis tigris stejnegeri (multiscutatus)*	Federal: None State: SSC MSHCP: MSHCP	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Low to moderate potential to occur within the Project site.
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC MSHCP: MSHCP	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Moderate potential to occur within the Project site.
Southern California legless lizard *Anniella stebbinsi*	Federal: None State: SSC MSHCP: Not Covered	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub; found in a broader range of habitats that any of the other species in the genus. Often locally abundant, specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans	Low potential to occur within the Project site.
Southern rubber boa *Charina umbratica*	Federal: None State: ST MSHCP: MSHCP (f)	Restricted to the San Bernardino and San Jacinto Mountain, in a variety of montane forest habitats. Found in vicinity of streams or wet meadows. Requires loose, moist soil for burrowing. Seeks cover in rotting logs.	Does not occur within the Project site due to a lack of suitable habitat.
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	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Moderate to high potential to occur within the avoided riparian habitat in the southern portion of the Project site.
Western pond turtle *Emys marmorata*	Federal: None State: SSC MSHCP: MSHCP	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Not expected to bask or breed on site. Low potential for dispersal through the avoided riparian habitat in the southern portion of the Project site.
Birds			
Bell's sage sparrow *Artemisiospiza belli belli*	Federal: BCC State: WL MSHCP: MSHCP	Chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains.	Moderate potential to occur within the Project site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Black swift (nesting) *Cypseloides niger*	Federal: BCC State: SSC MSHCP: MSHCP	Nests in forested areas near rivers in dark, damp areas. Forages in skies over mountainous areas and on coastal cliffs.	Does not occur within the Project site due to a lack of suitable habitat.
Burrowing owl *Athene cunicularia*	Federal: None State: SSC MSHCP: MSHCP(c)	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.	Confirmed absent during focused surveys.
Coastal cactus wren (San Diego & Orange County only) *Campylorhynchus brunneicapillus sandiegensis*	Federal: BCC State: SSC MSHCP: MSHCP	Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.	Not expected to occur within the Project site due to a trace amount of cactus on site and a general lack of suitable habitat.
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC MSHCP: MSHCP	Low elevation coastal sage scrub and coastal bluff scrub.	Low potential to occur within the Project site within the limited areas of buckwheat scrub habitat.
Ferruginous hawk (wintering) *Buteo regalis*	Federal: BCC State: WL MSHCP: MSHCP	Open, dry country, perching on trees, posts, and mounds. In California, wintering habitat consists of open terrain and grasslands of the plains and foothills.	Does not nest on site. Low potential to occur within the Project site during winter only.
Golden eagle (nesting and wintering) *Aquila chrysaetos*	Federal: None State: CFP MSHCP: MSHCP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Does not nest on site due to a lack of suitable habitat. Low potential to forage on site due to the general lack of vast open foraging habitat.
Least Bell's vireo *Vireo bellii pusillus*	Federal: FE State: SE MSHCP: MSHCP(a)	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Detected in 2019 by Jericho Systems, Inc. in the avoided riparian habitat in the southern portion of the Project site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Loggerhead shrike (nesting) *Lanius ludovicianus*	Federal: BCC State: SSC MSHCP: MSHCP	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.	Moderate to high potential to nest and forage within the Project site.
Purple martin (nesting) *Progne subis*	Federal: None State: SSC MSHCP: MSHCP	Forage over towns, cities, parks, open fields, dunes, streams, wet meadows, beaver ponds, and other open areas. Nest in woodpecker holes in mountain forests or Pacific lowlands.	Not expected to occur due to a lack of suitable habitat.
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	Federal: FE State: SE MSHCP: MSHCP(a)	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Low to moderate potential to occur within the avoided riparian habitat in the southern portion of the Project site.
Swainson's hawk (nesting) *Buteo swainsoni*	Federal: None State: ST MSHCP: MSHCP	Occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys for hunting and uses perches.	Not expected to nest within the Project site. Potential to occur for foraging only.
Tricolored blackbird (nesting colony) *Agelaius tricolor*	Federal: BCC State: CE, SSC MSHCP: MSHCP	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	Does not occur in the proposed Project footprint due to a lack of suitable habitat. Not expected to occur within the overall Project site due to the absence of suitable emergent vegetation. May forage on site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	Federal: FT, BCC State: SE MSHCP: MSHCP(a)	Dense, wide riparian woodlands with well-developed understories.	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Not expected to occur in the avoided riparian habitat in the southern portion of the Project site due to a lack of cottonwood/willow dominant habitat combined with the small linear nature of the riparian habitat. In California, cuckoos generally require cottonwood/willow habitat blocks approximately 200 acres in size and rarely occur in riparian habitat less than 50 acres in size.
White-faced ibis (nesting colony) *Plegadis chihi*	Federal: None State: WL MSHCP: MSHCP	Winter foraging occurs in wet meadows, marshes, ponds, lakes, rivers, and agricultural fields. Requires extensive marshes for nesting.	Does not occur within the Project site due to a lack of suitable habitat.
White-tailed kite (nesting) *Elanus leucurus*	Federal: None State: CFP MSHCP: MSHCP	Winter foraging occurs in wet meadows, marshes, ponds, lakes, rivers, and agricultural fields. Requires extensive marshes for nesting.	Does not nest within the proposed Project footprint due to a lack of suitable habitat. Low to moderate potential to nest within the avoided riparian habitat in the southern portion of the Project site. May use the entire site for foraging.
Yellow warbler (nesting) *Setophaga petechia*	Federal: BCC State: SSC MSHCP: MSHCP	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.	Does not occur in the proposed Project footprint due to a lack of suitable habitat. Moderate to high potential to occur within the avoided riparian habitat in the southern portion of the Project site, and may forage within the Project footprint, as this species is a habitat generalist during migration.
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: SSC MSHCP: MSHCP	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur in the proposed Project footprint due to a lack of suitable habitat. Low to moderate potential to occur within the avoided riparian habitat in the southern portion of the Project site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Yellow-headed blackbird (nesting) *Xanthocephalus xanthocephalus*	Federal: None State: SSC MSHCP: None	Breed and roost in freshwater wetlands with dense, emergent vegetation such as cattails. Often forage in fields, typically wintering in large, open agricultural areas.	Does not occur in the proposed Project footprint due to a lack of suitable habitat. Not expected to occur within the overall Project site due to the absence of suitable emergent vegetation. May forage on site.
Mammals			
American badger *Taxidea taxus*	Federal: None State: SSC MSHCP: Not covered	Most abundant in drier open stages of most scrub, forest, and herbaceous habitats, with friable soils.	Confirmed absent in a live-in habitat role. Low potential to occur within the Project site for foraging only. No burrows were detected during biological surveys.
Dulzura pocket mouse *Chaetodipus califronicus femoralis*	Federal: None State: SSC MSHCP: Not covered	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	Low to moderate potential to occur within the Project site within limited areas of suitable habitat.
Lesser long-nosed bat *Leptonycteris yerbabuenae*	Federal: FE State: None WBWG: H MSHCP: None	Thorn scrub and deciduous forest. Roosts in caves and mines.	Not expected to occur within the Project site due to a lack of suitable habitat.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: SSC MSHCP: MSHCP(c)	Fine, sandy soils in coastal sage scrub and grasslands.	A Phase 1 habitat assessment conducted by Envira, Inc. determined that suitable habitat does not occur within the Project site [Appendix C].
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: SSC MSHCP: MSHCP	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Low to moderate potential to occur within the Project site within limited areas of suitable habitat.
Pallid bat *Antrozous pallidus*	Federal: None State: SSC WBWG: H MSHCP: Not covered	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	Does not roost in the proposed Project footprint due to a lack of suitable habitat. Potential to occur within the overall Project site for foraging.
Pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: SSC WBWG: M MSHCP: Not covered	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	Not expected to occur within the Project site due to a general lack of suitable habitat.
San Bernardino flying squirrel *Glaucomys oregonensis californicus*	Federal: None State: SSC MSHCP: MSHCP (e)	Black oak or white fir dominated woodlands between 5,200 and 8,500 feet in the San Bernardino and San Jacinto Mountain ranges.	Does not occur within the Project site due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SSC MSHCP: MSHCP(c)	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Does not occur within the Project site due to a lack of suitable habitat.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: SSC MSHCP: MSHCP	Occupies a variety of habitats, but is most common among shortgrass habitats. Also occurs in sage scrub, but needs open habitats.	Low to moderate potential to occur within the Project site.
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC MSHCP: MSHCP	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Confirmed absent. No woodrat homes (middens) were observed during biological surveys.
Southern grasshopper mouse *Onychomys torridus ramona*	Federal: None State: SSC MSHCP: Not covered	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Low potential to occur within the Project site.
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST MSHCP: MSHCP	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Low potential to occur within the Project site.
Townsend's big-eared bat *Corynorhinus townsendii*	Federal: None State: SSC WBWG: H MSHCP: None	Coniferous forests and woodlands, deciduous riparian woodland, semi-desert and montane shrublands.	Not expected to occur within the Project site due to a general lack of suitable habitat.
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 roost within the Project site due to a general lack of suitable habitat. Potential to occur within the overall Project site for foraging.
Western yellow bat *Lasiurus xanthinus*	Federal: None State: SSC WBWG: H MSHCP: Not Covered	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Not expected to roost within the Project site due to a general lack of suitable habitat. Potential to occur within the overall Project site for foraging.

STATUS

Federal
FE – Federally Endangered
FT – Federally Threatened
FPT – Federally Proposed Threatened
FC – Federal Candidate
BCC – Bird of Conservation Concern

State
SE – State Endangered
ST – State Threatened
SCE – State Candidate for listing as Endangered
CFP – California Fully-Protected Species
SSC – Species of Special Concern

MSHCP
MSHCP = No additional action necessary
MSHCP(a) = Surveys may be required as part of wetlands mapping
MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area
MSHCP(c) = Surveys may be required within locations shown on survey maps
MSHCP(d) = Surveys may be required within Criteria Area
MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species
MSHCP(f) = Covered species when a Memorandum of Understanding is executed with the Forest Service Land
Not Covered = Species not adequately conserved under MSHCP
None = Species not considered for conservation coverage under MSHCP

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

OCCURRENCE

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
- Confirmed absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- 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 based on suitable habitat, however its presence/absence has not been confirmed.
- Confirmed present – The species was detected onsite incidentally or through focused surveys

4.5.1 Special-Status Wildlife Species Observed or Confirmed Absent within the Project Site

Least Bell's Vireo (*Vireo bellii pusillus*) – This bird is a state and federally listed Endangered (FE/SE) species and is a Covered Species under the MSHCP, for which additional surveys are required. The least Bell's vireo (LBV) primarily nests in riparian vegetation typically dominated by willows and mule fat but may also use a variety of shrubs, trees, and vines. The birds forage in riparian and adjoining chaparral or scrub habitat. Nests are typically built within one meter of the ground in the fork of willows, mule fat, or other understory vegetation. Cover surrounding nests is moderately open midstory with an overstory of willow, cottonwood, sycamore, or oak. The most critical structural component to LBV breeding habitat is a dense shrub layer at 2 to 10 feet above the ground surface. During the spring and fall migration, the species occupies a wider range of habitats including coastal sage scrub, riparian, and woodland habitats.

Jericho Systems, Inc. conducted a biological resources assessment in April of 2019, at which time three LBV individuals were detected calling from the willow riparian forest associated with Cooper's Creek in the southern portion of the Project site. Suitable nesting and breeding habitat for this species is limited to the willow riparian forest in the southern portion of the Project site, all of which will be avoided by the proposed Project with a buffer ranging from approximately 50 to 320 feet. Since 100 percent of the habitat that is occupied or potentially occupied by LBV

will be avoided by the proposed Project, and habitat that represents long-term conservation value for LBV will not be impacted by the proposed Project, GLA biologists did not conduct focused surveys for LBV. Regardless, a project-specific measure for avoiding work during the LBV nesting season is provided below in Section 6.

Burrowing Owl (*Athene cunicularia*) – The burrowing owl is designated as a CDFW Species of Special Concern (SSC). The burrowing owl is a covered species not adequately conserved under the MSHCP, which means that projects located within the MSHCP Burrowing Owl Survey Area may have to evaluate avoidance appropriate conservation/avoidance measures if burrowing owls are present. The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident (Haug, *et al.* 1993). They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. As a key habitat feature in Southern California, this species requires the use of rodent or other burrows for roosting and nesting cover.

As described in Section 2.2.4, the Project site occurs within the MSHCP Burrowing Owl Survey Area, and suitable habitat for the species occurs throughout the site in the ruderal and disturbed areas, including the presence of California ground squirrel (*Otospermophilus beecheyi*) burrows [Exhibit 7]. As such, focused surveys were conducted pursuant to the MSHCP in March, April, and May of 2021. GLA biologists did not observe burrowing owls or evidence of burrowing owls (e.g., cast pellets, preened feathers, or whitewash clustered at a burrow) during the focused burrowing owl surveys; therefore, the species was confirmed absent.

4.5.2 Special-Status Wildlife Species Not Observed but with a Potential to Occur at the Project Site

Crotch bumble bee (*Bombus crotchii*; SSC) has low to moderate potential to occur within the Project site within the non-native grassland and Riversidean sage scrub plant communities. This species is not covered under the MSHCP, and focused surveys were not conducted. Until November 13th, 2020 the Crotch bumblebee was a State Candidate for listing under CESA[14]. However, in a Superior Court of California ruling on November 13th, 2020 (*Almond Alliance of California vs. California Fish and Game Commission*), the court approved the petition by the plaintiff that the State of California lacks the authority to list insects under CESA. An appeal of the findings was requested by the California Fish and Game Commission; however, the Supreme Court has not yet announced whether the appeal will be heard. Therefore, for the purposes of this report at the time in which it was written, the Crotch bumblebee is considered an SSC, and not a candidate for listing under CESA.

Three listed fairy shrimp species have low potential to occur within the Project site including Riverside fairy shrimp (*Streptocephalus woottoni*; FE), San Diego fairy shrimp (*Branchinecta sandiegonensis*; FE), and vernal pool fairy shrimp (*Branchinecta lynchi*; FT). The site was evaluated on multiple occasions during the 2020-2021 rainfall season, including November 17, December 9, and December 10, 2020 in which several seasonal depressions were identified

[14] The California Fish and Game Commission voted to designate Crotch bumblebee as Candidate Endangered species on June 12, 2019. The final determination is pending.

within the Project site; however, based on the low rainfall nature of the 2020-2021 wet season, it is currently unclear whether these depressional features support the hydrology required to support listed fairy shrimp species. As noted above in Section 2.2.4, wet season fairy shrimp surveys were initiated on December 30, 2020, but surveys were but were discontinued and results were inconclusive due to a lack of rainfall throughout the season. Dry season soil collection is currently ongoing, and additional wet season sampling is scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology.

Western spadefoot (*Spea hammondii*; SSC) has low potential to occur within the Project site as several small, ponded features were identified during the habitat assessment in November of 2020. This species is covered under the MSHCP without additional survey or conservation requirements.

Six special-status reptiles have low to moderate potential to occur within the Project site: California glossy snake (*Arizona elegans occidentalis*; SSC), coast horned lizard (*Phrynosoma blainvillii*; SSC), coast patch-nosed snake (*Salvadora hexalepis virgultea*; SSC), coastal whiptail (*Aspidoscelis tigris stejnegeri*; SSC), Southern California legless lizard (*Anniella stebbinsi*; SSC), and red-diamond rattlesnake (*Crotalus ruber*; SSC). None of these species are state or federally listed but all six are designated as CDFW Species of Special Concern. The Project site provides suitable habitat for each of these species; however, they were not observed during biological surveys. Three of the above listed species are covered under the MSHCP without additional survey or conservation requirements: coast horned lizard, coastal whiptail, and red-diamond rattlesnake.

Bell's sage sparrow (*Artemisiospiza belli belli*), a federal Bird of Conservation Concern, has moderate potential to occur within the Project site for nesting and foraging. This species is covered under the MSHCP without additional survey or conservation requirements.

The California gnatcatcher (*Polioptila californica californica*; CAGN; FT/SSC) has a low potential to occur within the Project site for nesting and foraging in the limited areas of Riversidean sage scrub. CAGN is a Covered Species under the MSHCP without additional survey or conservation requirements, as the Project site is not located within the Criteria Area.

There is low potential for the ferruginous hawk (*Buteo regalis*), a federal Bird of Conservation Concern, to forage within the Project site during wintering; however, the Project site is not located within the breeding range of this species. The ferruginous hawk is a Covered Species under the MSHCP without additional survey or conservation requirements.

The loggerhead shrike (*Lanius ludovicianus*; SSC) has moderate to high potential to occur on site for nesting and foraging within the non-native grassland areas, as well as the ecotones between the grassland and shrub/chaparral communities. This species is covered under the MSHCP without additional survey or conservation requirements.

The American badger (*Taxidea taxus*; SSC), has low potential to forage within the Project site. Although mammal burrows were identified on the Project site, none were large enough and did

not have the distinguishing characteristics to be excavated by badgers. The American badger is not covered or adequately conserved under the MSHCP.

The Dulzura pocket mouse (*Chaetodipus californicus femoralis*; SSC) has low to moderate potential to occur within the Project site within the non-native grassland areas, as well as the ecotones between the grassland and shrub/chaparral communities. The Dulzura pocket mouse is not adequately conserved under the MSHCP.

There is low to moderate potential for the Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*; SSC) to occur within the Project site within the non-native grassland and chaparral communities. The Northwestern San Diego pocket mouse is covered under the MSHCP without additional survey or conservation requirements.

The southern grasshopper mouse (*Onychomys torridus ramona*; SSC) has low potential to occur within the Project site as friable, sandy soils are present within limited areas of the Riversidean sage scrub vegetation community. The southern grasshopper mouse is not adequately conserved under the MSHCP.

Stephen's Kangaroo Rat (*Dipodomys stephensi*; SKR; FE) has low potential to occur within the Project site. The SKR is found almost exclusively in open grasslands or sparse shrublands with cover of less than 50 percent during the summer. The non-native grasslands that occur throughout the Project site are generally too dense and persistent for SKR, which avoid dense grasses and are more likely to inhabit areas where annual forbs disarticulate in the summer and leave open areas; however, the Project site contains marginally suitable habitat for the SKR. Therefore, there is a low potential for this species to be present. The SKR is covered under the MSHCP without additional survey or conservation requirements.

The San Diego black-tailed jackrabbit (*Lepus californicus bennettii*; SSC) has low to moderate potential to occur within the Project site. This species is covered under the MSHCP without additional survey or conservation requirements.

There is low potential for the pallid bat (*Antrozous pallidus*; SSC), western mastiff bat (*Eumops perotis californicus*; SSC), and western yellow bat (*Lasiurus xanthinus*; SSC) to forage within the Project site. In addition, roosting habitat for the pallid bat occurs within the Project site but is limited to the riparian habitat in the avoided southern portion of the Project site. These species are not adequately conserved under the MSHCP.

It is also important to note that the willow riparian forest associated with Cooper's Creek in the avoided southern portion of the Project site provides habitat, ranging from foraging and dispersal habitat through breeding habitat, for six additional special-status species, including two-striped garter snake (*Thamnophis hammondii*; SSC), western pond turtle (*Emys marmorata*; SSC), Southwestern willow flycatcher (*Empidonax traillii extimus*; FE/SE), white-tailed kite (*Elanus leucurus*; CFP), yellow warbler (*Setophaga petechia*; SSC), and yellow breasted chat (*Icteria virens*; SSC). Although these species have potential to occur within the Project site, potential habitat is limited to the willow riparian forest in the southern portion of the Project site, all of

which will be avoided by the proposed Project with a buffer ranging from approximately 50 to 320 feet.

4.5.4 Raptor Use

The Project site provides suitable foraging and breeding habitat for a number of raptor species, including special-status raptors.

Southern California holds a diversity of birds of prey (raptors), and many of these species are in decline. For most of the declining species, foraging requirements include extensive open, undisturbed, or lightly disturbed areas, especially grasslands. This type of habitat has declined severely in the region, affecting many species, but especially raptors. A few species, such as red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparverius*), are somewhat adaptable to low-level human disturbance and can be readily observed adjacent to neighborhoods and other types of development. These species still require appropriate foraging habitat and low levels of disturbance in vicinity of nesting sites.

Many of the raptors that would be expected to forage and nest within western Riverside are Covered Species under the MSHCP with the MSHCP providing the necessary conservation of both foraging and nesting habitats. Some common raptor species (e.g., American kestrel and red-tailed hawk) are not covered by the MSHCP but are expected to be conserved with implementation of the Plan due to the parallel habitat needs with those raptors covered under the Plan.

It is important to understand that the MSHCP does not provide MBTA and Fish and Game Code take for raptors covered under the Plan.

Appendix B (faunal compendium) provides a list of the wildlife detected over the course of the field studies, of which red-tailed hawk was the only raptor. The Project site provides potential nesting habitat (e.g., mature trees, shrubs) for red-tailed hawk, as well as for several special-status raptor species as mentioned in Section 4.5.2, primarily within the avoided area. The Project site also provides foraging habitat for red-tailed hawk, as well as several special-status raptor species as mentioned in Section 4.5.2, in the form of insects, spiders, lizards, snakes, small mammals, and other birds.

4.6 Nesting Birds

The Project site contains trees, shrubs, and ground cover that provide suitable habitat for nesting native birds. Mortality of native birds (including eggs) is prohibited under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.[15]

[15] 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.

4.7 Wildlife Linkages/ Corridors and Nursery Sites

Habitat linkages are areas which provide a communication between two or more other habitat areas which are often larger or superior in quality to the linkage. Such linkage sites can be quite small or constricted, but may can be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement taking potentially many generations.

Corridors are similar to linkages but provide specific opportunities for individual animals to disperse or migrate between areas, generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common requirements for corridors. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor will still function as desired.

No MSHCP Cores or Linkages are located within the Project site. The Project footprint does not represent or contribute to wildlife linkages or corridors, as it does not contain the structural topography or vegetative cover that facilitate regional wildlife movement. In addition, the Project footprint is surrounded on three sides by an active construction project, Potrero Boulevard, and the SR-60 corridor; therefore, the proposed Project footprint does not facilitate wildlife movement to/from off-site blocks of habitat suitable to support native wildlife species.

Wildlife nurseries are sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies. Nurseries can be important to both special-status species as well as commonly occurring species.

The Project site supports breeding and nesting habitat for locally common species; however, does not have the potential to support a regionally important or colonial wildlife nursery site, such as a heronry or colonial bat roost.

4.8 Critical Habitat

No proposed or designated Critical Habitat is mapped within or adjacent to the Project site.

4.9 Jurisdictional Waters

The Project site contains three features described herein as Drainage A, Drainage A-1, and Cooper's Creek. Drainage A is an ephemeral drainage that enters the northeast portion of the Project site and flows westerly across the site. Drainage A-1 is an ephemeral tributary to Drainage A that begins in the eastern portion of the site and converges with Drainage A in the central portion of the site. Drainage A is tributary to Cooper's Creek, which is a perennial creek dominated with mature riparian and wetland vegetation. Cooper's Creek flows in a general east to northwest direction through the avoided southern portion of the Project site, and is one of the major southern tributaries to San Timoteo Creek.

4.9.1 United States Army Corps of Engineers Jurisdiction

Potential Corps jurisdiction at the site totals approximately 1.22 acres, all of which consist of federal wetlands associated with Cooper's Creek. A total of 1,692 linear feet of potentially Corps jurisdictional streambed is present. The boundaries of Corps jurisdiction are depicted on Exhibit 8A.

Potential Corps jurisdiction is limited to Cooper's Creek, a perennial stream. Drainage A and Drainage A-1 are ephemeral streams that flow only in direct response to precipitation (e.g., rain). Pursuant to the *Navigable Waters Protection Rule*, ephemeral features, including ephemeral streams, swales, gullies, rills, and pools are not considered waters of the U.S. regardless of the presence or absence of an OHWM. Tributaries must satisfy the flow conditions of the definition described in 33 U.S.C. 1251 et seq. and its implementing regulations (33 CFR Part 328.3). As a result, these features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA.

4.9.2 Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction associated with the Project totals approximately 2.52 acres, of which 1.22 acres consist of State wetlands and 1.30 acres consist of non-wetland State waters. This includes 1,692 linear feet of wetland stream associated with Cooper's Creek, and 2,187 linear feet of ephemeral, non-wetland stream. The boundaries of Regional Board jurisdiction are depicted on Exhibit 8B.

Regional Board jurisdiction includes Cooper's Creek, which as stated above, is considered a potential Water of the U.S. (WoUS) and is potentially subject to Corps jurisdiction under Section 404 of the CWA. Since this feature is considered potential WoUS, it is subject to Regional Board jurisdiction under Section 401 of the CWA.

Drainages A and A-1 are characterized as ephemeral drainage features that convey surface water only in direct response to precipitation (e.g., rain) and do not meet the criteria for regulation by the Corps under Section 404 of the CWA. Since ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA, these features are also not subject to Regional Board jurisdiction pursuant to Section 401 of the CWA. However, since these features convey surface flow with the potential to support beneficial uses, they are considered to be Waters of the State (WoS) that would be regulated by the Regional Board pursuant to Section 13260 of the California Water Code (CWC)/the Porter-Cologne Act.

Table 4-4 below summarizes Regional Board jurisdictional waters associated with the Project site.

Table 4-4. Summary of Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	1.22	1.22	1,692

Drainage A	1.22	0	1.22	1,489
Drainage A-1	0.08	0	0.08	699
Total	**1.30**	**1.22**	**2.52**	**3,880**

4.9.3 CDFW Jurisdiction

CDFW jurisdiction associated with the Project totals approximately 7.68 acres and includes all areas within potential Corps and/or Regional Board jurisdiction. Of this total, 6.33 acres consist of riparian stream and 1.35 acres consist of non-riparian stream. A total of 3,880 linear feet of stream is present. This includes 1,692 linear feet of riparian stream and 2,188 linear feet of ephemeral, non-riparian stream. The boundaries of CDFW jurisdiction are depicted on Exhibit 8C.

As stated above, the Project site contains one perennial feature (Cooper's Creek) and two ephemeral drainage features (Drainage A and A-1). Each of these features exhibited flow sign with the presence of an established bed and bank. Cooper's Creek is a perennial stream system, which supports a mature riparian canopy. In addition, Drainage A supports a sporadic riparian vegetation regime, and supports more xeric riparian species, including individual blue elderberrys and scrub oaks. As such, these features are subject to CDFW jurisdiction under Section 1602 of the Fish and Game Code.

Table 4-5 below summarizes CDFW jurisdictional waters associated with the Project site.

Table 4-5. Summary of CDFW Jurisdiction

Drainage Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	6.21	6.21	1,692
Drainage A	1.23	0.12	1.35	1,489
Drainage A-1	0.12	0	0.12	699
Total	**1.35**	**6.33**	**7.68**	**3,880**

4.10 MSHCP Riparian/Riverine Areas and Vernal Pools

GLA surveyed the Project site for riparian/riverine areas and vernal pool/seasonal pool habitat, including features with the potential to support listed fairy shrimp. To assess for vernal/seasonal pools (including fairy shrimp habitat), GLA biologists evaluated the topography of the site, including whether the site contained depressional features/topography with the potential to become inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding.

Vegetation communities associated with riparian systems and vernal pools are depleted natural vegetation communities because, similar to coastal sage scrub, they have declined throughout Southern California during past decades. In addition, they support a greater variety of special-

status wildlife species than surrounding upland habitat types. Many of the species associated with riparian/riverine areas are Covered Species under the MSHCP (under Section 6.1.2 of the Plan), with additional survey requirements for these species. Thus, the MSHCP classification of riparian/riverine includes both riparian (considered depleted natural vegetation communities due to their riparian association) as well as ephemeral drainages that are natural in origin or drain to the MSHCP Conservation Area, but may lack associated riparian vegetation.

4.10.1 MSHCP Riparian/Riverine Areas

CDFW jurisdiction (inclusive of all Regional Board jurisdiction) within the Project site as described above in Section 4.9.3 would be designated as a Riparian/Riverine resource under the MSHCP; portions of which constitute riparian habitat. These areas will be addressed and mitigated under the aquatic permitting process, as well as requiring a Determination of Biologically Equivalent or Superior Preservation analysis and associated compensatory mitigation under the MSHCP. A full description of CDFW/MSHCP Riparian/Riverine jurisdictional drainage features associated with the Project site can be found in Appendix D [Jurisdictional Delineation Report]. The boundaries of CDFW jurisdiction/MSHCP Riparian/Riverine resources are depicted on Exhibit 8C.

Several individual elderberry and scrub oaks were designated as riparian habitat within Drainage A, as noted in Table 4-5 and identified on Exhibit 8C. These areas are also considered as MSHCP riparian resources; however, as these individual trees contributed to the assemblage of the surrounding vegetation communities, and were not present in such density as to represent a separate community, they were not mapped as distinct riparian vegetation communities [Exhibit 5] for the purpose of this report. The subject trees are isolated within the surrounding Riversidean sage scrub and non-native grassland communities, and do not have the potential to support Riparian Riverine (MSHCP Section 6.1.2) associated species that are typically associated with riparian habitats such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo.

4.10.2 MSHCP Vernal Pools

Habitat assessments for vernal pools and seasonal pool habitats were conducted on November 17, December 9, and December 10, 2020 in which several seasonal depressions were identified within the Project site that may potentially represent suitable habitat for listed fairy shrimp species, should the appropriate duration of ponding be supported. These depressions consist primarily of bare ground with a small percent cover of non-native grasses presumably created by human disturbance of the site, with two of the depressions consisting of road ruts. None of these features constitute MSHCP or Corps vernal pools due to a lack of hydric soils and due to the fact that no plant species associated with vernal pools were observed within these features and they did not support a predominance of hydrophytic species; however, based on the low rainfall nature of the 2020-2021 wet season, it is currently unclear whether these depressional features support the hydrology required to support listed fairy shrimp species. As noted above in Section 2.2.4, wet season fairy shrimp surveys were initiated on December 30, 2020, but surveys were but were discontinued and results were inconclusive due to a lack of rainfall throughout the season. Dry season soil collection is currently ongoing, and additional wet season sampling is

scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology.

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 offsite 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 invasive species, 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)

A. 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.

B. Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 2018 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

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

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

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

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

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

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

5.2 Impacts to Special-Status Species

Appendix G(a) of the CEQA guidelines asks if a project is likely to "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 impact one special-status plant species: Parry's spineflower. As described in Section 4.4.1, Parry's spineflower was observed in a single location at the southern boundary of the Project footprint. Approximately 1,500 individuals were identified within sandy openings of the Riversidean sage scrub plant community. Parry's spineflower is a CNPS List 1B.1 species, and direct impacts associated with the proposed Project will permanently impact this population; however, Parry's spineflower is a Covered Species under the MSHCP. Therefore, the loss of this population would potentially represent a CEQA-significant impact to this special-status plant species prior to mitigation, but this impact would be reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves this species and associated suitable habitat on a regional level.

5.2.2 Impacts to Special-Status Animals

The proposed Project will result in the loss of habitat that potentially supports the following listed species: CAGN and SKR.

The proposed Project will also result in the loss of habitat that potentially supports the following non-listed special-status species: Crotch bumble bee (SSC), western spadefoot (SSC), California glossy snake (SSC), coast horned lizard (SSC), coast patch-nosed snake (SSC), coastal whiptail (SSC), red-diamond rattlesnake (SSC), Southern California legless lizard (SSC), Bell's sage sparrow, burrowing owl (SSC), ferruginous hawk, loggerhead shrike (SSC), American badger (SSC), Dulzura pocket mouse (SSC), northwestern San Diego pocket mouse (SSC), pallid bat (SSC), San Diego black-tailed jackrabbit (SSC), southern grasshopper mouse (SSC), western mastiff bat (SSC), and western yellow bat (SSC).

Listed Species, MSHCP Covered
CAGN – The Project would remove marginally suitable habitat for CAGN (FT/SSC) within the limited areas of Riversidean sage scrub. This loss of habitat would potentially represent a CEQA-significant impact prior to mitigation, but this impact would be reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves this species and associated suitable habitat on a regional level.

SKR – The project would remove marginally suitable habitat for SKR (FE/ST) within the non-native grassland vegetation community. This loss of potentially occupied habitat by SKR would potentially represent a CEQA-significant impact prior to mitigation, but this impact would be reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves this species and associated suitable habitat on a regional level.

Non-Listed Species, MSHCP Covered
In addition to the listed species discussed above, the proposed Project will result in a loss of habitat that has potential to support the following non-listed, special-status species covered by the MSHCP: western spadefoot (SSC), coast horned lizard (SSC), coastal whiptail (SSC), red-diamond rattlesnake (SSC), Bell's sage sparrow, burrowing owl (SSC), ferruginous hawk , loggerhead shrike (SSC), northwestern San Diego pocket mouse (SSC), and San Diego black-tailed jackrabbit (SSC).

The proposed Project would remove potential nesting and foraging habitat for the loggerhead shrike. Although this species was not observed during biological surveys, the loggerhead shrike has declined appreciably in western Riverside County and the loss of potential habitat would potentially represent a CEQA-significant impact prior to mitigation. However, this impact would be reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves this species and associated suitable habitat on a regional level.

As burrowing owls were not observed within the Project footprint during focused surveys, the proposed Project would not cause impacts to burrowing owl. However, due to the mobile nature of the species, a pre-construction burrowing owl survey is required by Section 6.3.2 of the MSHCP. Refer to Section 6.0 for details.

Proposed impacts to western spadefoot, coast horned lizard, coastal whiptail, red-diamond rattlesnake, Bell's sage sparrow, ferruginous hawk (foraging role only), northwestern San Diego pocket mouse, and San Diego black-tailed jackrabbit would be less than significant under CEQA. This is based on the number of individuals potentially affected, the species role within the Project footprint, the marginal quality and limited amount of potentially suitable habitat removed by the proposed Project, and/or whether the species remains restricted on a gobal level, yet locally abundant within the region. Regardless, these species are designated as Covered Species under the MSHCP, with all potential impacts reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves these species and associated suitable habitat on a regional level.

Non-Listed Species, Non-MSHCP Covered

The proposed Project will also result in a loss of habitat that has potential to support the following non-listed, special-status species that are not covered by the MSHCP: crotch bumble bee (SSC), California glossy snake (SSC), coast patch-nosed snake (SSC), southern California legless lizard (SSC), American badger (SSC), Dulzura pocket mouse (SSC), pallid bat (SSC), southern grasshopper mouse (SSC), western mastiff bat (SSC), and western yellow bat (SSC).

Crotch bumble bee (SSC), California glossy snake (SSC), coast patch-nosed snake (SSC), southern California legless lizard (SSC), Dulzura pocket mouse (SSC), and southern grasshopper mouse (SSC) were not observed within the Project site during biological surveys, yet these species have potential to occur throughout the site in the various vegetation communities. Impacts to habitat that potentially supports these species would be less than significant under CEQA due to each species having a low-level of sensitivity (i.e., still common to western Riverside County), as well as the marginal quality and limited amount of potentially suitable habitat removed by the proposed Project. Regardless, although these species are not covered under the MSHCP, the conservation lands that comprise the MSHCP reserve assembly include habitat suitable to support these species on a regional level. Therefore, any potential impact is addressed through consistency with the MSHCP, as suitable habitat for these species has been conserved on a regional level.

The Project site also contains habitat with the potential to support foraging by additional special-status species, including American badger (SSC), pallid bat (SSC), western mastiff bat (SSC), and western yellow bat (SSC). The Project would permanently impact 37.02 acres of habitat with the potential to support foraging for these species. The loss of this foraging habitat would not be a significant impact under CEQA due to the marginal quality and limited amount of potential foraging habitat removed by the proposed Project. Regardless, although these species are not covered under the MSHCP, the conservation lands that comprise the MSHCP reserve assembly include habitat suitable to support foraging for these species on a regional level. Therefore, regardless of impacts, suitable foraging habitat for these species has been conserved on a regional level.

Impacts to Raptors

Raptors (Birds of Prey) include owls, hawks, eagles, and falcons. Common species of raptors (e.g. red-tailed hawk, American kestrel, great horned owl) have potential to forage within the Project footprint, and during the field studies a red-tailed hawk was observed foraging within the site. Raptors were not observed nesting within the Project site over the course of the surveys, and raptor nesting habitat is limited to the riparian habitat associated with Cooper's Creek which will be avoided by the proposed Project.

The proposed removal of 37.02 acres of suitable raptor foraging habitat within the Project footprint would not be a significant impact under CEQA due to the marginal quality and limited amount of potential foraging habitat removed by the proposed Project. Regardless, although the common raptor species (e.g., American kestrel and Red-tailed Hawk) are not covered under the MSHCP, the biological requirements of these species are expected to be conserved due to the parallel habitat needs with those raptors covered under the Plan.

Impacts to Fairy Shrimp
As noted above in Section 4.5.2, wet season fairy shrimp surveys were inconclusive and dry season surveys are currently ongoing, with additional wet season sampling scheduled to occur during the 2021-2022 wet season. Should listed fairy shrimp be detected within the Project site including Riverside fairy shrimp (FE), San Diego fairy shrimp (FE), and/or vernal pool fairy shrimp (FT), any impact to these species as a result of the proposed Project would represent a CEQA-significant impact prior to mitigation and would require a DBESP under the MSHCP. As such, a project-specific mitigation measure is provided in Section 6 for any potential impact once focused surveys are concluded.

5.3 Impacts to Sensitive Vegetation Communities

Appendix G(a) of the CEQA guidelines asks if a project is likely to "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 proposed Project would not impact any sensitive or special-status vegetation communities, including riparian habitat. Table 5-1 provides a summary of vegetation community/land cover impacts. The proposed Project would permanently impact approximately 8.6 acres of native habitats and 28.4 acres of non-native habitats [Exhibit 5]. A majority of the impacted habitats are non-native (non-native grassland, disturbed/developed areas).

Table 5-1. Summary of Vegetation Community/Land Cover Impacts

VEGETATION COMMUNITY/LAND COVER	Total Impacts (acres)
Non-Native Grassland	18.56
Riversidean Sage Scrub	5.39
Scrub Oak Chaparral	3.20
Disturbed/Developed	9.87
Total	**37.02**

The proposed Project would also permanently impact 0.12 acre of MSHCP riparian resources and 1.35 acres of unvegetated riverine resources. Table 5-2 below provides a summary of MSHCP riparian/riverine impacts and avoidance [Exhibit 8C].

Table 5-2. Proposed Impacts and Avoidance of MSHCP Riparian/Riverine Resources

Drainage Name	Impacted MSHCP Riparian (acres)	Impacted MSHCP Riverine (acres)	Avoided MSHCP Riparian (acres)	Avoided MSHCP Riverine (acres)
Cooper's Creek	0	0	6.21	0
Drainage A	0.12	1.23	0	0
Drainage A-1	0	0.12	0	0
Total	**0.12**	**1.35**	**6.21**	**0**

The MSHCP riparian vegetation that would be impacted by the proposed Project consists of individual blue elderberry and scrub oak individuals totaling 0.12 acre, which, in the context of the Project site constitute riparian resources, yet do not represent an appreciable vegetation community. As such, they do not have potential to support riparian associated species such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. These trees are isolated, and individually represent MSHCP riparian resources, yet are a component of the assemblage of the surrounding non-riparian vegetation communities, including Riversidean sage scrub and non-native grasslands. As a regulated resource under the MSHCP, impacts to these riparian-associated trees would be a potentially significant impact under CEQA and would also trigger a DBESP.

The MSHCP requires that impacts to riparian/riverine resources be mitigated, such that the lost functions and values are replaced, in order for the Project to be "biologically equivalent or superior" to the existing site conditions prior to impact.

Proposed mitigation is discussed in Section 6.0 of this report, demonstrating that the proposed Project would meet the requirements of the MSHCP and hence reduce potentially significant impacts under CEQA to a level of less than significant.

5.4 Wetlands

Appendix G(c) of the State CEQA guidelines asks if a project is likely to "have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means."

Approximately 1.22 acres and 1692 linear feet of wetland WoUS potentially regulated by the Corps and Regional Board are present within the southern (avoided) portion of the Project site; however, these areas are not proposed to be impacted by the proposed Project. Therefore, no impact to federally or state regulated wetlands will occur as a result of the proposed Project.

5.5 Wildlife Movement and Native Wildlife Nursery Sites

Appendix G(d) of the State CEQA guidelines asks if a project is likely to "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."

The Project footprint lacks migratory wildlife corridors and does not occur within MSHCP Cores or Linkages. The proposed Project would not interfere with or otherwise impact (1) the movement of native resident or migratory fish or wildlife species or (2) established native resident or migratory wildlife corridors. In addition, the Project site is not expected to support wildlife nursery sites for mammals, including bats.

5.5.1 Migratory Birds

The 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.

Although impacts to native birds are prohibited by the MBTA and similar provisions of California Fish and Game Code, impacts to native birds by the proposed Project would not be a significant impact under CEQA. The native birds with potential to nest on the Project site would be those that are extremely common to the region and highly adapted to human landscapes (e.g., house finch, killdeer). The number of individuals potentially affected by the Project would not significantly affect regional, let alone local populations of such species. A measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

5.6 Local Policies or Ordinances

Appendix G(e) of the State CEQA guidelines asks if a project is likely to "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance." The Project will not conflict with any local policies or ordinances protecting biological resources.

5.7 Habitat Conservation Plans

Appendix G(f) of the State CEQA guidelines asks if a project is likely to "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 within the Western Riverside County MSHCP. Section 7.0 of this report analyzes compliance of the Project with the Reserve Assembly and species/habitat requirements of the MSHCP. Impacts to species/habitats with MSHCP requirements are summarized here. Through compliance with the applicable requirements, the Project will not conflict with the provisions of the MSHCP.

5.8 Impacts to Jurisdictional Waters

The proposed Project would permanently impact 1.30 acres of Regional Board jurisdiction, none of which consists of jurisdictional wetlands [Exhibit 8B]. A total of 2,187 linear feet of streambed would be permanently impacted. In addition, the proposed Project would permanently impact 1.46 acres (2,187 linear feet) of CDFW jurisdiction, of which 0.12 acre consists of vegetated riparian habitat [Exhibit 8C]. A summary of proposed impacts to potential jurisdictional resources is summarized in Table 5-3 below.

Table 5-3. Impacts to Potential Jurisdictional Waters

Drainage Name	Regional Board Non-Wetland Waters (acres)	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Length (linear feet)
Cooper's Creek	0	0	0	0
Drainage A	1.22	1.23	0.12	1,489
Drainage A-1	0.08	0.12	0	699
Total	**1.30**	**1.35**	**0.12**	**2188**

The proposed impacts to Regional Board and CDFW jurisdictional waters would be potentially significant under CEQA prior to mitigation as the total potential jurisdiction is over one acre. In addition, these impacts would require regulatory permitting pursuant to Section 13260 of the Porter-Cologne Water Quality Control Act and Section 1602 of the Fish and Game Code. Section 6.0 of this report provides project-specific mitigation measures. With the proposed mitigation, Project impacts to these drainages would be less than significant under CEQA.

In addition, and as discussed above in Section 5.3, the proposed Project will permanently impact MSHCP riparian/riverine areas, including 0.12 acre of riparian and 1.35 acres of unvegetated riverine resources. Impacts to riparian/riverine areas must be mitigated such that the resulting project, with mitigation, is biologically equivalent or superior to the existing site conditions. As such, a DBESP is required (refer to Section 7.2).

5.9 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. Although the Project site is not located within or adjacent to the MSHCP Conservation Area, the drainages within the Project footprint drain to Cooper's Creek and San Timoteo Creek, portions of which are located within the Conservation Area (Cooper's Creek - Public Quasi-Public Land, and San Timoteo Creek - Public Quasi-Public Land and Regional Conservation Authority Conserved Lands). In addition, the proposed Project impact footprint is located approximately 50 to 320 feet north of habitat which represents long-term conservation value for LBV. The Project is not expected to result in significant indirect impacts to special-status biological resources within the downstream Conservation Area or nearby habitat representing long-term conservation value for LBV, with the implementation of measures pursuant to the MSHCP Urban/Wildlands Interface Guidelines (*Volume I, Section 6.1.4* of the MSHCP). These guidelines are intended to address indirect effects associated with locating projects (particularly development) in proximity to the MSHCP Conservation Area. To minimize potential edge effects, the guidelines are to be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area. The Project will implement measures consistent with the MSHCP guidelines to address the following:

- Drainage;
- Toxics;
- Lighting;

- Noise; and
- Invasives.

5.9.1 Drainage

Proposed Projects in proximity to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV). This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

The Project's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to address runoff and water quality during construction.

5.9.2 Toxics

Land uses proposed in proximity to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV). Measures such as those employed to address drainage issues shall be implemented. The proposed Project will implement a SWPPP that will address runoff during construction.

5.9.3 Lighting

Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) from direct night lighting. If night lighting is required during construction, shielding shall be incorporated to ensure ambient lighting in the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) is not increased.

5.9.4 Noise

Proposed noise generating land uses affecting the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) should not be subject to noise that would exceed residential noise standards.

5.9.5 Invasives

Projects adjacent to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) shall avoid the use of invasive plant species in landscaping, including invasive, non-native plant species listed in Volume I, *Table 6-2* of the MSHCP.

5.10 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 discussed throughout this report, the 37.02 acres proposed for impacts by the Project consist of relatively disturbed lands with remnant patches of native scrub habitat, surrounded primarily by active construction and vehicular roadways. The proposed Project would permanently impact potential Regional Board and CDFW jurisdiction, as well as MSHCP riparian/riverine resources; however, all impacts would be fully mitigated (refer to Section 6). The Project site is not located within the MSHCP Criteria Area and no special-status species, including plant or wildlife species, that are not covered under the MSHCP that could trigger a CEQA significant impact were observed or detected within the Project site. In addition, the conservation lands that comprise the MSHCP reserve assembly include habitat suitable to support non-MSHCP covered species on a regional level, as they have similar habitat requirements to many MSHCP covered species. Therefore, any potential cumulative impact is addressed through consistency with the MSHCP, pursuant to conservation requirements on a regional level.

As such, through compliance and participation with the MSHCP, the loss of this area will not contribute to a cumulatively significant impact to biological resources.

6.0 MITIGATION/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 footprint contains suitable habitat for burrowing owls; however, burrowing owls were not detected during focused surveys. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys are conducted 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:

- **Pre-Construction Survey.** A 30-day pre-construction survey for burrowing owls is required prior to future ground-disturbing activities (e.g., vegetation clearing, clearing and grubbing, site watering, equipment staging, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the initiation of ground-disturbing activities, the project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies and will need to coordinate in the future with the RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure that burrowing owl have not colonized the site since it was last disturbed. If burrowing owls are found, the same coordination described above will be necessary.

6.2 Least Bell's Vireo

Willow riparian habitat associated with Cooper's Creek occurs at various distances ranging from approximately 50 to 320 feet south of the Project footprint and represents potential habitat for the state and federally listed LBV. Although 100 percent of the habitat that is occupied or potentially occupied by LBV will be avoided by the proposed Project, and habitat that represents long-term conservation value for LBV will not be impacted by the proposed Project, GLA recommends the following measures to ensure the nesting/breeding activities of this species are not disrupted and no impact to habitat that represents long-term conservation value for LBV occurs as a result of the proposed Project:

- The project impact footprint, including any construction buffer, shall be staked and fenced (e.g., with orange snow fencing, silt fencing or a material that is clearly visible) and the boundary shall be confirmed by a qualified biological monitor prior to ground disturbance. The construction site manager shall ensure that the fencing is maintained for the duration of construction and that any required repairs are completed in a timely manner.
- Equipment operators and construction crews will be informed of the importance of the construction limits by the biological monitor prior to any ground disturbance.

- Construction activities within 300 feet of the nearest extent of adjacent riparian habitat associated with Cooper's Creek will be avoided from April 1st through August 31st.
- For any vegetation clearing or work within 100 feet of Cooper's Creek, a biologist will monitor to ensure encroachment into Cooper's Creek does not occur.
- Active construction areas will be watered regularly (at least once every two hours) to control dust and thus minimize impacts on vegetation within Cooper's Creek.
- Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the limits of disturbance and designated staging areas and routes of travel approved by the biological monitor.
- Exotic plant species removed during construction will be properly handled to prevent sprouting or regrowth. Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds before mobilizing to the site and before leaving the site during the course of construction. The cleaning of equipment will occur at least 300 feet from jurisdictional aquatic features, including Cooper's Creek. If the location is closer, it must be approved by the biological monitor.
- Vegetation will be covered while being transported, and vegetation materials removed from the site will be disposed of in accordance with applicable laws and regulations.
- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances will occur only in designated areas within the limits of disturbance and at least 200 feet from jurisdictional aquatic features, including Cooper's Creek. These designated areas will be clearly marked and located in such a manner as to contain runoff and will be approved by the biological monitor.
- To avoid attracting predators, the project site will be kept clear of trash and debris. All food related trash items will be enclosed in sealed containers and regularly removed from the site.

6.3 Nesting Birds

The Project site contains vegetation with the potential to support native nesting birds. As discussed above, the California Fish and Game Code prohibits mortality of native birds, including eggs. The following measure is recommended to avoid mortality to nesting birds. Potential impacts to native birds was not considered a biologically significant impact under CEQA, however to comply with state law, the following is recommended:

- 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.

6.4 Fairy Shrimp

As noted above, wet season fairy shrimp surveys were discontinued and were inconclusive due to the lack of rainfall during the 2020-2021 rainy season. Dry season soil collection is currently ongoing, and additional wet season sampling is scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology. Sampling was and will continue to be conducted per the USFWS survey protocol entitled *Survey Guidelines for the Listed Large Branchiopods* (dated November 13, 2017). A written report documenting the findings of focused fairy shrimp surveys will be provided upon conclusion.

If the focused surveys render negative results and listed fairy shrimp are not found to be present within the Project site, no additional action is required. However, if the Project site is found to support listed fairy shrimp the following mitigation measure be required:

- Vernal pool habitat (depressional areas occupied by listed fairy shrimp species) shall be mitigated at a minimum 1:1 ratio, and shall include one, or a combination of, the following, all of which shall include the introduction of fairy shrimp inoculum except where listed fairy shrimp already occupy mitigation lands and shall occur within the MSHCP Plan Area:
    - On-site creation, enhancement, or restoration and placement into a conservation easement (CE) or similar protective mechanism;
    -
    - Off-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
    - Off-site acquisition and preservation and placement into a CE or similar protective mechanism;
    - Purchase of credits at an agency-approved mitigation bank; and/or
    - Payment into an agency-approved in-lieu fee program.
- A DBESP will be prepared and approved by the Wildlife Agencies (USFWS, CDFW).

6.5 Jurisdictional Waters

As noted above in Section 5, the Project will impact 1.30 acres of Regional Board jurisdiction and 1.46 acres of CDFW jurisdiction, including 0.12 acre of vegetated riparian streambed. The following measure identifies mitigation proposed for impacts to jurisdictional waters:

- Impacts to unvegetated waters of the U.S. and state shall be mitigated at a minimum 1:1 ratio and impacts to wetland/vegetated streambed shall be mitigated at a minimum ratio of 2:1, subject to approval of the RWQCB and CDFW, and include one, or a combination of, the following:
    - On-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
    - Off-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
    - Off-site acquisition and preservation and placement into a CE or similar protective mechanism;

- Purchase of credits at an agency-approved mitigation bank such as Riverpark; and/or
- Payment into an agency-approved in-lieu fee agreement.

6.6 MSHCP Riparian/Riverine Areas

As noted above in Section 5, the Project will impact 0.12 acre of MSHCP riparian resources and 1.35 acres of unvegetated riverine resources. The following measures will address these impacts:

- **DBESP.** A DBESP analysis will be submitted to the Wildlife Agencies to approve impacts to MSHCP riparian/riverine areas.
- Impacts to unvegetated MSHCP riverine areas shall be mitigated at a minimum 1:1 ratio and impacts to MSHCP riparian shall be mitigated at a minimum ratio of 2:1, subject to approval of the wildlife agencies, and include one, or a combination of, the following:
  - On-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
  - Off-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
  - Off-site acquisition and preservation and placement into a CE or similar protective mechanism;
  - Purchase of credits at an agency-approved mitigation bank such as Riverpark; and/or
  - Payment into an agency-approved in-lieu fee program.

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 proposed Project is located within The Pass Area Plan of the MSHCP. However, the Project site is not located within the MSHCP Criteria Area and would therefore not be subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process or the Joint Project Review (JPR) process. As such, the Project would not conflict with Reserve Assembly goals.

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

The MSHCP defines Riparian/Riverine Areas as "*lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source, or areas with fresh water flow during all or a portion of the year*."

As discussed in Sections 4.10 and 5.3 above, the proposed Project will permanently impact MSHCP riparian/riverine areas, including 0.12 acre of riparian and 1.35 acres of unvegetated riverine resources. Impacts to riparian/riverine areas must be mitigated such that the resulting project, with mitigation, is biologically equivalent or superior to the existing site conditions. As such, a DBESP is required, after which the proposed Project will be consistent with MSHCP *Volume I, Section 6.1.2* of the MSHCP.

It should be noted that the Project will not impact habitat with the potential to support riparian birds, including the least Bell's vireo, southwestern willow flycatcher, or the western yellow-billed cuckoo; however, due to the proximity of the Project footprint to Cooper's Creek, an LBV-specific measure is outlined in Section 6.2.

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 indicators of hydrology and/or vegetation during the drier portion of the growing season*."

The proposed Project does not contain vernal pools, and therefore will not impact, any MSHCP vernal pools. If fairy shrimp are detected within the Project site during future focused surveys, a fairy shrimp-specific measure is outlined in Section 6.4. As such, the proposed Project is consistent with MSHCP *Volume I, Section 6.1.2* as it pertains to vernal pools.

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 proposed Project site is located within the MSHCP NEPSSA designated survey area 8; therefore, the following target species were evaluated: many-stemmed dudleya and Yucaipa onion. As noted in Section 4.4.1, both species were confirmed absent during focused plant surveys. As such, the proposed Project would be consistent with *Volume I, Section 6.1.3* of the MSHCP.

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.

The proposed Project is not located in proximity to MSHCP Conservation Areas; therefore, the Urban/Wildland Interface Guidelines are not applicable to the Project. Furthermore, since the Project site is surrounded by developed and other non-native areas with varying rural land uses, the Project will not indirectly impact sensitive biological resources.

7.5 Additional Survey Needs and Procedures

Volume I, Section 6.3.2 of the MSHCP states that in addition to the Narrow Endemic Plant Species addressed in *Volume I, 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 for additional plant species if a project site occurs within a designated Criteria Area Plant Species Survey Area. In addition, focused surveys are also required (with suitable habitat) for seven animal species as identified by the corresponding Survey Area.

The Project site is located within the MSHCP Burrowing Owl Survey Area. Focused burrowing owl surveys were performed within the Study Area and burrowing owls were not detected. However, as discussed above in Section 6.1, pre-construction surveys are required no more than 30 days prior to construction to confirm the absence of owls.

A 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities (e.g. vegetation clearing, clearing and grubbing, tree removal, site watering) to ensure that no burrowing owls have colonized the Project site in the days or weeks preceding the initial ground-disturbing activities. If burrowing owls are found to have colonized the Project site prior to the initiation of ground-disturbing activities, the Wildlife Agencies and the Regional Conservation Authority (RCA) will be immediately informed, and additional coordination with RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, will occur prior to initiating ground disturbance. If ground-disturbing activities occur but the Project site is left undisturbed for more than 30 days, an additional pre-construction survey will again be necessary to ensure that burrowing owls have not colonized the site since it was last disturbed. If burrow owls are found, the same coordination with the RCA and Wildlife Agencies described above will be necessary.

The Project site is not located within the CAPSSA or within the MSHCP Amphibian Survey Area; however, the Project site is located within the MSHCP Mammal Survey Area. The site was found not to contain habitat for the Los Angeles pocket mouse [Appendix C]; therefore, with the performance of pre-construction burrowing owl surveys, the proposed Project would be consistent with *Volume I, Section 6.3.2* of the MSHCP.

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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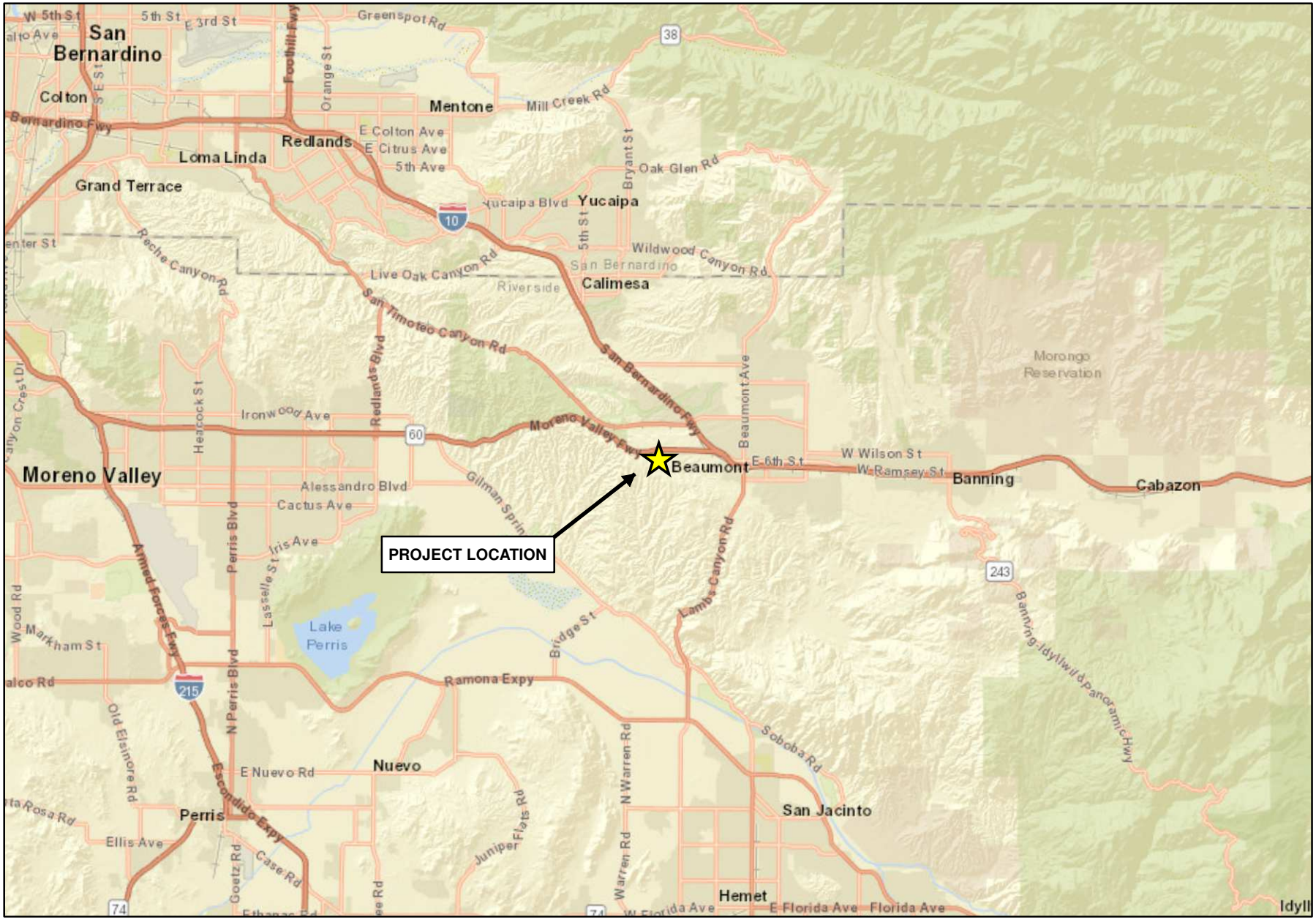
9.0 CERTIFICATION

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: __August 12, 2021__

p:1275-6b.bio.rpt.doc

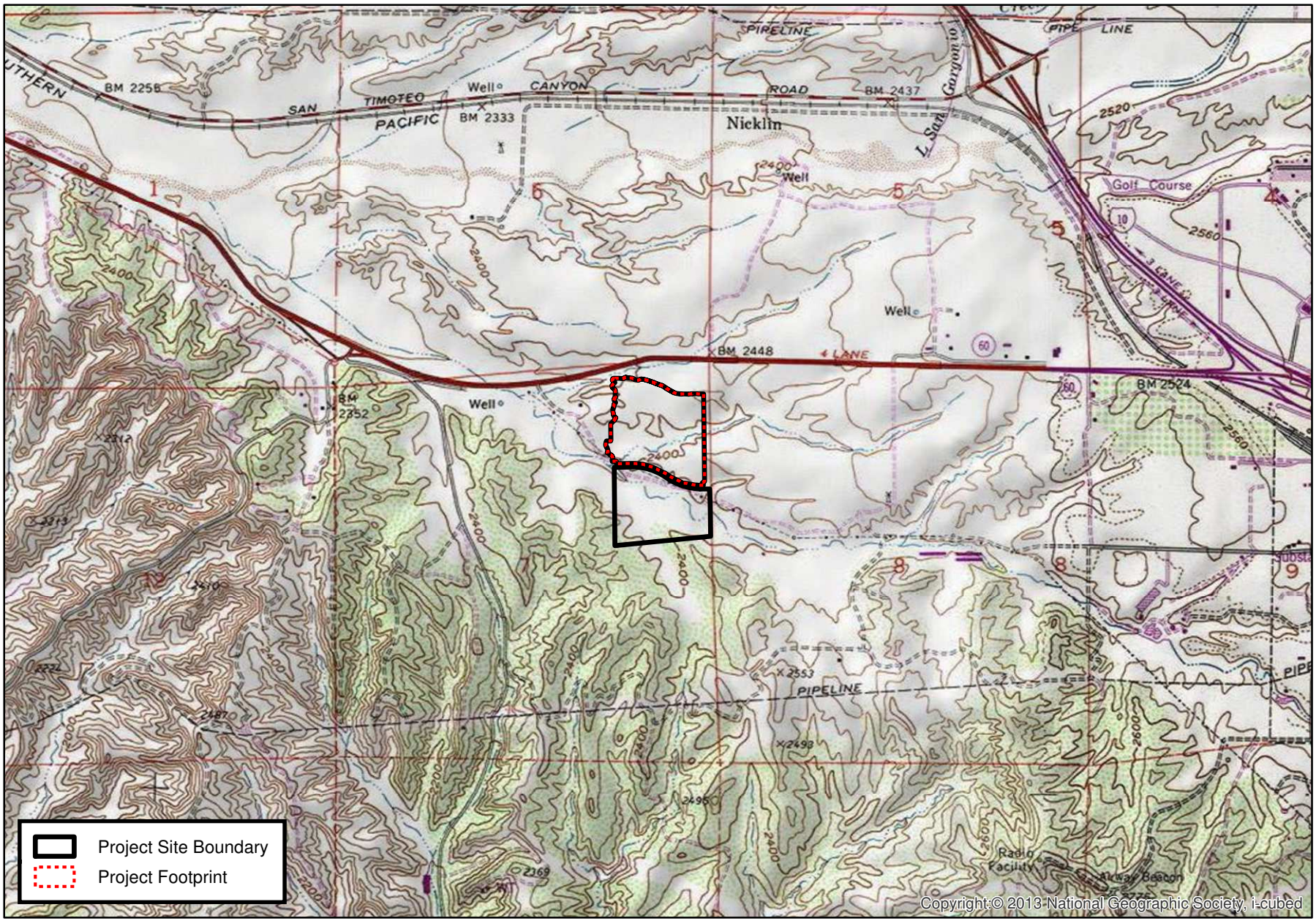


POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

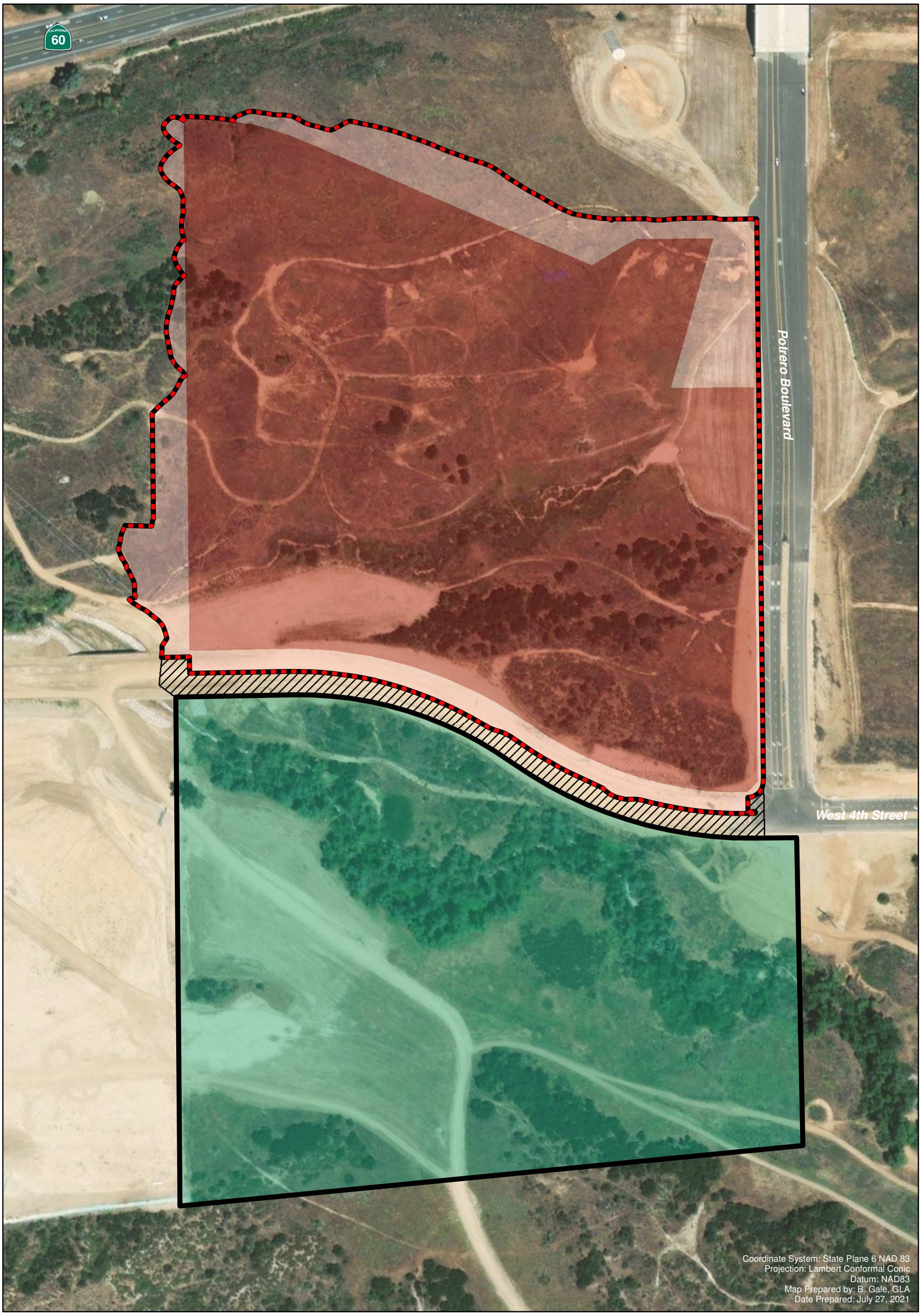


POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project Site Boundary
Project Footprint
Onsite Impact
Offsite Impact
Avoided
Not a Part

N

0 100 200 400
Feet

1 inch = 200 feet

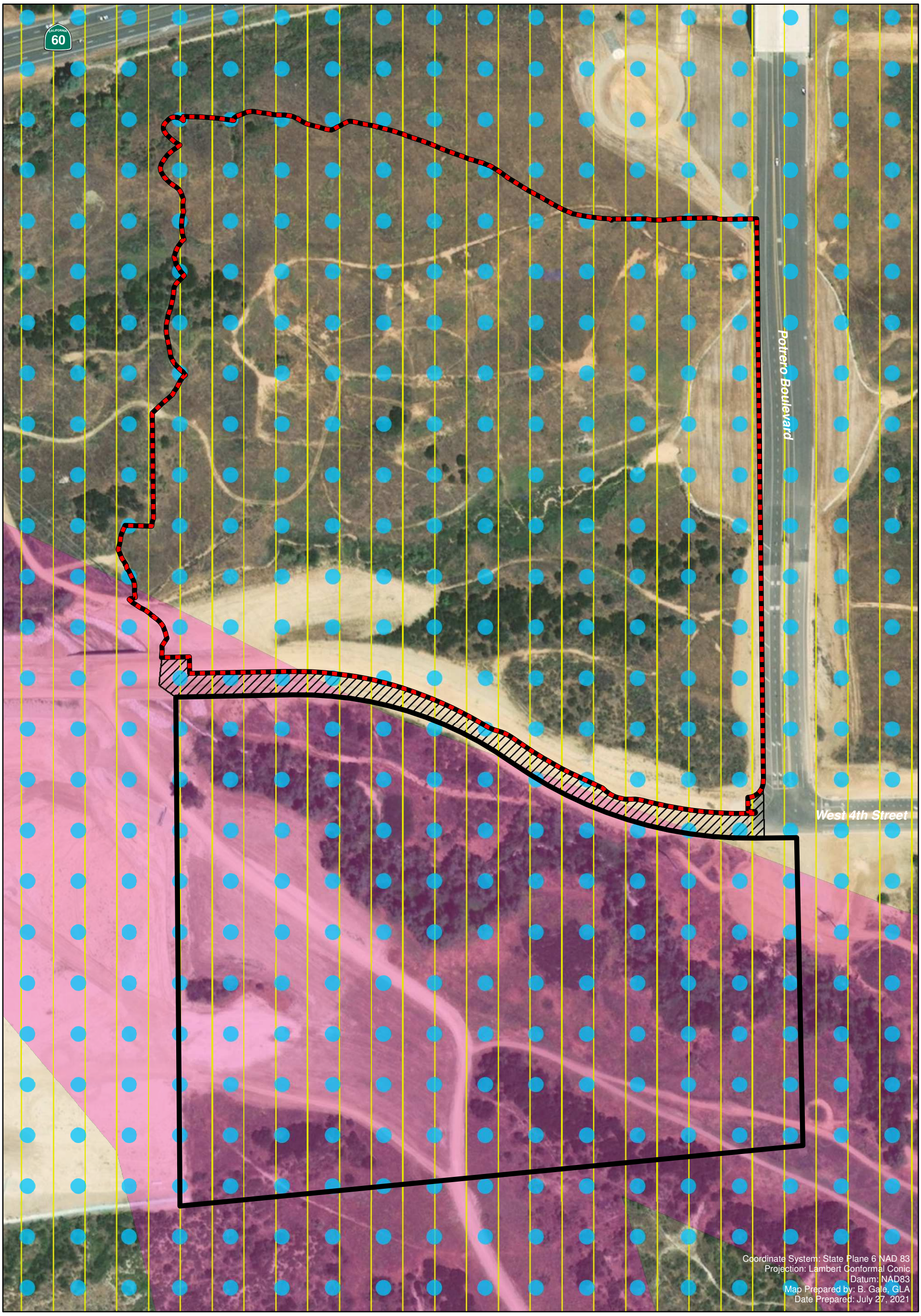
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Site Plan Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\1275-6_SitePlan.mxd



Project Site Boundary

Project Footprint

Not a Part

Burrowing Owl Survey Area

Mammal Survey Area

Narrow Endemic Plant Species Survey Area

N

0 100 200 400

Feet

1 inch = 200 feet

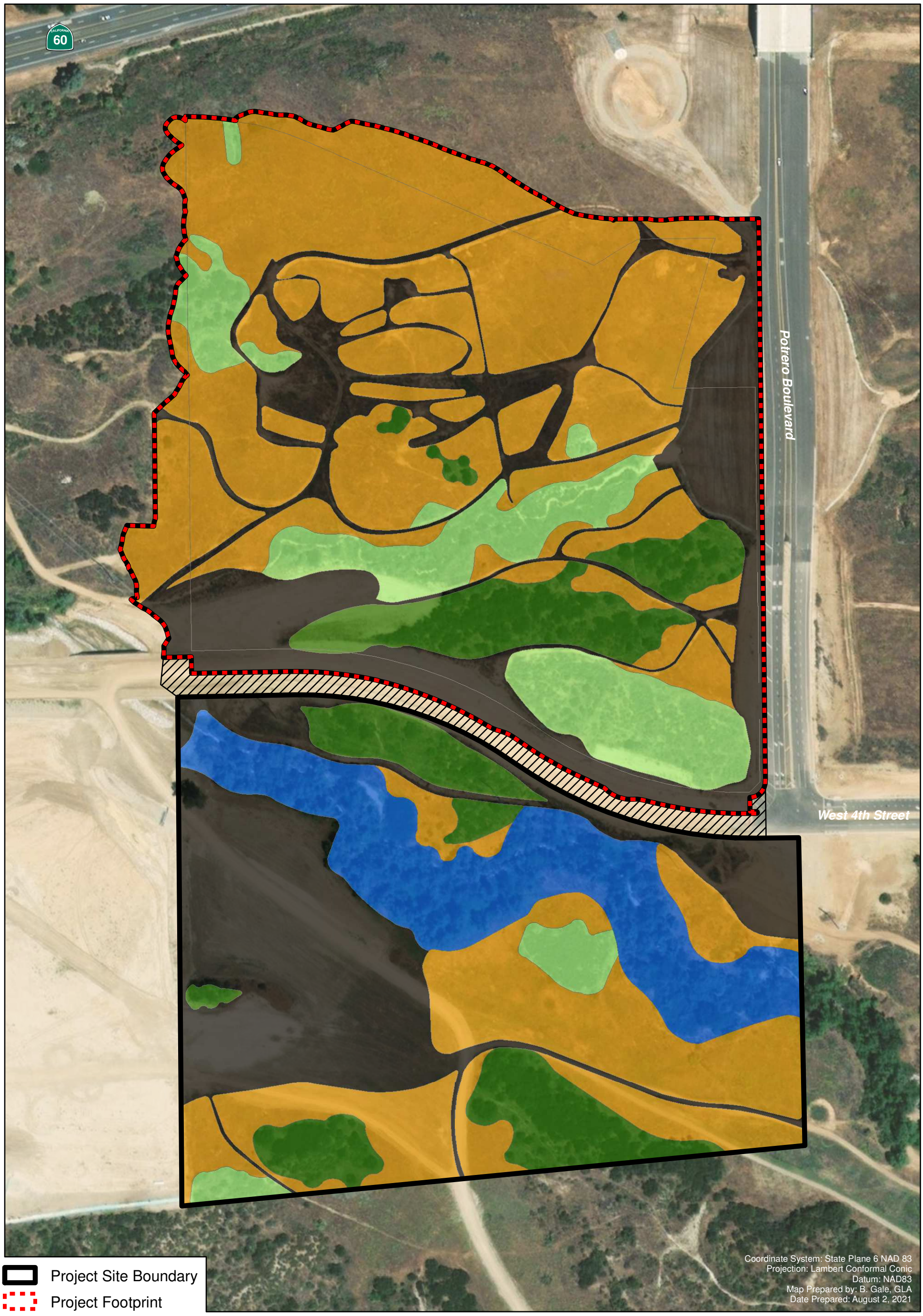
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\MSHCP_GIS\1275-6_MSHCPOverlay.mxd



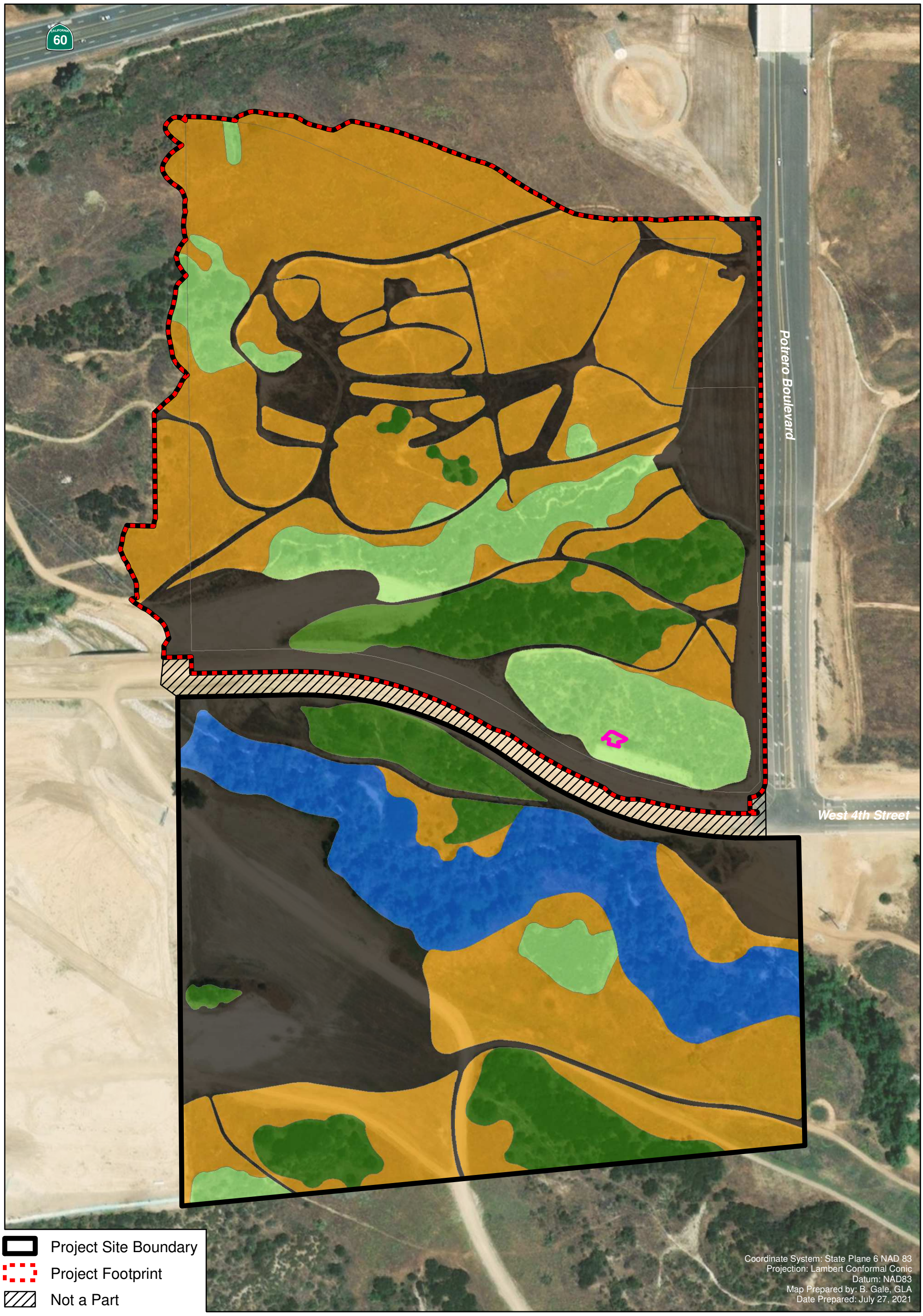
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\VegetationGIS\REV1\1275-6_VegetationREV1.mxd



POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Rare Plant Map

GLENN LUKOS ASSOCIATES

Exhibit 6

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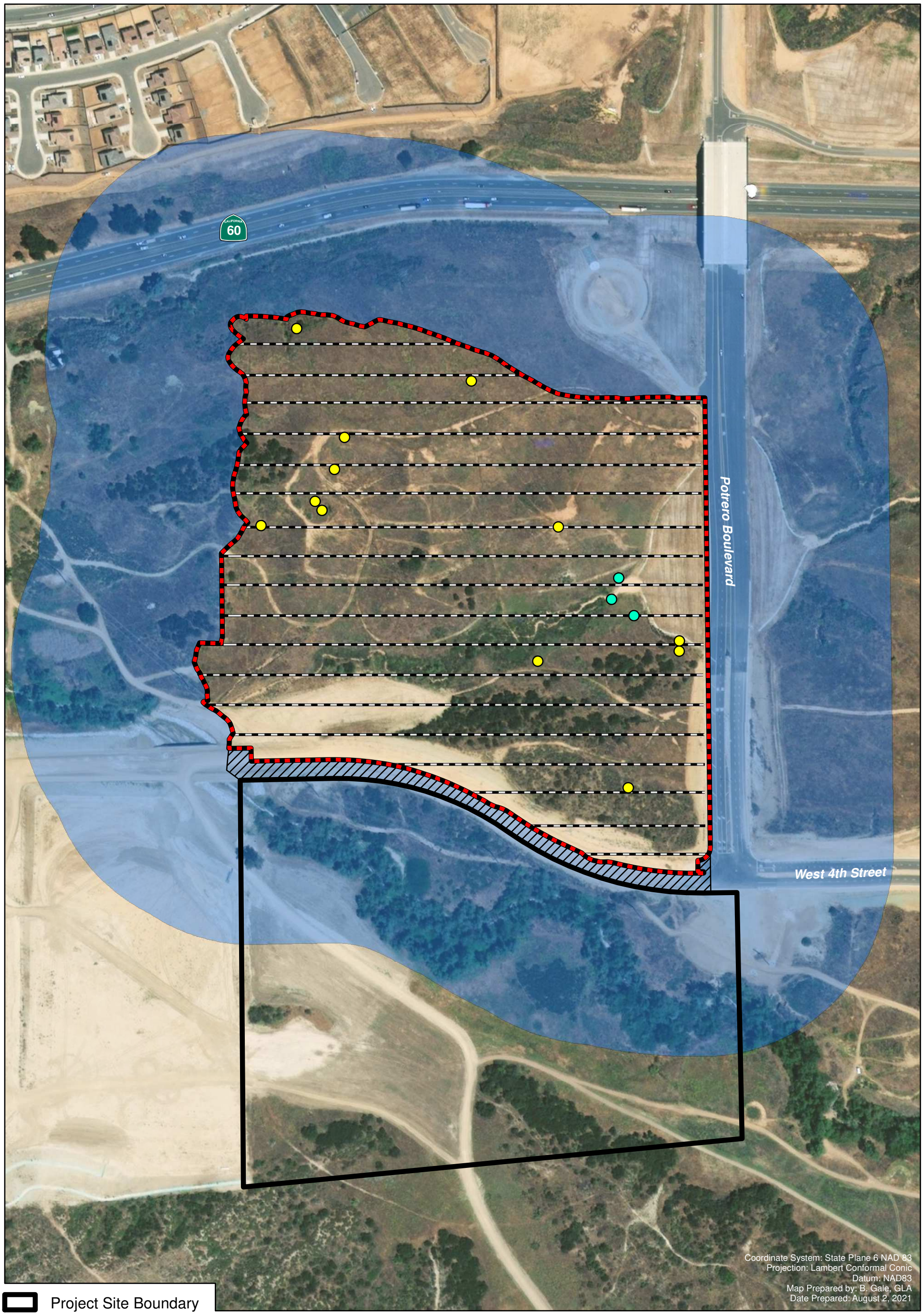


Project Site Boundary
Project Footprint
Not a Part
500' Visual Survey Area
Approximate Transect
Burrow
Burrow Complex

N

0 125 250 500
Feet

1 inch = 250 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: August 2, 2021

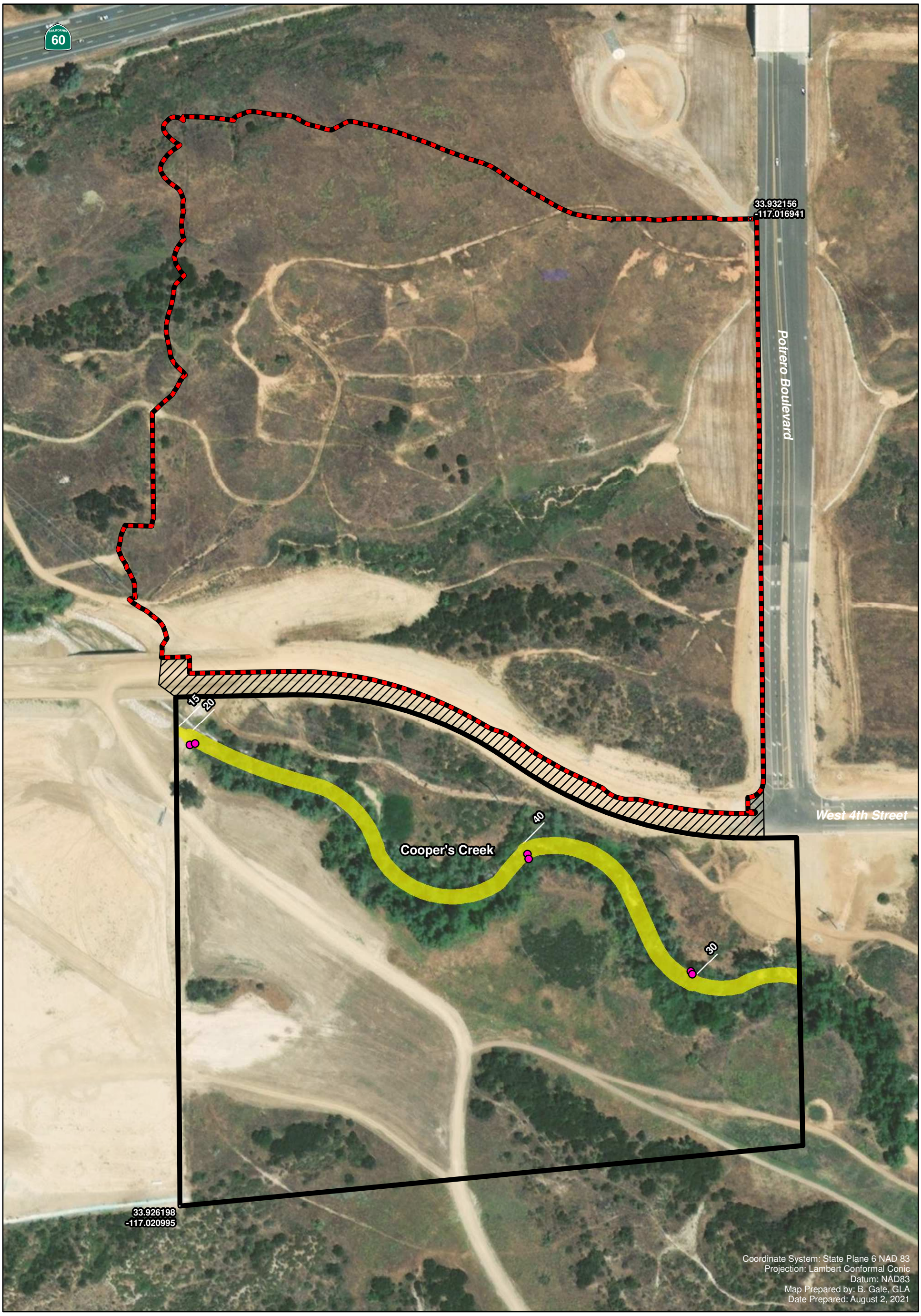
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Burrowing Owl Survey Results Map

GLENN LUKOS ASSOCIATES

Exhibit 7

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\BUOW_GIS\1275-6_BUOW.mxd



Project Site Boundary

Project Footprint

Not a Part

Wetland Waters of U.S.

6 Width of Drainage in Feet

Sample Plot

N

0 100 200 400

Feet

1 inch = 200 feet

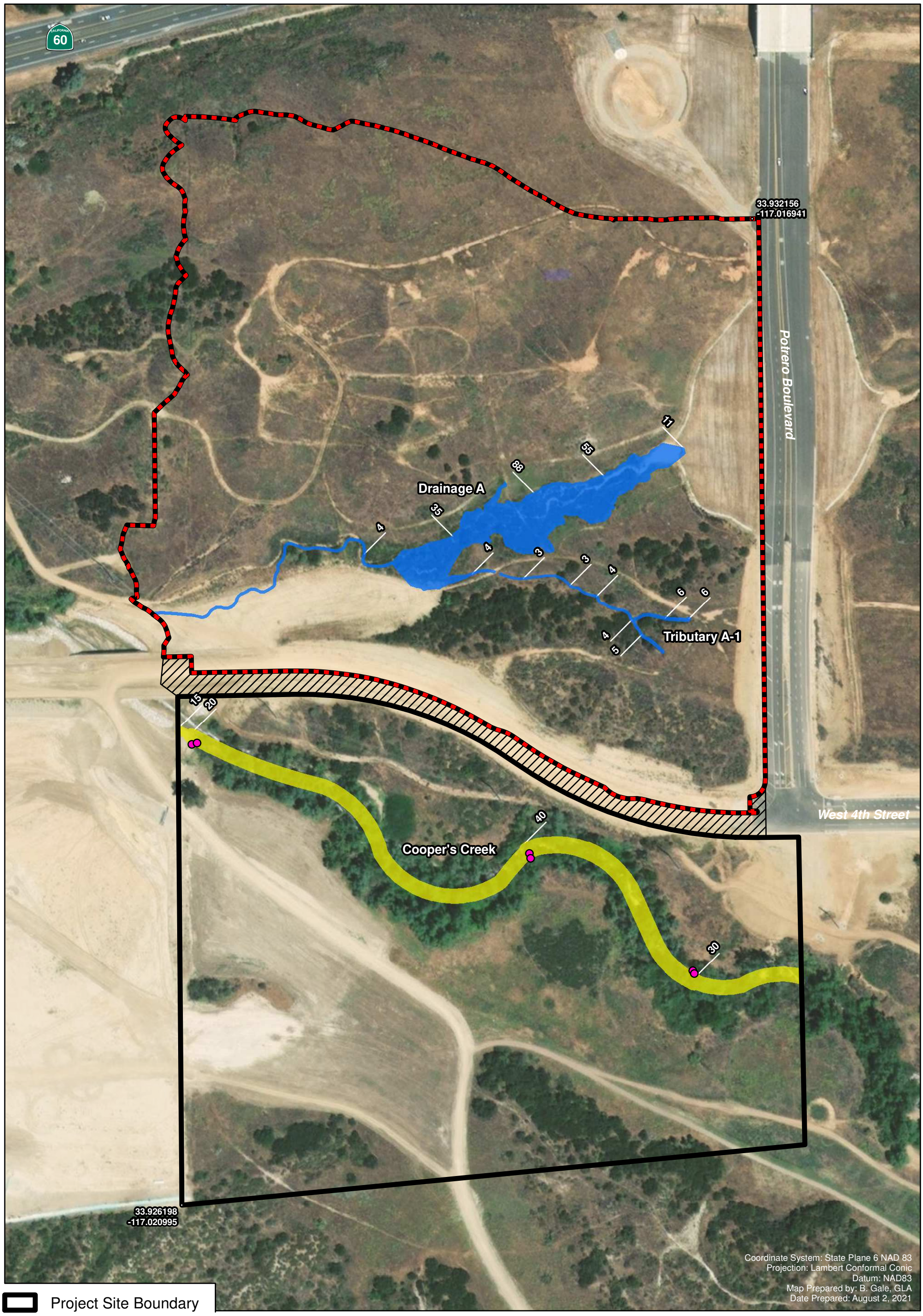
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Corps Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 8A

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\ImpactsGIS\REV1\1275-6_JD_Corps_ImpactsREV1_noPhotos.mxd



Project Site Boundary

Project Footprint

Not a Part

Wetland Waters of U.S./State

Non-Wetland Waters of the State

6 Width of Drainage in Feet

Sample Plot

N

0 100 200 400

Feet

1 inch = 200 feet

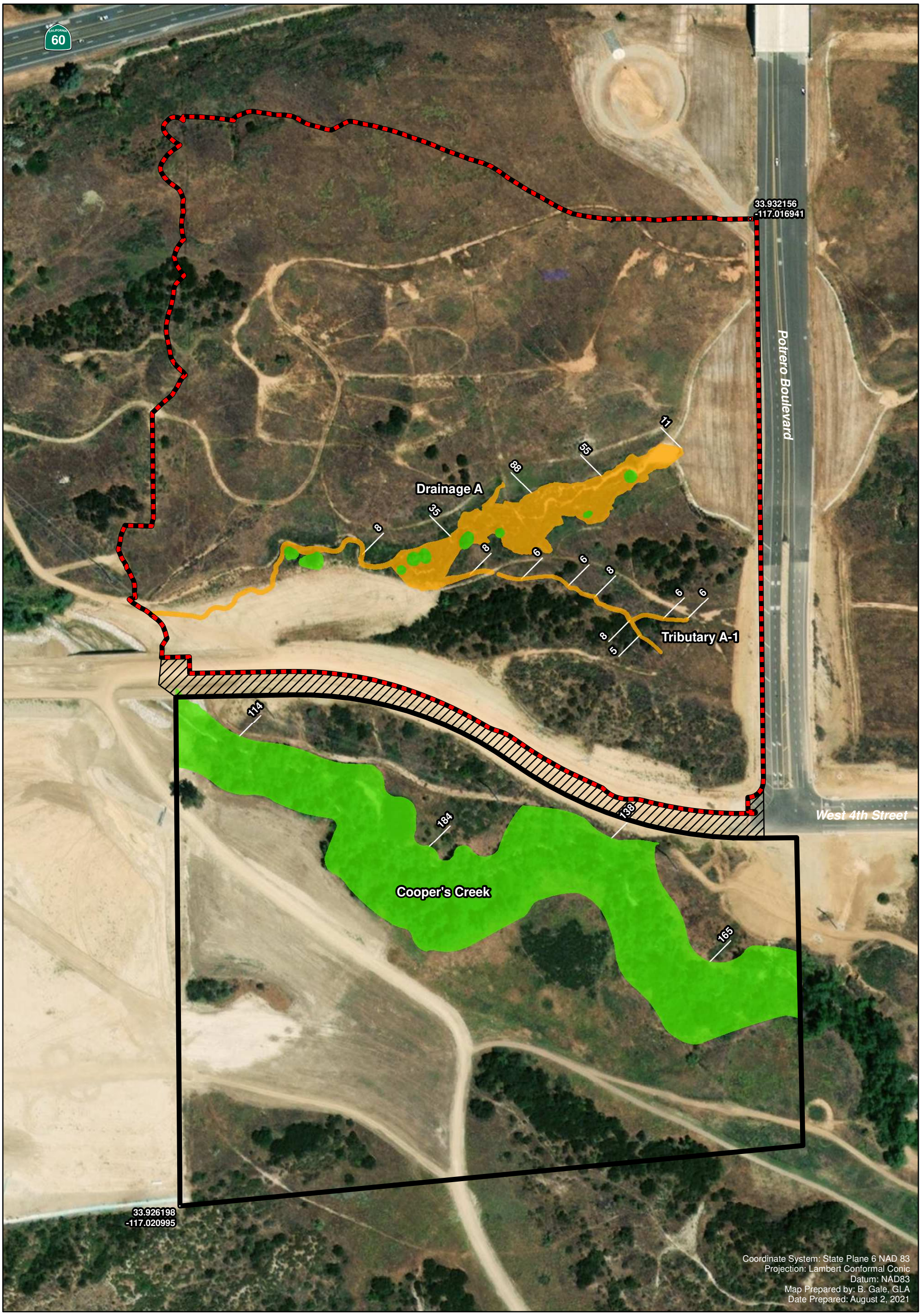
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 8B

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\ImpactsGIS\REV1\1275-6_JD_RWQCB_ImpactsREV1_noPhotos.mxd



Project Site Boundary

Project Footprint

Not a Part

CDFW Riparian Stream

CDFW Non-Riparian Stream

6 Width of Drainage in Feet

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 8C

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\ImpactsGIS\REV1\1275-6_JD_CDFW_ImpactsREV1_noPhotos.mxd

Photograph 1: Representative site photograph taken from the northwestern Project boundary, facing southeast. Note the predominant non-native grassland vegetation community throughout the site (November 17, 2020).

Photograph 2: Representative photograph of Riversidean sage scrub vegetation community. Note the dominance of California buckwheat throughout this area. The photo is facing north (November 17, 2020).

Photograph 3: Representative site photograph taken from the eastern Project boundary, facing west. Note the scrub oak chaparral, Riversidean sage scrub, and non-native grassland vegetation communities (November 17, 2020).

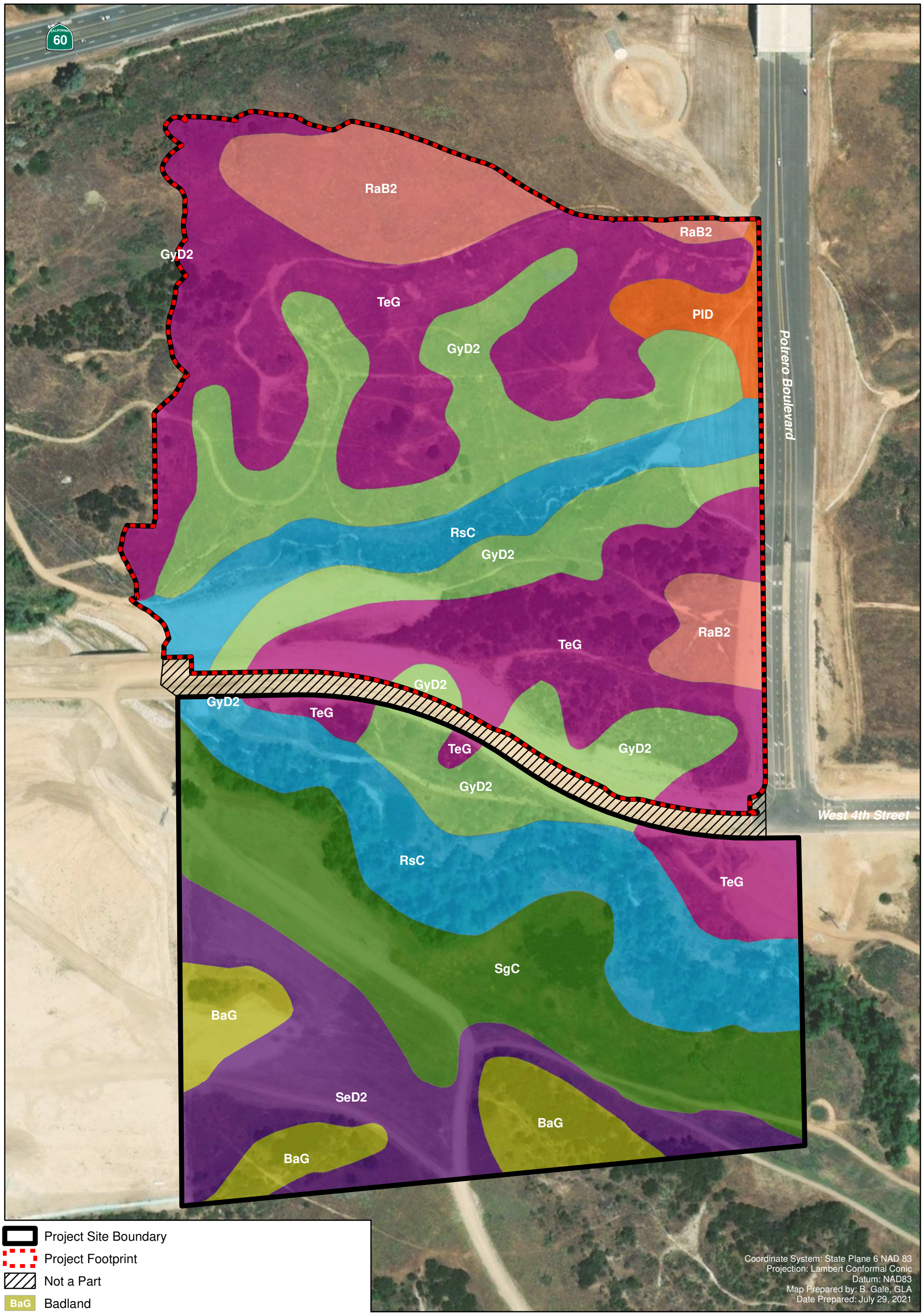
Photograph 4: View of the Riversidean sage scrub vegetation community at the southeastern limit of the Project footprint, facing southeast. Note the active road construction in the background (November 17, 2020).

Photograph 5: View of Cooper's Creek in the avoided southern portion of the Project site. The photo is facing east (December 9, 2020).

Photograph 6: View of the dense willow riparian vegetation community associated with Cooper's Creek. The photo is facing north (November 17, 2020).

Photograph 7: Image of ground squirrel burrow representing suitable habitat for burrowing owl (March 23, 2021).

Photograph 8: View of the southern segment of Drainage A-1. Note the individual scrub oak within the drainage and adjacent non-native grassland community. The photo is facing northwest (December 9, 2020).



Project Site Boundary
Project Footprint
Not a Part
BaG Badland
GyD2 Greenfield sandy loam, 8 to 15 percent slopes, eroded
PID Placentia fine sandy loam, 5 to 15 percent slopes
RaB2 Ramona sandy loam, 2 to 5 percent slopes, eroded
RsC Riverwash
SeD2 San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded
SgC San Emigdio loam, 2 to 8 percent slopes
TeG Terrace escarpments

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: July 29, 2021

N

0 100 200 400
Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 10

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\SoilsGIS\1275-6_Soils.mxd

APPENDIX A
FLORAL COMPENDIUM

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

LEGEND

† Denotes special-status species
* Denotes non-native species

Scientific Name	Common Name
MAGNOLIOPHYTA	**FLOWERING PLANTS**
MONOCOTYLEDONS	**MONOCOTS**
Agavaceae	**Agave Family**
Chlorogalum pomeridianum	Amole
Liliaceae	**Lily Family**
Calochortus splendens	Splendid mariposa
Poaceae	**Grass Family**
**Avena barbata*	Slim oat
**Bromus diandrus*	Ripgut brome
**Bromus hordeaceus*	Soft chess
**Bromus madritensis* ssp. *rubens*	Red brome
**Lamarckia aurea*	Goldentop
**Schismus barbatus*	Common mediterranean grass
Stipa pulchra	Purple needle grass
Themidaceae	**Brodiaea Family**
Dichelostemma capitatum	Wild hyacinth

EUDICOTYLEDONS	EUDICOTS
Adoxaceae	**Moschatel Family**
Sambucus nigra	Black elderberry
Anacardiaceae	**Cashew Family**
Rhus aromatica	Fragrant sumac
Rhus ovata	Sugar bush
Apiaceae	**Carrot Family**
**Conium maculatum*	Poison hemlock
Asteraceae	**Sunflower Family**
Ambrosia acanthicarpa	Annual burrweed
Ambrosia confertiflora	Weak leaved burweed
Artemisia californica	Coastal sage brush
Artemisia dracunculus	Tarragon
Baccharis salicifolia	Mule fat
Corethrogyne filaginifolia	Common sandaster
Ericameria palmeri	Palmer goldenweed
Erigeron canadensis	Canada horseweed
Helianthus annuus	Common sunflower
Heterotheca grandiflora	Telegraph weed
Lasthenia californica	California goldfields
Logfia filaginoides	California cottonrose
**Oncosiphon piluliferum*	Stinknet
**Sonchus asper*	Spiny sowthistle
Stephanomeria virgata	Twiggy wreath plant
Uropappus lindleyi	Silver puffs
Boraginaceae	**Borage Family**
Amsinckia intermedia	Common fiddleneck
Cryptantha intermedia	Common cryptanth
Nemophila menziesii	Baby blue eyes
Pectocarya linearis	Sagebrush combseed
Phacelia distans	Common phacelia
Phacelia ramosissima	Branching phacelia
Plagiobothrys nothofulvus	Rusty haired popcorn flower
Brassicaceae	**Mustard Family**
**Brassica tournefortii*	Saharan mustard
**Hirschfeldia incana*	Summer mustard

Lepidium nitidum	Shining pepper grass
**Sisymbrium altissimum*	Tumble mustard
Cactaceae	**Cactus Family**
Cylindropuntia californica var. *parkeri*	Brownspined pricklypear
Opuntia littoralis	Prickly pear
Chenopodiaceae	**Amaranth Family**
Chenopodium californicum	California goosefoot
**Salsola tragus*	Russian thistle
Convolvulaceae	**Morning Glory Family**
**Convolvulus arvensis*	Field bindweed
Crassulaceae	**Stronecrop Family**
Crassula connata	Sand pygmy weed
Cucurbitaceae	**Cucumber Family**
Marah macrocarpa	Wild cucumber
Euphorbiaceae	**Spurge Family**
Croton californicus	Desert croton
Croton setiger	doveweed
Fabaceae	**Pea Family**
Acmispon americanus	American bird's foot trefoil
Acmispon glaber	Deerweed
Acmispon strigosus	Strigose lotus
Lupinus bicolor	Lupine
Lupinus hirsutissimus	Stinging lupine
**Medicago polymorpha*	California burclover
**Melilotus indicus*	Annual yellow sweetclover
**Vicia villosa*	Hairy vetch
Fagaceae	**Oak Family**
Quercus berberidifolia	Inland scrub oak
Geraniaceae	**Geranium Family**
**Erodium cicutarium*	Coastal heron's bill
Juglandaceae	**Walnut Family**
†*Juglans californica*	Southern California black walnut

Lamiaceae	**Mint Family**
Salvia apiana	White sage
Trichostema lanceolatum	Vinegarweed
Montiaceae	**Miner's Lettuce Family**
Calandrinia menziesii	Red maids
Claytonia parviflora	Narrow leaved miner's lettuce
Myrsinaceae	**Myrsine Family**
**Lysimachia arvensis*	Scarlet pimpernel
Oleaceae	**Olive Family**
Fraxinus dipetala	Two petaled ash
Onagraceae	**Evening Primrose Family**
Camissoniopsis bistorta	California sun cup
Papaveraceae	**Poppy Family**
Eschscholzia californica	California poppy
Plantaginaceae	**Plantain Family**
Plantago erecta	California plantain
Polemoniaceae	**Phlox Family**
Gilia angelensis	Chaparral gilia
Navarretia atractyloides	Holly leaf navarretia
Polygonaceae	**Buckwheat Family**
†*Chorizanthe parryi* var. *parryi*	Parry's spineflower
Eriogonum elongatum	Longstem buckwheat
Eriogonum fasciculatum var. *polifolium*	California buckwheat
Eriogonum gracile	Slender buckwheat
Rhamnaceae	**Buckthorn Family**
Ceanothus sp.	Lilac
Rhamnus crocea	Redberry
Rosaceae	**Rose Family**
Adenostoma fasciculatum	Chamise
Rubiaceae	**Madder Family**
Galium aparine	Cleavers

Salicaceae	**Willow Family**
Populus fremontii	Fremont cottonwood
Salix gooddingii	Gooding's willow, black willow
Salix laevigata	Polished willow
Scrophulariaceae	**Scroph Family**
Scrophularia californica	California bee plant
Solanaceae	**Nightshade Family**
Datura wrightii	Jimsonweed
**Nicotiana glauca*	Tree tobacco
Solanum xanti	Black nightshade
Urticaeae	**Nettle Family**
Urtica dioica	Stinging nettle

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, Bradley, et al. (2014) for mammals, and AOU Checklist (1998) for birds. An (*) denotes non-native species.

REPTILIA

ANGUIDAE
Elgaria multicarinata

IGUANIDAE
Sceloporus occidentalis

PHRYNOSOMATIDAE
Uta stansburiana

REPTILES

Alligator Lizards & Relatives
Southern alligator lizard

Iguanid Lizards
Great Basin fence lizard

Phrynosomatid Lizards
common side-blotched lizard

AVES

ACCIPITRIDAE
Buteo jamaicensis

AEGITHALIDAE
Psaltriparus minimus

ALAUDIDAE
Eremophila alpestris

ANATIDAE
Anas platyrhynchos

AREDEIDAE
Ardea alba

CHARADRIIDAE
Charadrius vociferus

COLUMBIDAE
Columbidae
Zenaida macroura

BIRDS

Hawks
red-tailed hawk

Bushtits
American bushtit

Larks
horned lark

Ducks, Geese, & Swans
mallard

Bitterns
great egret

Shorebirds
killdeer

Pigeons & Doves
rock dove
mourning dove

CORVIDAE		**Crows & Jays**
	Corvus brachyrhynchos	American crow
	Corvus corax	common raven
EMBERIZIDAE		**Emberizids**
	Melospiza melodia	song sparrow
	Passerculus sandwichensis	savannah sparrow
	Pipilo crissalis	California towhee
	Pipilo maculatus	spotted towhee
	Zonotrichia leucophrys	white-crowned sparrow
FRINGILLIDAE		**Fringilline & Cardueline Finches**
	Carpodacus mexicanus	house finch
	Spinus lawrencei	Lawrence's goldfinch
	Spinus psaltria	lesser goldfinch
HIRUNDINIDAE		**Swallows**
	Hirundo rustica	barn swallow
	Stelgidopteryx serripennis	northern rough-winged swallow
	Tachycineta bicolor	tree swallow
ICTERIDAE		**Blackbirds & Orioles**
	Quiscalus mexicanus	great-tailed grackle
	Agelaius phoeniceus	red-winged blackbird
MIMIDAE		**Thrashers**
	Mimus polyglottos	northern mockingbird
	Toxostoma redivivum	California thrasher
ODONTOPHORIDAE		**New World Quails**
	Callipepla californica	California quail
PASSERELLIDAE		**American Sparrows**
	Pooecetes gramineus	vesper sparrow
PASSERIDAE		**Old World Sparrows**
*	*Passer domesticus*	house sparrow
PICIDAE		**Woodpeckers & Allies**
	Colaptes auratus	northern flicker
	Picoides nuttallii	Nuttall's woodpecker
STURNIDAE		**Starlings**
*	*Sturnus vulgaris*	European starling

TIMALIIDAE	**Babblers**
Chamaea fasciata	wrentit
TROCHILIDAE	**Hummingbirds**
Selasphorus sasin	Allen's hummingbird
Calypte anna	Anna's hummingbird
TROGLODYTIDAE	**Wrens**
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	house wren
TYRANNIDAE	**Tyrant Flycatchers**
Sayornis nigricans	black phoebe
Tyrannus vociferans	Cassin's kingbird
Sayornis saya	Say's phoebe

MAMMALIA

MAMMALS

CANIDAE	**Foxes, Wolves, & Allies**
* *Canis familiaris*	domestic dog
Canis latrans	coyote
CRICETIDAE	**Rats, Mice, Voles, & Relatives**
Neotoma fuscipes	dusky-footed woodrat
LEPORIDAE	**Hares**
Sylvilagus bachmani	brush rabbit
Sylvilagus audubonii	desert cottontail
GEOMYIDAE	**Pocket Gophers**
Thomomys bottae	Botta's pocket gopher
SCIURIIDAE	**Squirrels**
Otospermophilus beecheyi	California ground squirrel
SUIDAE	**Pigs, Hogs, & Boars**
* *Sus scrofa*	feral pig

APPENDIX C

Phase One Assessment for the Los Angeles Pocket Mouse

ENVIRA
Aquaculture Fisheries Environmental
P.O. Box 2612, Ramona, California, USA 92065
Phone 619-885-0236 E-mail PHVERGNE@AOL.COM

December 9, 2020

Subject: Phase One Assessment for the Los Angeles Pocket mouse (Perognathus longimembris brevinasus)-[LAPM] on the Beaumont Potrero proposed development project.

A phase one assessment for the Los Angeles pocket mouse was performed for the proposed Beaumont Potrero Development Project and Annexation Area (Figure 1). The survey was performed on December 8, 2020 between the hours of 11:00 Am and 3:00 PM. The entire project footprint area was covered by walking transects.

Field surveys for the Los Angeles pocket mouse (Perognathus longimembris brevinasus) [LAPM] were performed by Mr. Philippe Vergne of ENVIRA who holds a U.S. Fish and Wildlife Service permit to trap and handle Stephens' and San Bernardino Kangaroo rats, Pacific Pocket mouse, and to conduct field studies on sensitive small mammals in Southern California (TE-831207-4), a California Department of Fish and Wildlife (CDFW) Memorandum of Understanding for the above mentioned species and the Mohave ground squirrel, Los Angeles pocket mouse, Palms Springs pocket mouse, Palm Springs ground squirrel, white-eared pocket mouse, Jacumba pocket mouse, north-western San Diego pocket mouse, and the Dulzura pocket mouse, and a current CDFW scientific collection permit.

Los Angeles Pocket Mouse

The LAPM (*Perognathus longimembris brevinasus*) is one of two pocket mice found in this area of Riverside County (Williams 1986). Both the LAPM and the northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) occupy similar habitats, but the northwestern San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the LAPM is described as being confined to lower elevation grasslands and coastal sage scrub habitats, in areas with soils composed of fine sands (Williams 1986). This species prefers habitat similar to that of the Stephens's kangaroo rat and SBKR. It occurs in open sandy areas in the valley and foothills of southwestern California (Hall 1981).

LAPM, like other subspecies of *Perognathus longimembris*, are granivorous rodents and specialize on grass and scrub seeds but will take insects when available (French 1999; Meserve 1976). Pocket mice possess external, fur-lined cheek pouches used in the collecting and caching of seeds. Seeds are cached for use during the colder months of the year.

They spend most of their foraging time in or near bushes, scrubs, rock crevices, or other sources of cover. The LAPM is primarily nocturnal and exhibits a distinct seasonal pattern in surface activity. During colder months the pocket mouse may enter into torpor (dormancy) and not engage in surface activity. This species may enter torpor as early as the end of September;

the exact date may depend on the nightly low temperatures, and the availability of food.

At some point when surface conditions are very cold and food is scarce, the animal cannot meet its energy needs by foraging and thus must shut down surface activity to survive the winter. LAPM must then survive on the food they have cached (Richman and Price 1993). LAPM emerge when the surface ground temperatures are higher than the surrounding ground temperature in their burrows (French 1999).

The LAPM is listed as a California Species of Concern by the CDFW.

Figure One Beaumont Potrero Site Boundaries

EXHIBIT2-2: Local Vicinity
Potrero Logistics Center Warehouse Project

Kimley»Horn

Project Findings

No sign attributable to the LAPM was observed within the project boundaries.

The warehouse portion of the property is covered by dense grasses and limited remnant scrub. The soils are loams and clay and generally unsuitable for LAPM occupancy. Sandy areas within the small deeply incised washes is shallow (less than an inch) probably originated from sheet flow and covers hard clay soils. Typical sand loving plants associated with preferred LAPM habitat such as California croton, and san verbena do not occur on site.

Disturbed Annual Grasslands and loam and clay soils in warehouse area

Deeply Incised un-named drainage with clay soils

The portion of the proposed Annexation area located north of 4th Street (projected) consists of hilly terrain with open scrub and loamy/clay soils in the southern half; and flatter dense disturbed annual grasslands on loam/clay soils on the northern half. No suitable LAPM habitat was found within or adjacent to these areas.

Looking down on Fourth Street from northern portion of Proposed Annexation Area

Looking southwest across proposed northern portion of Proposed Annexation Area

That portion of the proposed Annexation area located south of Fourth Street was trapped by ENVIRA about seven years ago, the targeted species was the Stephens' kangaroo rat. At that time no LAPM were captured. The habitat within that area is not suitable for LAPM occupancy. The drainage is overgrown, adjacent soils are clay loams.

Cooper Creek

Soils adjacent to Cooper Creek. Note Clay clumps in soil

It is our professional opinion that suitable LAPM habitat does not occur on site and that LAPM will not be impacted from the proposed project implementation.

APPENDIX D

Jurisdictional Delineation Report

GLENN LUKOS ASSOCIATES
Regulatory Services

March 17, 2021

Cortland Armour
Armour Properties
3990 Westerly Place, Suite 140
Newport Beach, CA 92660

SUBJECT: Jurisdictional Delineation of the Potrero Logistics Center Warehouse Project in the City of Beaumont, Riverside County, California

Dear Mr. Armour:

This letter report summarizes our preliminary findings of U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW) jurisdiction for the above-referenced property.[1]

The Potrero Logistics Center Warehouse Project (Project) in the City of Beaumont, Riverside County, California [Exhibit 1], comprises approximately 66 acres and contains two blue-line drainages (as depicted on the U.S. Geological Survey (USGS) topographic map El Casco, California [dated 1967 and photorevised in 2015]) [Exhibit 2]. On December 9, 2020, regulatory specialists of Glenn Lukos Associates, Inc. (GLA) examined the Project site to determine the presence and limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), (2) Regional Board jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC), and (3) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. Enclosed are 200'-scale maps [Exhibits 3A, 3B, and 3C] that depict the areas of Corps, Regional Board and CDFW jurisdiction. Photographs to document the topography, vegetative communities, and general widths of each of the waters are provided as Exhibit 4. Wetland data sheets are attached as Appendix A.

Corps jurisdiction at the site totals approximately 1.22 acres, all of which consist of federal wetlands. A total of 1,692 linear feet of streambed is present.

Regional Board jurisdiction at the site totals approximately 2.52 acres, of which 1.22 acres consist of State wetlands. Of the total 2.52 acres, 1.22 acres comprise Corps jurisdiction as the

[1] This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations and written policy and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries.

remaining 1.30 acres represent Regional Board jurisdiction only. A total of 3,880 linear feet of streambed is present.

CDFW jurisdiction at the site totals approximately 7.68 acres, of which approximately 6.33 acres consist of riparian habitat. A total of 3,880 linear feet of stream is present.

I. METHODOLOGY

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the property, the previously cited USGS topographic map, and a soils map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity and/or wetland vegetation, soils, and hydrology. Where applicable, reference was made to the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (OWHM Manual)[2] to identify the width of Corps jurisdiction and suspected federal wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[3] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement).[4] Reference was also made to the 2019 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Board Wetland Definition and Procedures) to identify suspected State wetland habitats.[5] While in the field the potential limits of jurisdiction were recorded with a sub-meter Trimble GPS device in conjunction with a color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

The National Cooperative Soil Survey (NCSS) has mapped the following soil types as occurring in the general vicinity of the Project site and are included on Exhibit 5 (Soils Map):

- Badland (BaG);
- Greenfield sandy loam, 2 to 8 percent slopes, eroded (GyC2);
- Placentia fine sandy loam, 5 to 15 percent slopes, eroded (PlD);

[2] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States
[3] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.
[4] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[5] State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

- Ramona Sandy Loam, 2 to 5 percent slopes, eroded (RaB2);
- Riverwash (RsC);
- San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded (SeD2);
- San Emigdio loam, 2 to 8 percent slopes (SgC); and
- Terrace escarpments (TeG).

The Badland (BaG), Placentia fine sandy loam, 5 to 15 percent slopes, eroded (PlD), and Riverwash (RsC) soils are considered hydric soils per the Hydric Soil Lists for Western Riverside County if they support the following:

- inclusion of an unnamed ponded depression;
- soils that are frequently ponded for long duration or very long duration during the growing season; and
- soils that are seasonally flooded or ponded.

It is important to note that under the Arid West Region Supplement, the presence of mapped hydric soils is no longer dispositive for the presence of hydric soils. Rather, the presence of hydric soils must now be confirmed in the field. As noted, wetland datasheets are provided in Appendix A.

II. JURISDICTION

A. 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), pursuant to the *Navigable Waters Protection Rule*[6] (NWPR), as:

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

(1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;

(2) Tributaries;

[6] U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

(3) Lakes and ponds, and impoundments of jurisdictional waters; and
(4) Adjacent wetlands.

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

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

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

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

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

- 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 Arid West 2016 Regional Wetland Plant List[7],[8]);

- 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 Wetland 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.

B. <u>Regional Water Quality Control Board</u>

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[9] and waters of the

[7] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.
[8] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.
[9] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S.

State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

1. State Wetland Definition

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

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[10] *and*
3. *Artificial wetlands*[11] *that meet any of the following criteria:*

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

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

[11] Artificial wetlands are wetlands that result from human activity.

a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
b. Specifically identified in a water quality control plan as a wetland or other water of the state;
c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[12]

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

[12] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board's authority to issue or waive waste discharge requirements or take other actions as applicable.

C. California Department of Fish and Wildlife

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

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

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

III. RESULTS

The Project site contains three features described herein as Drainage A, Drainage A-1, and Cooper’s Creek. Drainage A is an ephemeral drainage that enters the northeast portion of the site and flows westerly across the site. Drainage A-1 is an ephemeral tributary to Drainage A that begins in the eastern portion of the site and confluences with Drainage A in the central portion of the site. Drainage A is tributary to Cooper’s Creek, which is a perennial creek dominated with riparian and wetland vegetation. Cooper’s Creek flows in a general east to northwest direction through the southern portion of the Project site and is one of the main southern tributaries to San Timoteo Creek. A summary of each feature as it pertains to Corps, Regional Board, and CDFW potential jurisdiction within the Project site is discussed below.

A. Corps Jurisdiction

Corps jurisdiction associated with the Project site totals approximately 1.22 acres of waters of the United States, all of which consist of federal wetlands (1,692 linear feet).

Corps jurisdiction is limited to Cooper's Creek, a perennial stream. Drainage A and Drainage A-1 are ephemeral streams that flow only in direct response to precipitation (e.g., rain). Pursuant to the *Navigable Waters Protection Rule*, ephemeral features, including ephemeral streams, swales, gullies, rills, and pools are not considered waters of the U.S. regardless of the presence or absence of an OHWM. Tributaries must satisfy the flow conditions of the definition described in 33 U.S.C. 1251 et seq. and its implementing regulations (33 CFR Part 328.3). As a result, these features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA.

Table 1 below summarizes Corps jurisdictional waters associated with the Project site. A description of the Corps jurisdictional drainage feature associated with the Project site is outlined below. The boundaries of Corps jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3A].

1. Cooper's Creek

Corps jurisdiction associated with Cooper's Creek totals 1.22 acres, all of which consist of federal wetlands, and a total of 1,692 linear feet of perennial streambed. Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek.

During the field delineation, Cooper's Creek exhibited open flowing water approximately 8 to 12 feet in width and an active channel width of 15 to 40 feet, which was noted as the limits of the ordinary high water mark (OHWM).

Vegetation within the Project site associated with Cooper's Creek consisted of black willow (*Salix gooddingii*, FACW), polished willow (*Salix laevigata*, FACW), black walnut (*Juglans californica*, FACU), Fremont's cottonwood (*Populus fremontii*, FACW), and black elderberry (*Sambucus nigra*, FACU) as the dominant riparian canopy forming species. Dominant wetland vegetation within the riparian understory comprised of mule fat (*Baccharis salicifolia*, FAC), stinging nettle (*Urtica dioica*, FAC), Southern California grape (*Vitis girdiana*, FACU), and cattail (*Typha sp.*, OBL).

Six representative sample plots (1-6) were assessed to obtain soil profiles, vegetation types, and the presence of hydrology on the banks of the creek adjacent to flowing water. As shown within Appendix A, all six sample plots met the criteria for hydrophytic vegetation. Sample plots 1, 3, and 5 also met the hydric soil and wetland hydrology indicators.

Table 1: Summary of Corps Jurisdiction

Drainage Name	Corps Non-Wetland Waters (acres)	Corps Jurisdictional Wetlands (acres)	Total Corps Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	1.22	1.22	1,692
Total	**0**	**1.22**	**1.22**	**1,692**

B. Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction associated with the Project totals approximately 2.52 acres, of which 1.22 acres consist of State wetlands and 1.30 acres consist of non-wetland State waters. This includes 1,692 linear feet of wetland stream and 2,187 linear feet of ephemeral, non-wetland stream.

Regional Board jurisdiction includes Cooper's Creek, which as stated above, is considered a water of the U.S. and subject to Corps jurisdiction under Section 404 of the CWA. Since this feature is considered waters of the U.S., it is subject to Regional Board jurisdiction under Section 401 of the CWA.

Drainages A and A-1 are characterized as ephemeral drainage features that convey surface water only in direct response to precipitation (e.g., rain) and do not meet the criteria for regulation by the Corps under Section 404 of the CWA. Since ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA, these features are also not subject to Regional Board jurisdiction pursuant to Section 401 of the CWA. However, since these features convey surface flow with the potential to support beneficial uses, they are considered to be waters of the State that would be regulated by the Regional Board pursuant to Section 13260 of the California Water Code (CWC)/the Porter-Cologne Act.

Table 2 below summarizes Regional Board jurisdictional waters associated with the Project site. A description of the Regional Board jurisdictional drainage features associated with the Project site is outlined below. The boundaries of Regional Board jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3B].

1. Cooper's Creek

Regional Board jurisdiction associated with Cooper's Creek totals 1.22 acres, all of which is State wetland waters. A total of 1,692 linear feet of streambed is present. As stated above, Cooper's Creek is considered a wetland water of the U.S. that is subject to both Corps and Regional Board jurisdictions under Sections 404 and 401 of the CWA.

Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek.

During the field delineation, Cooper's Creek exhibited open flowing water approximately 8 to 12 feet in width and an active channel width of 15 to 40 feet.

Vegetation within the Project site associated with Cooper's Creek consisted of black willow, polished willow, black walnut, Fremont's cottonwood, and black elderberry as the dominant riparian canopy forming species. Dominant wetland vegetation within the riparian understory comprised of mule fat, stinging nettle, Southern California grape, and cattail.

2. Drainage A

Regional Board jurisdiction associated with Drainage A totals 1.22 acres, all of which consist of non-wetland waters of the State. A total of 1,489 linear feet of streambed is present. This feature is considered a water of the State that is subject to Section 13260 of the CWC/the Porter-Cologne Act.

Drainage A enters the northeastern portion of the Project site from a 48-inch corrugated metal pipe culvert that runs under the newly constructed Potrero Boulevard, as depicted on Exhibit 3B. From the culvert, Drainage A follows a natural east to southwest path for approximately 1,489 feet until it exits the Project site. The drainage has been modified as a result of receiving stormwater flows from upstream development and Potrero Boulevard, including becoming larger in width and more incised. It exhibited characteristics of a low-flow channel, sediment size differences, and smaller braided channels throughout most of its length. The upstream portion of Drainage A is approximately 11 feet in width and then widens to an approximately 100-foot active channel. Following the topography of the site to the southwest, Drainage A's width decreases to approximately 30 feet prior to its conveyance with Drainage A-1 in the central portion of the Project site and becomes incised to 6 feet in width for the remaining length until it exits the site.

Vegetation associated with Drainage A is dominated by a mix scrub oak chaparral and intermittent riparian vegetation. Vegetation species consist of scrub oak (*Quercus berberidifolia*, NL), mule fat, black elderberry, California buckwheat (*Eriogonum fasciculatum var. polifolium*, FACU), Russian thistle (*Salsola tragus*, FACU), and red brome (*Bromus madritensis ssp. rubens*, UPL).

3. Drainage A-1

Regional Board jurisdiction associated with Drainage A-1 totals 0.08 acre, all of which consists of non-wetland waters of the State. A total of 699 linear feet of streambed is present. This feature is considered a water of the State that is subject to Section 13260 of the CWC/the Porter-Cologne Act.

Drainage A-1 originates on the Project site within the eastern boundary. Based on historic aerial images and topographic maps, Drainage A-1 occurs as two erosional feature segments that have become incised ephemeral channels over time. As depicted on Exhibit 3B, Drainage A-1 begins in the eastern portion of the Project site and continues in a west-northwest direction for approximately 699 feet until it terminates into Drainage A.

The upstream portion of Drainage A-1 is approximately 6 feet in width on the northern segment and 5 feet in width within the southern segment. These segments continue down slope for approximately 150 feet each until they converge. Average widths in the downstream sections of Drainage A-1 are approximately 7 feet wide as the drainage continues into Drainage A.

Vegetation associated with Drainage A-1 is a mix scrub oak chaparral and Riversidean sage scrub plant communities. Dominant species consist of scrub oak, chamise (*Adenostoma fasciculatum*, UPL), California sage brush (*Artemisia californica*, UPL), doveweed (*Croton setiger*, UPL), California buckwheat, and non-native annuals, such as summer mustard (*Hirschfeldia incana*, NL), Russian thistle, and red brome.

Table 2: Summary of Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	1.22	1.22	1,692
Drainage A	1.22	0	1.22	1,489
Drainage A-1	0.08	0	0.08	699
Total	**1.30**	**1.22**	**2.52**	**3,880**

C. CDFW Jurisdiction

CDFW jurisdiction associated with the Project totals approximately 7.68 acres and includes all areas within Corps and/or Regional Board jurisdiction. Of this total, 6.33 acres consist of riparian stream and 1.35 acres consist of non-riparian stream. A total of 3,880 linear feet of stream is present. This includes 1,692 linear feet of riparian stream and 2,188 linear feet of ephemeral, non-riparian stream.

As stated above, the Project site contains one perennial feature (Cooper's Creek) and two ephemeral drainage features (Drainage A and A-1). Each of these features exhibited flow sign with the presence of a bed and bank. Additionally, the entirety of Cooper's Creek includes a riparian stream as does portions of Drainage A. As such, these features are subject to CDFW jurisdiction under Section 1602 of the Fish and Game Code.

Table 3 below summarizes CDFW jurisdictional waters associated with the Project site. A description of the CDFW jurisdictional drainage features associated with the Project site is outlined below. The boundaries of CDFW jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3C].

1. Cooper's Creek

CDFW jurisdiction associated with Cooper's Creek totals 6.21 acres, all of which consists of riparian stream. A total of 1,692 linear feet of riparian stream is present. Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek. Cooper's Creek is a perennial stream that exhibits a defined bed, bank, and channel. As shown on Exhibit 3C, Cooper's Creek contains an average riparian canopy width of approximately 150 feet throughout its length within the Project's southern boundary.

Riparian vegetation associated with the creek included black willow, polished willow, Fremont's cottonwood, and black elderberry as the dominant riparian canopy-forming species. Mule fat, stinging nettle, Southern California grape, and cattail comprised the dominant wetland vegetation within the riparian understory.

2. Drainage A

CDFW jurisdiction associated with Drainage A totals 1.35 acres, of which 0.12 acre consists of riparian stream. A total of 1,489 linear feet of stream is present. This feature exhibited ephemeral

flow sign with the presence of a bed, bank, channel, and is sporadically vegetated with riparian vegetation.

Drainage A enters the northeastern portion of the Project site from a 48-inch corrugated metal pipe culvert that runs under the newly constructed Potrero Boulevard, as depicted on Exhibit 3C. From the culvert, Drainage A follows a natural east to southwest path for approximately 1,489 feet until it exits the Project site. The drainage has been modified as a result of receiving stormwater flows from upstream development, including becoming larger in width and more incised. It exhibited characteristics of a low-flow channel, sediment size differences, and smaller braided channels throughout most of its length. The upstream portion of Drainage A is approximately 11 feet in width and then widens to an approximately 100-foot active channel. Following the topography of the site to the southwest, Drainage A's width decreases to approximately 30 feet prior to its conveyance with Drainage A-1 in the central portion of the Project site and becomes incised to 6 feet in width for the remaining length until it exits the site.

Vegetation associated with Drainage A is dominated by a mix scrub oak chaparral and intermittent riparian vegetation. Vegetation species consist of scrub oak, mule fat, black elderberry, California buckwheat, Russian thistle, and red brome.

3. Drainage A-1

CDFW jurisdiction associated with Drainage A-1 totals 0.12 acre, all of which consists of non-riparian stream. A total of 699 linear feet of stream is present. This feature exhibited ephemeral flow sign with the presence of a bed, bank, and channel.

Drainage A-1 originates on the Project site within the eastern boundary. Based on historic aerial images and topographic maps, Drainage A-1 occurs as two erosional feature segments that have become incised features with defined bed and banks. As depicted on Exhibit 3C, Drainage A-1 begins in the eastern portion of the Project and continues in a west-northwest direction for approximately 699 feet until it converges with Drainage A. The upstream portion of Drainage A-1 is approximately 6 feet in width on the northern segment and 5 feet in width within the southern segment. These segments continue down slope for approximately 150 feet until they converge. Average widths in the downstream sections of Drainage A-1 are approximately 7 feet wide as the drainage continues into Drainage A.

Vegetation associated with Drainage A-1 consist of scrub oak, chamise, California sage brush, doveweed, California buckwheat, summer mustard, Russian thistle, and red brome.

Table 3: Summary of CDFW Jurisdiction

Drainage Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	6.21	6.21	1,692
Drainage A	1.23	0.12	1.35	1,489
Drainage A-1	0.12	0	0.12	699
Total	**1.35**	**6.33**	**7.68**	**3,880**

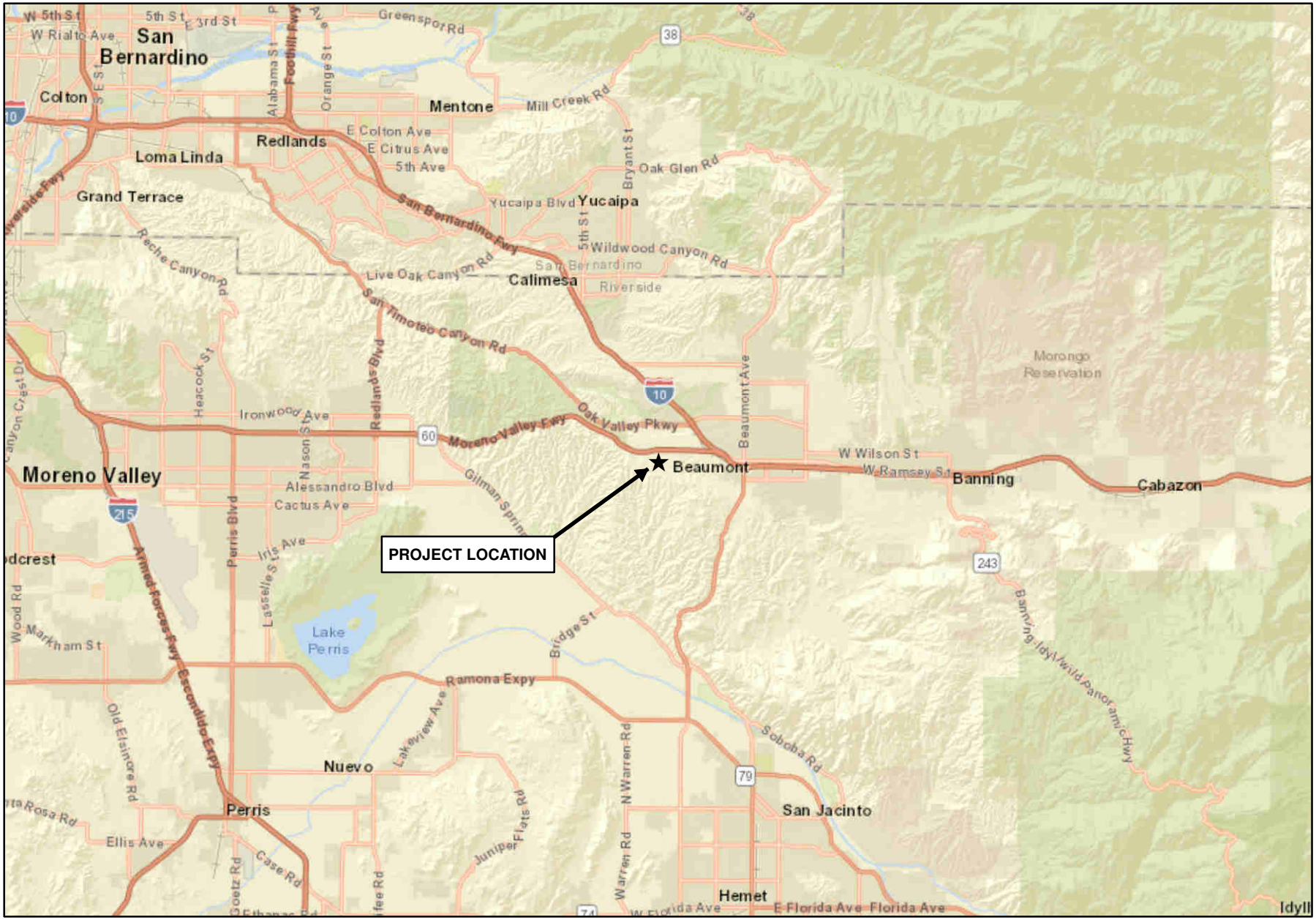
If you have any questions about this letter report, please contact Lexi Kessans at (949) 837-0404.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

Chris Waterston
Regulatory Specialist

p:1275-6-a.jd.rpt



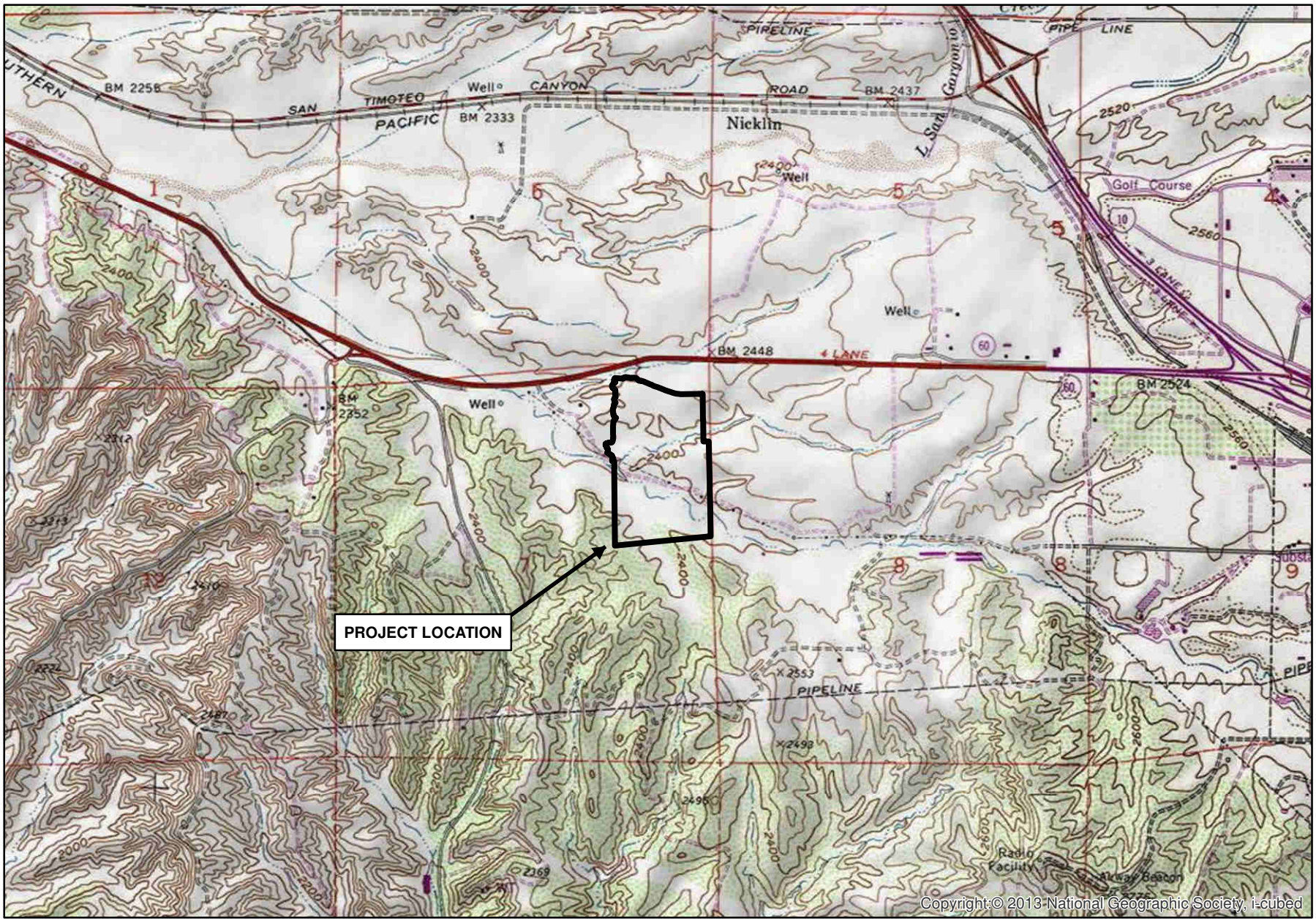
Source: ESRI World Street Map

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS El Casco, CA quadrangle

N

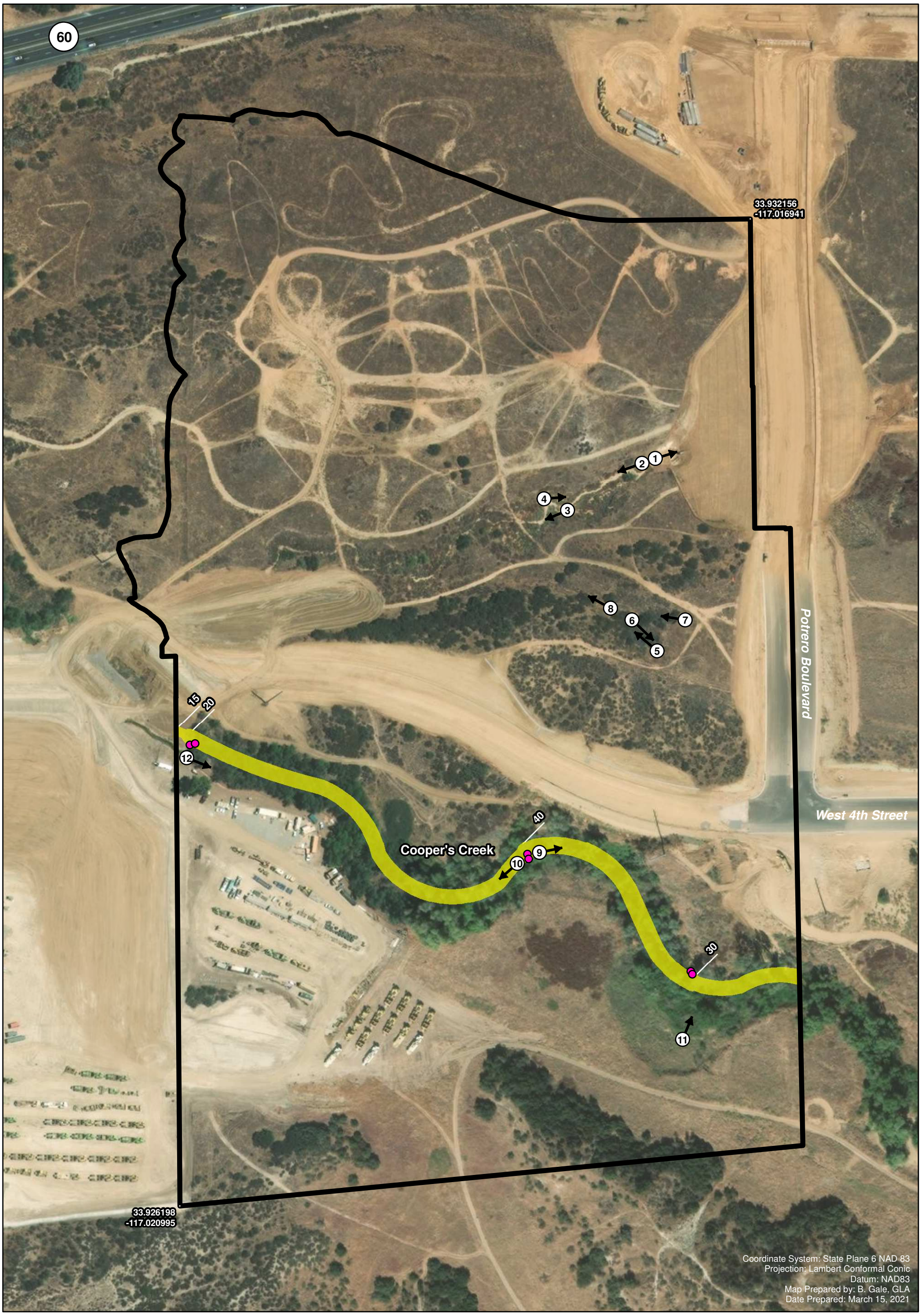
0 1,000 2,000 4,000 Feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project Site

Wetland Waters of U.S.

6 Width of Drainage in Feet

Sample Plot

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

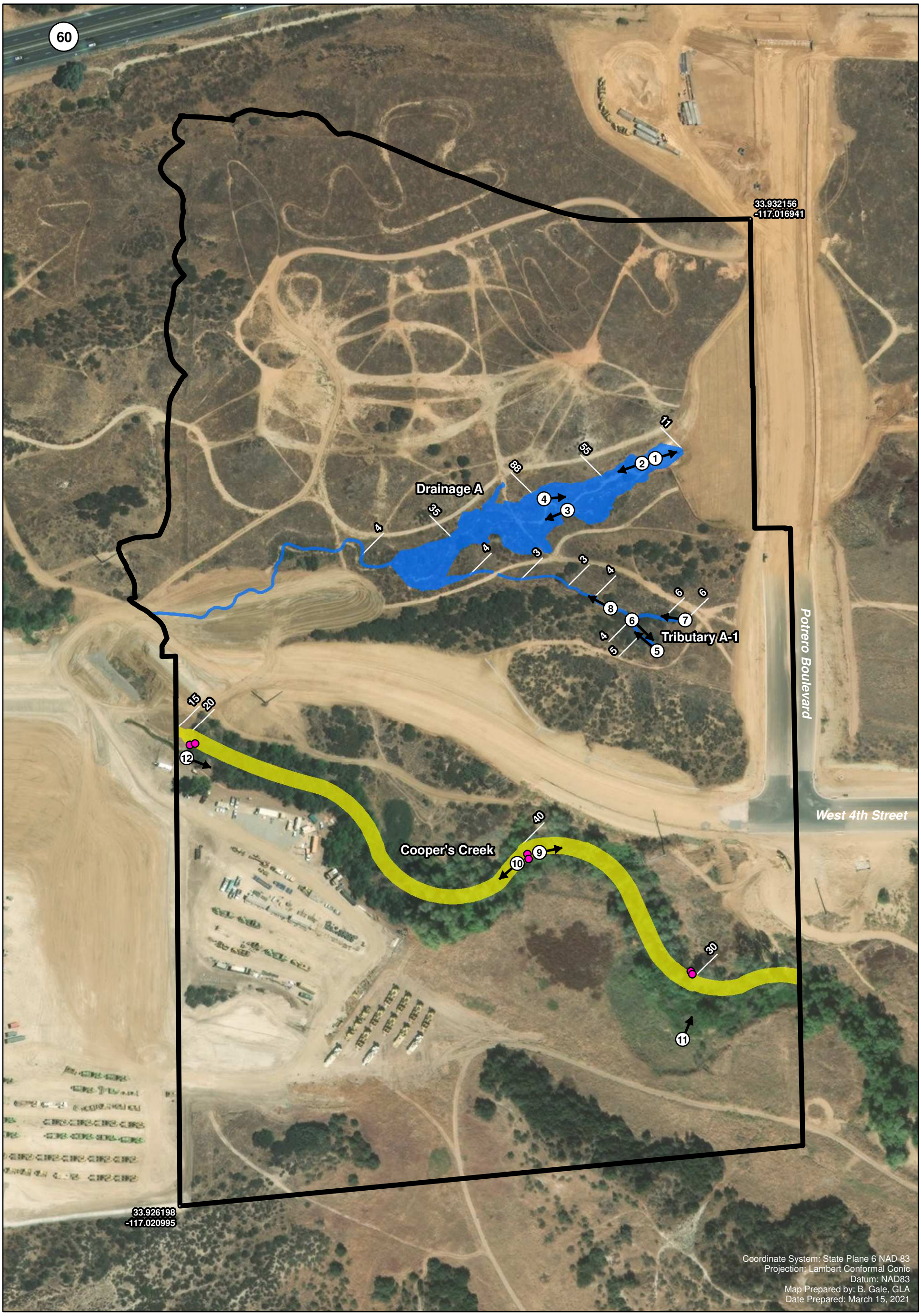
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Corps Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3A

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\DelineationGIS\1275-6_JD_Corps.mxd



Project Site

Wetland Waters of U.S./State

Non-Wetland Waters of the State

6 Width of Drainage in Feet

Sample Plot

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

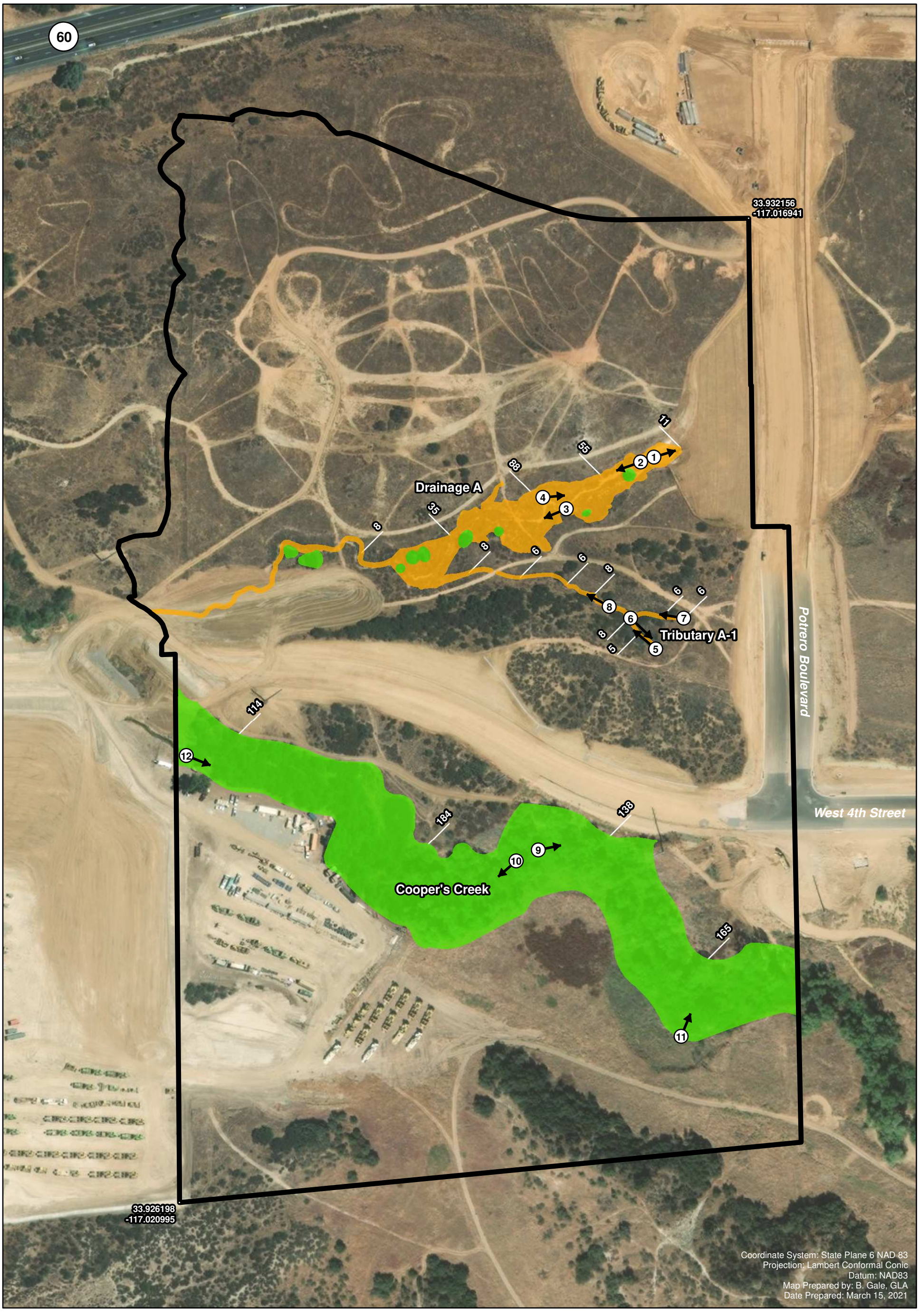
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3B

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\DelineationGIS\1275-6_JD_RWQCB.mxd



Project Site

CDFW Riparian Stream

CDFW Non-Riparian Stream

6 Width of Drainage in Feet

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3C

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\DelineationGIS\1275-6_JD_CDFW.mxd

Photograph 1: A view of Drainage A as it enters the site through a culvert under Potrero Blvd. The photo is facing east.

Photograph 2: A view of Drainage A in the eastern portion of the site. Note the evidence of recent flow and a stand of riparian trees (Elderberry) in the background. The photo is facing west.

Photograph 3: A view of Drainage A in the central portion of the site. Note the upland sage scrub vegetation and the beginning of channel incision. The photo is facing southwest.

Photograph 4: A view of Drainage A in the central portion of the site. Note the severe channel incision. The photo is facing east.

Photograph 5: A view of the southern segment of Drainage A-1. Note the coverage of upland vegetation and scrub oak. The photo is facing northwest.

Photograph 6: A view of Drainage A-1 as the southern and northern segments converge. The photo is facing southeast.

Photograph 7: A view of the northern segment of Drainage A-1. Note the similar upland vegetation as photo 5. The photo is facing west.

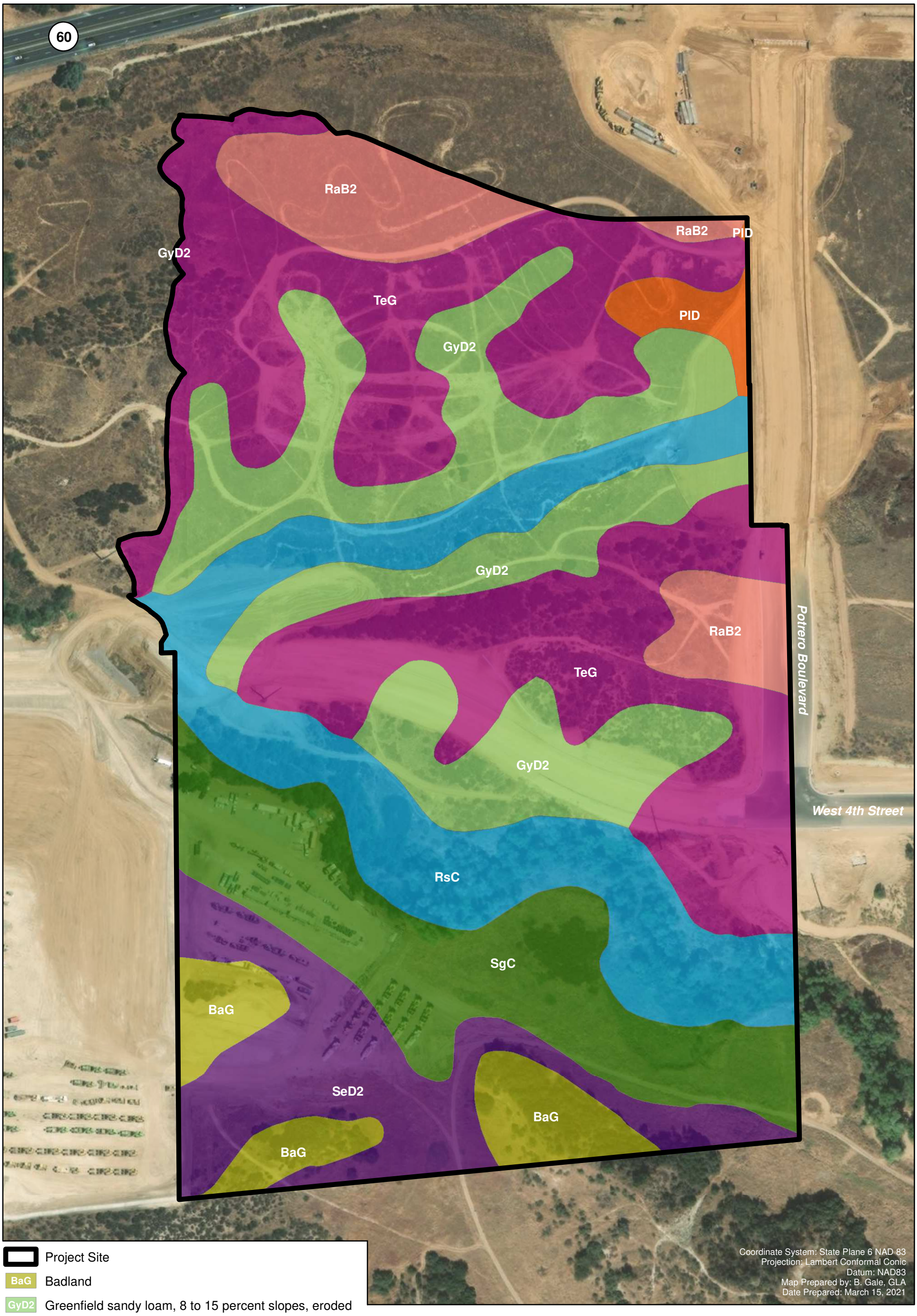
Photograph 8: A view of Drainage A-1. Note the incised channel and upland scrub oak vegetation. The photo is facing west.

Photograph 9: A view of Cooper's Creek in the southern portion of the site. Note the active channel width extends out from the water level shown here. The photo is facing east.

Photograph 10: A view of Cooper's Creek. Note the wetland vegetation and riparian canopy. The photo is facing southwest.

Photograph 11: A view of the dense riparian vegetation associated with Cooper's Creek. The photo is facing north.

Photograph 12: A view of the riparian and wetland vegetation associated with Cooper's Creek at the western boundary of the site.



- Project Site
- BaG — Badland
- GyD2 — Greenfield sandy loam, 8 to 15 percent slopes, eroded
- PID — Placentia fine sandy loam, 5 to 15 percent slopes
- RaB2 — Ramona sandy loam, 2 to 5 percent slopes, eroded
- RsC — Riverwash
- SeD2 — San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded
- SgC — San Emigdio loam, 2 to 8 percent slopes
- TeG — Terrace escarpments

N

0 100 200 400

Feet

1 inch = 200 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: March 15, 2021

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 5

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\SoilsGIS\1275-6_Soils.mxd

APPENDIX A
WETLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): _____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches):

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): _____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

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Field Observations:

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Water Table Present? Yes ☑ No ☐ Depth (inches): 12

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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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Applicant/Owner: Armour Properties State: CA Sampling Point: 1

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Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): _____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

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SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

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2.			
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5.			
6.			
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2.			
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[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

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- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches):

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): _____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches):

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): _____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches):

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): _____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches):

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches):

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX E

2020-2021 Wet Season Survey Results for Listed Branchiopods

GLENN LUKOS ASSOCIATES
Regulatory Services

May 27, 2021

Ms. Stacey Love
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

SUBJECT: Submittal Requirements for 2020-2021 Wet Season Survey for Listed Branchiopods Conducted for the Potrero Logistics Center Warehouse Project, City of Beaumont, Riverside County, California

Dear Ms. Love:

This letter report documents the results of a wet season survey conducted by Glenn Lukos Associates, Inc. (GLA) for five seasonally ponded features at the Potrero Logistics Center Warehouse Project in the City of Beaumont. GLA biologist Kevin Livergood (TE-172638-2) conducted the wet season survey with the objective of determining the presence or absence of federally-listed Riverside fairy shrimp (*Streptocephalus woottoni*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), and vernal pool fairy shrimp (*Branchinecta lynchi*).

As a result of below-average rainfall, the identified features did not exhibit ponding suitable for fairy shrimp during the 2020-2021 wet season. Due to the lack of suitable ponding, survey results are inconclusive for this survey season.

I. SITE LOCATION AND DESCRIPTION

The project site is located in the City of Beaumont, Riverside County, California [Exhibit 1 – Regional Map] within Section 7, Township 3 South, and Range 1 West of the El Casco, California USGS 7.5-minute quadrangle map [Exhibit 2 – Vicinity Map]. The project site is bounded by US 60 to the north, Potrero Road to the east, West 4th Street to the south, and new development to the west. Universal Transverse Mercator (UTM) coordinates approximately corresponding to the property are 498243 mE and 3754545 mN. The five depressional features that comprise the seasonal pool study area (Study Area) are identified on Exhibit 3 – Survey Area Map.

The approximate UTM coordinates of the features that were monitored for suitable ponding are:

- Feature 1: Zone 11 south; 498299.48 mE and 3754351.27 mN
- Feature 2: Zone 11 south; 498331.46 mE and 3754347.31 mN
- Feature 3: Zone 11 south; 498360.17 mE and 3754631.56 mN
- Feature 4: Zone 11 south; 498315.25 mE and 3754643.33 mN
- Feature 5: Zone 11 south; 498208.78 mE and 3754607.76 mN

II. METHODOLOGY

GLA biologist Kevin Livergood (TE-172638-2) submitted a request for authorization to conduct fairy shrimp surveys to the United States Fish and Wildlife Service (USFWS) Carlsbad field office on December 16, 2020. On January 4, 2021, the USFWS responded with authorization to proceed with wet and dry season sampling utilizing methods prescribed in the USFWS *Survey Guidelines for the Listed Large Branchiopods* (Survey Guidelines) dated November 13, 2017[1]. In accordance with the Survey Guidelines, site visits were conducted within 24 hours of rain events to determine whether features contained a minimum of three centimeters (cm) of ponding. Under typical conditions, sampling commences within seven days of initial ponding. However, due to below-average rainfall during the 2020-2021 wet season, the identified features did not exhibit ponding suitable for extended sampling for fairy shrimp.

The dates of ponding assessments and the weather conditions on site during the assessments are recorded on the included wet season datasheets [Appendix A]. Photographs were taken of the depressional features during the wet season survey period and are attached as Exhibit 4 – Site Photographs.

III. DESCRIPTION OF THE DEPRESSIONAL FEATURES

The Project Site contains five depressions that exhibit characteristics of seasonal ponding. These depressions are referenced as Features 1 through 5 on the attached Survey Area map and are described below.

Feature 1

Feature 1 is located on the southern end of the Survey Area. The feature occurs on a former hiking trail along a low topographical ridge that is now isolated as a result of permitted grading to the south and east. The dimensions of ponding were approximately 1 meter (m) by 1 m, with an average depth of 6 centimeters (cm). At maximum ponding, the feature is approximately 9

[1] USFWS. *Survey Guidelines for the Listed Large Branchiopods*, Revised: November 13, 2017.

cm deep. The ponded portion of the feature is unvegetated with native recruitment of California sagebrush (*Artemisia californica*) around the depression perimeter.

Feature 2

Feature 2 is located approximately 80 feet east of Feature 1 on the same isolated trail segment. The typical dimensions of ponding were approximately 1.5 m by 6 m, with an average depth of 10 cm. At maximum ponding, the feature is approximately 15 cm deep. The ponded portion of the feature is unvegetated. Vegetation adjacent to the feature is composed predominantly of California sagebrush.

Feature 3

Feature 3 is located in the northeast corner of the Survey Area. The feature is a slight depression on the south side of a former access road. The typical dimensions of ponding were approximately 0.5 m by 1 m, with an average depth of 5 cm. At maximum ponding, the feature is approximately 10-12 cm deep. The ponded portion of the feature is vegetated with non-native grasses (*Bromus* sp.) and wild oat (*Avena* sp.).

Feature 4

Feature 4 is located near the northern boundary of the Survey Area. The feature is a slight depression on the south side of a former access road. The typical dimensions of ponding were approximately 0.5 m by 1.5 m, with an average depth of 2.5 cm. At maximum ponding, the feature is approximately 7-8 cm deep. The ponded portion of the feature is vegetated with non-native grasses and wild oat.

Feature 5

Feature 5 is located east of Features 3 and 4 on the same access road as Features 3 and 4. The feature was identified after a late-season rain event. Prior to the storm, the location did not exhibit ponding. However, once it ponded off-highway vehicles created deep ruts in the otherwise shallow depression. The dimensions of ponding were approximately 3 m by 7 m, with an average depth of 15 cm. At maximum ponding the feature is approximately 20 cm deep. The depression is unvegetated.

IV. RESULTS OF WET SEASON SURVEY

As a result of below-average rainfall, the surveyed depressions did not exhibit ponding suitable for fairy shrimp sampling. Based on the hydrology observed during the 2020-2021 wet season,

Feature 5 exhibits characteristics most suitable for fairy shrimp. The duration of ponding observed at the other depressional features was less than seven days, which is insufficient for the development of special-status fairy shrimp. However, in years of average to above-average rainfall, all of the observed features are expected to sustain ponding greater than three centimeters deep. The duration of ponding is likely contingent on the frequency of rain-producing storm systems.

Table 1 indicates when site visits were conducted to assess ponding during the 2020-2021 wet season. Ponding depth is noted for depressions that exhibited inundation. The USFWS acknowledges three centimeters as the minimum ponding depth to initiate sampling for fairy shrimp. No fairy shrimp, common or listed, were observed during the 2020-2021 wet season.

Table 1: Wet Season Survey Dates and Results

Survey	Feature Name				
Date	**1**	**2**	**3**	**4**	**5**
12/30/20	Dry	<3cm	Dry	Dry	Dry
1/6/21	Dry	Dry	Dry	Dry	Dry
1/26/21	Dry	Dry	Dry	Dry	Dry
2/3/21	Dry	<3cm	Dry	Dry	5cm
2/9/21	Dry	Dry	Dry	Dry	Dry
3/12/21	6cm	10cm	<3cm	5cm	15cm
3/19/21	Dry	Dry	Dry	Dry	8cm
3/26/21	Dry	Dry	Dry	Dry	Dry

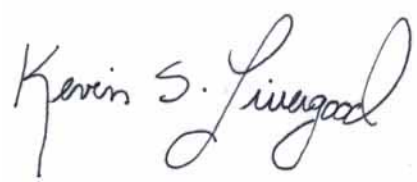
Due to the lack of rainfall, the 2020-2021 wet season survey results are inconclusive in determining the presence or absence of listed branchiopods at the Potrero Logistics Center Warehouse Project Site.

In order to complete the survey protocol requirements, it is recommended that dry season surveys be conducted in the summer of 2021, followed by wet season surveys during the 2021-2022 rainy season.

I certify that the information in this survey report and the attached exhibits fully and accurately represent my work. If you have any questions regarding this report, please contact me via email at klivergood@wetlandpermitting.com.

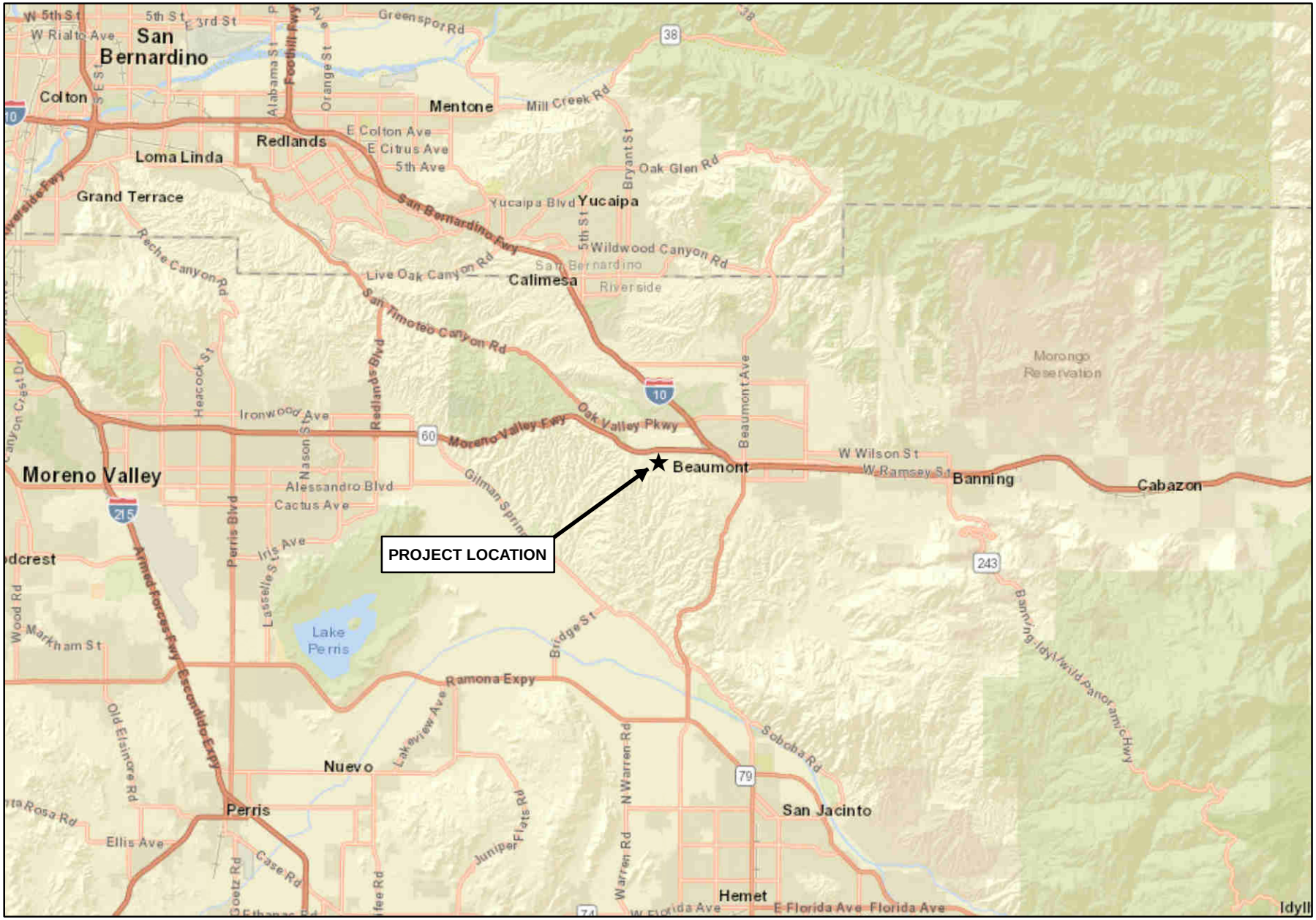
Sincerely,

GLENN LUKOS ASSOCIATES, INC.



Kevin Livergood
Biologist (TE-172638-2)

P:1275-6a.FairShrimp.wet2021.rpt

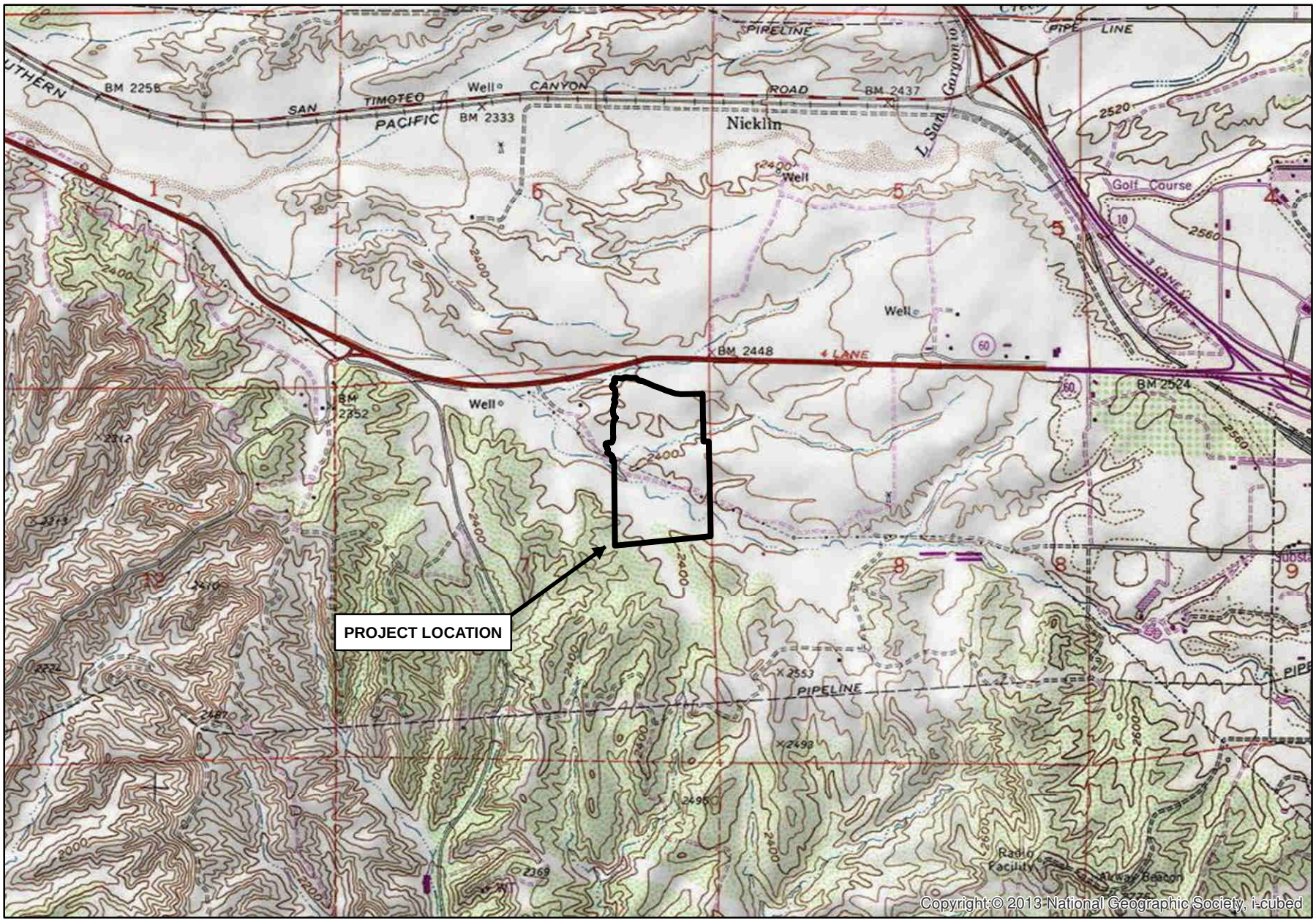


POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS El Casco, CA quadrangle

N

0 1,000 2,000 4,000 Feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

Project Site

Surveyed Feature

N

0 87.5 175 350

Feet

1 inch = 175 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: May 14, 2021

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Fairy Shrimp Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\FairyShrimpGIS\1275-6_FSSurveyArea.mxd

Photograph 1: View to the east of Feature 1 within 24 hours of a winter rain event. No ponding was observed, and no fairy shrimp were detected.
(UTM: 498299.48 mN, 3754351.27 mE Date: 12/30/20; K. Livergood)

Photograph 2: View to the east of Feature 1 within 24 hours of a spring rain event. No ponding was observed, and no fairy shrimp were detected.
(Date: 3/12/21; K. Livergood)

Photograph 3: View to the east of Feature 2 within 24 hours of a winter rain event. No fairy shrimp were detected.
(UTM: 498331.46 mN, 3754347.31186 mE Date: 12/30/20; K. Livergood)

Photograph 4: View to the east of Feature 2 within 24 hours of a spring rain event. No fairy shrimp were detected.
(UTM: 498331.46 mN, 3754347.31186 mE Date: 3/12/21; K. Livergood)

Photograph 5: View to the east of Feature 3 within 24 hours of a spring rain event. Very limited ponding was observed, and no fairy shrimp were detected.
(UTM: 498360.17 mN, 3754631.56 mE Date: 3/12/21; K. Livergood)

Photograph 6: View to the east of Feature 4 within 24 hours of a spring rain event. Limited ponding was observed, and no fairy shrimp were detected.
(UTM: 498315.25 mN, 3754643.33 mE Date: 3/12/21; K. Livergood)

Photograph 7: View to the east of Feature 5 within 24 hours of a spring rain event. No fairy shrimp were detected.
(UTM: 498208.78 mN, 3754607.76 mE Date: 3/12/21; K. Livergood)

Photograph 8: View to the west of Feature 5 after less than two weeks of ponding.
(Date: 3/23/21; K. Livergood)

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 11275-6POTR (Potrero)	**County:** Riverside	**Quad:** El Casco	**Township:** T3S	**Range:** R1W	**Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 12/30/20 | Time: 1130 | Weather Conditions: 63°F, clear, 7-10mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			Rain 12/28-12/29/20 1.20"
1		17.2	—	—		—												D	Damp, no ponding
2		17.2		2.5		1.5x1												D	
3		17.2	—	—		—												D,TT	Dry
4		17.2	—	—		—												D,TT	Dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 11275-6POTR (Potrero)	**County:** Riverside	**Quad:** El Casco	Township: T3S	Range: R1W	Section: 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 1/6/21 Time: 1030 Weather Conditions: 64°F, clear, 7-15g20 mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		17.7	–	–		–												D	Dry
2		17.7	–	–		–												D	Dry
3		17.7	–	–		–												D, TT	Dry
4		17.7	–	–		–												D, TT	Dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = dislurbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero)	County: Riverside	Quad: El Casco	Township: T3S	Range: R1W	Section: 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 1/26/21 Time: 1230 Weather Conditions: 43°F, 15% cc, 2-4 mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		6.1	–	–		–		–	–	–	–	–							Dry
2		6.1	–	–		–		–	–	–	–	–							Dry
3		6.1	–	–		–		–	–	–	–	–						D, RR	Dry
4		6.1	–	–		–		–	–	–	–	–						D, RR	Dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero) | **County:** Riverside | **Quad:** El Casco | **Township:** T3S | **Range:** R1W | **Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 2/3/21 | Time: 1145 | Weather Conditions: 63°F, 40% cc, 3-5 g 12

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		17.2	-	-		-		-	-	-	-	-			-			D, TT	DS
2		17.2	-	-		-		-	-	-	-	-			-			D, TT	DS
3		17.2	-	-	5-8	-	1x1	-	-	-	-	-			-			D, TT	DS
4		17.2	-	43cm	5.7	0.5 x 2	1x7	-	-	-	-	-			-			D, TT	
5		17.2	14.4	5	10	3x8	3x8	-	-	-	-	-			-			D, TT, AB	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero) | **County:** Riverside | **Quad:** El Casco | **Township:** T3S | **Range:** R1W | **Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 2/9/21 | Time: | Weather Conditions: 57°F, 60% cc, 3g9

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		15	–	–		–		–	–	–	–	–							Dry
2		15	–	–		–		–	–	–	–	–							Dry
3		15	–	–		–		–	–	–	–	–							Dry
4		15	–	–		–		–	–	–	–	–							Dry
5		15	–	–		–		–	–	–	–	–							Dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli).*
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero) | **County:** Riverside | **Quad:** El Casco | **Township:** T3S | **Range:** R1W | **Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 3/12/21 | Time: 1200 | Weather Conditions: 45°F Post-rain hydrology assessment

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		7.2	✓	6	8	1x1	1.5x2	–											Trail Depression
2		7.2	✓	10	15	1x10	2x8	–											Trail Depression
3		7.2	✓	25	7.5	1x1	1.5x2	–										D,TT	Road Rut Burrows
4		7.2	✓	5	10-12	.5x1.5	1x2	–										D,TT	Road Rut Burrows
5		7.2	✓	15	20	3x7	3x9	–										D,TT	Road rut Burrows

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-LPOTR (Potrero) | **County:** Riverside | **Quad:** El Casco | **Township:** T3S | **Range:** R1W | **Section:**

SURVEYOR / Permit Number: David Moskovitz (TE-084606-3)/Kevin Livergood (TE-172638-2)

Date: 3/19/21 | **Time:** 1610 | **Weather Conditions:** 72°F, 10%cc, 8-10mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher Information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1-Dry		22.2	–	–	8	–	1.5x2	–	–	–	–	–			–			D, TT	Dry
2-Dry		22.2	–	–	15	–	2x8	–	–	–	–	–			–			D, TT	Dry
3-Dry		22.2	–	–	7.5	–	1.5x2	–	–	–	–	–			–			D TT	Dry
4-Dry		22.2	–	–	10-12	–	1x2	–	–	–	–	–			–			D TT	Dry
5		22.2	18.8	8	20	2x5	3x9	–	–	–	–	–			–			D, TT, AB	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
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(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

3,5 veg: Hordeum, R.S. Clover, dove weed
Br. diandrus

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero) | **County:** Riverside | **Quad:** El Casco | **Township:** T3S | **Range:** R1W | **Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 3/26/21 | Time: 1335 | Weather Conditions: 54°F, 15% cc, 4-5mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1-Dry		12.2	–	–		–		–	–	–	–	–			–			D,TT	Dry
2-Dry		12.2	–	–		–		–	–	–	–	–			–			D,TT	Dry
3-Dry		12.2	–	–		–		–	–	–	–	–			–			D,TT	Dry
4-Dry		12.2	–	–		–		–	–	–	–				–			D,TT	Dry
*5-Dry		12.2	–	–	20	–	3x9	–	–	–	–				–			D,TT	Dry
*no crustaceans or FS or other inverts.																			

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Biological Resources Assessment, Jurisdictional Delineation & MSHCP Compliance Report
Beaumont – Potrero Interchange Industrial Warehouse

Assessor Parcel Numbers 424-010-005, 424-010-007, 424-010-009

Beaumont, Riverside County, California

USGS 7.5' *El Casco*, Quadrangle
NE ¼ of Section 1, Township 3 South, Range 2 West, San Bernardino Base Meridian.

Prepared for:

Kimley-Horn
Attn: Kari Cano
3880 Lemon Street, Suite 420
Riverside, CA 92501

Prepared May 2019

Prepared by:

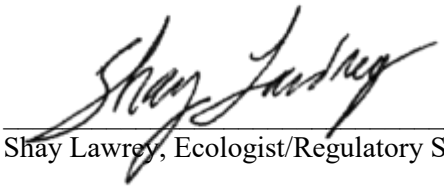
Jericho Systems, Inc.
47 1st Street, Suite 1
Redlands, CA 92373-4601

Certification

Jericho Systems, Inc
47 N 1st ST, STE 1
Redlands, California 92373
(909) 915-5900

Contact: Shay Lawrey, President, and Ecologist/Regulatory Specialist

Certification: I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this analysis to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and standards. Fieldwork conducted for this assessment was performed under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project proponent and that I have no financial interest in the project.



Shay Lawrey, Ecologist/Regulatory Specialist

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1 Introduction

Jericho Systems, Inc. (Jericho) is pleased to provide this Biological Resources Assessment/Jurisdictional Delineation (BRA/JD) and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis prepared for the Potrero Interchange Industrial Warehouse Project (Project) which encompasses approximately 51.68 acres within Assessor's Parcel Numbers (APNs) 424-010-009, 424-010-005, 424-010-007 in the City of Beaumont, Riverside County, California.

The Project site is located within the Western Riverside County Multiple Species Habitat Plan (MSHCP) area and as such is subject to the conditions and conservation requirements identified in the MSHCP. Riverside County adopted the MSHCP on June 17, 2003. The City of Beaumont is signatory to the MSHCP Implementing Agreement and thereby a permittee responsible for meeting the terms and conditions outlined in the MSHCP and the Biological Opinion issued for the MSHCP. Therefore, the City of Beaumont has the responsibility to ensure the projects they approve are consistent the MSHCP and will not preclude the overall conservation goals and reserve design from being accomplished.

The MSHCP is a criteria-based plan and identification of planning units on which to base the Criteria is necessary for such a criteria-based plan. 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. The MSHCP coverage area is divided into Area Plans (AP) based on the Riverside County's General Plan Area Plan boundaries. Each of the AP's has: established conservation criteria, species specific surveys that may be required based on on-site Habitat Assessment, and resources and areas identified for conservation. In each Area Plan text, applicable Cores and Linkages are identified.

There are 146 species covered by the MSHCP. Surveys are not required for 106 of these covered species. The remaining 40 covered species may require focused surveys for proposed development projects include 4 birds, 3 mammals, 3 amphibians, 3 crustaceans, 14 Narrow Endemic Plants, and 13 other sensitive plants within the Criteria Area. The need to conduct focused surveys for all but six of these 40 species is determined by the presence of suitable habitat within designated 'survey areas' mapped for each of the species. The remaining six species that require focused surveys throughout the entire MSHCP area are associated with riparian/riverine areas and vernal pools and include least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp.

The site is not mapped within a criteria cell, and therefore not targeted for conservation. However, the plan requires that a project comply with the MSHCP policies identified in Section 6 of the MSHCP. This project must comply with the following policies: 1) Riparian/Riverine Areas/ Vernal Pools; 2) Narrow Endemic Plant Species (many-stemmed dudleya Dudleya multicaulis, Marvin's onion Allium marviniii); 3) Urban/Wildlands Interface; and 4) Surveys for Special Status Species (burrowing owls Athene cunicularia [BUOW]) and Los Angeles pocket mouse Perognathus longimembris brevinasus [LAPM]).

Studies completed for this Project include the following:

- General Biological Resources Assessment
- Habitat Suitability Assessments for
    - BUOW
    - LAPM
    - many-stemmed dudleya
    - Marvin's onion
    - Riverine/Riparian/Vernal Pool
- Jurisdictional Delineation
- Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

1.1 Property Description

The Project site is comprised of two parcels; Assessor's Parcel Number (APN) 424-010-005 and 424-010-009. APN 424-010-005 was recently annexed into the City of Beaumont and is at the southwest corner of Potrero Blvd. and Highway 60. Parcel number 424-010-005 is located within City of Beaumont and parcel number 424-010-009 is located within Riverside County and will require annexation into the City of Beaumont. APNs 424-010-005 has a zoning classification of Commercial General in the City of Beaumont. The subject property at 424-010-009 has a zoning classification of W-2 which is Controlled Development Area according to the County of Riverside Zoning Ordinance.

The proposed development project, which is a "high-cube" logistic warehouse is an approximately 636,160 square foot warehouse building located on approximately 46 acres within the overall annexation area.

1.2 Project Location

The Project site is located on the south side of Highway 60 in Beaumont, California. The site is bounded to the north by Highway 60, to the east by the future alignment of Potrero Boulevard (when extended south of Highway 60), and to the south by the unpaved alignment of 4th Street, and to the west by undeveloped parcels. The site consists of two contiguous irregularly shaped parcels, which together are ±46 acres in size. The Project site is identified on the El Casco U. S. Geological Survey's (USGS) 7.5-minute topographic map in Section 7, Township 3 South, Range 1 East.

1.3 Environmental Setting

The Project site is situated in the westernmost portion of Riverside County within the San Gorgonio Pass. The local area is subject to both seasonal and annual variations in temperature and precipitation. Average annual maximum temperatures typically peak at 75 degrees Fahrenheit (°F) in July and August and fall to an average annual minimum temperature of 45 °F in December. Average annual precipitation is greatest from January through April. Annual precipitation averages 18 inches. Winds are typically from the southwest with a mean speed of six miles per hour.

The elevations in Project site range from 2380 to 2470 feet above mean sea level.

The general project vicinity consists of vacant land surrounded by residential and commercial development. The site is bounded on the west, south, and east sides by active development sites, and bounded on the north by Route 60.

2 Methods

All work was conducted in accordance with the MSHCP survey guidelines. No limitations significantly affected the results and conclusions given herein. Surveys were conducted during the appropriate season to observe the target species, in good weather conditions, by qualified biologists who followed all pertinent protocols.

As stated above, the objective of this document is to determine whether the Project area supports special status or otherwise sensitive species and/ or their habitat, and to address the potential effects associated with the Proposed project on those resources. The species and habitats addressed in this document are based on database information and field investigation.

Prior to conducting the field study, species and habitat information was gathered from the reports related to the specific project and relevant databases for the *El Casco* USGS quadrangle to determine which species and/or habitats would be expected to occur on site. These sources include:

- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USFWS Information for Planning and Consultation System (IPaC);
- California Natural Diversity Database (CNDDB) *Rarefind 5*);
- CNDDB Biogeographic Information and Observation System (BIOS);
- California Native Plant Society Electronic Inventory (CNPSEI) database;
- Calflora Database;
- USDA Natural Resources Conservation Service (NRCS) Web Soil Survey;
- USFWS National Wetland Inventory;
- Environmental Protection Agency (EPA) Water Program "My Waters" data layers
- USFWS Designated Critical Habitat Maps

We also reviewed other available technical information on the biological resources of the site, including previous trapping surveys and discussed recent findings with researchers in the field.

Jericho biologist Christian Nordal conducted a general biological resources assessment on April 5, 2019, with with a follow-up visit on April 29, 2019. Mr. Nordal has advanced degrees and multiple years of experience surveying biological resources within Southern California. Mr. Nordal conducted the systematic and comprehensive survey during calm weather, between the hours of 7 a.m. and 11 a.m. and 2 p.m. and 5 p.m. Weather conditions during the surveys consisted of clear skies with temperatures ranging from 64 degrees Fahrenheit (° F) to 77° F and light wind <5 mph.

His assessment included a (*Athene cunicularia*) [BUOW] habitat assessment in accordance with the MSHCP burrowing owl survey guidelines. Mr. Nordal walked transects spaced at approximately 30 feet apart which provided 100 percent visual coverage of the areas determined to contain suitable habitat for BUOW. Adjacent areas that were not accessible on foot were surveyed with binoculars. The surveys were conducted on calm weather days, during peak animal activity, particularly BUOW activity. During the site walk over, Mr. Nordal looked for sign including, burrows, molted feathers, cast pellets, prey remains, owl whitewash, and suitable surrogate burrows.

On April 30, 2019, Jericho ecologist Shay Lawrey performed a follow up site assessment to evaluate the potential to support for sensitive birds and small mammals to occur on site, specifically the Burrowing owl (*Athene cunicularia*) [BUOW], California gnatcatcher (*Polioptila californica*) [CAGN], least Bell's vireo (*Vireo bellii pusillus*) [LBVI] and small mammals such as the San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*) [SBKR] and Los Angeles Pocket mouse (*Perognathus longimembris brevinasus*) [LAPM]. Ms. Lawrey has advanced degrees in biology, has two decades of experience with surveying for sensitive small mammals and birds and is permitted to survey.

Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined per known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of surveys was to identify potential habitat for special status wildlife within the project area. Disturbance characteristics and all animal sign encountered on the site are recorded in the results section.

Plant communities were identified and confirmed during field visits using the Western Riverside County Regional Conservation Authority 2012 Vegetation map. The mapped plant communities were digitized using Geographic Information System (GIS) software, and acreages were calculated based on the vegetation types on site. Plant communities were determined in accordance with the categories described in Holland (1986) and

Oberbauer (2008). Plant nomenclature follows that of *The Jepson Manual: Higher Plants of California* (Hickman 1993).

The site was also evaluated for the presence of riverine/riparian and vernal pool areas and jurisdictional waters, i.e. waters of the U.S. as regulated by the USACE and RWQCB, and/or streambed and associated riparian habitat as regulated by the CDFW. Evaluation of potential federal jurisdiction followed the regulations set forth in 33CFR part 328 and the USACE guidance documents and evaluation of potential State jurisdiction followed guidance in the Fish and Game Code and A Review of Stream Processes and Forms in Dryland Watersheds (CDFW, 2010).

Clean Water Act – US Army Corps of Engineers Jurisdiction

The lateral extent of potential USACE jurisdiction was measured at the Ordinary High Watermark (OHWM) in accordance with regulations set forth in 33CFR part 328 and the USACE guidance documents.

To be considered a *jurisdictional wetland* under the federal CWA, Section 404, an area must possess three (3) wetland characteristics: hydrophytic *vegetation*, hydric *soils*, and wetland *hydrology*.

- *Hydrophytic vegetation*: Hydrophytic vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the *2016 National Wetland Plant List (Arid West Region)* (Lichvar, 2016). Each species on the list is rated per a wetland indicator category, as shown in Table 2. To be considered hydrophytic, the species must have *wetland indicator status*, i.e., be rated as OBL, FACW or FAC.

Table 1. Wetland Indicator Vegetation Categories

Category	Probability
Obligate Wetland (OBL)	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland (FACW)	Usually occur in wetlands (estimated probability 67 to 99%)
Facultative (FAC)	Equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 66%)
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67 to 99%)
Obligate Upland (UPL)	Almost always occur in non-wetlands (estimated probability >99%)

- *Hydric Soil*: Soil maps from the USDA-NRCS Web Soil Survey were reviewed for soil types found within the project area. Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. Generally, hydric soils are dark in color or may be gleyed (bluish, greenish, or grayish), resulting from soil development under anoxic (without oxygen) conditions.

- *Wetland Hydrology*: The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE, 1987 and 2008b).

California Department of Fish and Wildlife

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and *A Review of Stream Processes and Forms in Dryland Watersheds* (CDFW, 2010). Specifically, CDFW jurisdiction would occur where a stream has a definite course showing evidence of where waters rise to their highest level and to the extent

of associated riparian vegetation.

3 Results

3.1 Site Conditions

The topography of the Project site is generally steep-sloped terrain, with the northern two rows of hills having flat tops. Topography is lowest at the southeastern portion of the study area and many linear human-made disturbance trails streak throughout the project site typically from east to west, although non-linear disturbance trails do exist throughout the project site as well.

The Project site is currently vacant and has been subject to regular human disturbances, evidenced by signs of tire tracks and ramps left behind for off road vehicle (ORV) use. The southernmost hills of the project site consists of buckwheat-dominant sage scrub on their southern slopes, and their northern slopes are primarily oak woodland. The flat-topped hills in the northern area of the study area are dominated primarily by nonnative grasses and native herbs.

A drainage of Potrero Creek runs along the northern border and is lined with concrete, and a small but conspicuous ravine runs in the northeast portion of the site. The eastern portion of the site transitions from scrub to riparian habitat dominated by willow (*Salix ssp.*), black walnut (*Juglans californica*), California bay (*Umbellularia californica*), and Mexican elderberry (*Sambucus mexicana*). The riparian area of the project site has been impacted by adjacent project construction and a water diversion has taken place. Historic flow originally occurred along the southeast border of the study area, and water has been diverted eastward.

3.2 Vegetation

All plant species observed on the Project site were recorded and are included as Appendix C.

The habitat on the south-facing slopes of the southernmost hills consist of sage scrub (mapped by the RCA as Chamise- coastal sage scrub disturbance mapping unit, Figure 3) dominated by California buckwheat (*Eriogonum fasciculatum*), chamise (*Adenostoma fasciculatum*), exotic annual grasses (*Bromus ssp.*), cholla (*Cylandropuntia ssp.*), and common fiddleneck (*Amsinckia intermedia*). The northern slopes of the southernmost hills (mapped by the RCA as Scrub Oak Alliance) contain oak woodland dominated by Inland scrub oak (*Quercus berberidifolia*); native vegetation at lower canopies includes miner's lettuce (*Claytonia perfoliate*), baby blue eyes (*Nemophila menziesii*), exotic annual grasses (*Bromus ssp.*) and Indian paintbrush (*Castilleja applegatei*).

The northern hills are plateaued with tops dominated by common fiddleneck, *Cryptantha ssp.*, lupine (*Lupinus bicolor*), and exotic annual grasses (*Bromus ssp.*). The habitat on the slopes of the northern hills is composed of the same exotic grasses with patches of sage scrub (these areas are mapped by the RCA as California Annual Grassland Alliance). The sage scrub consists of California buckwheat, chamise, and California sagebrush (*Artemesia californica*).

Vegetation around the concrete channel that borders the north consists of exotic grasses (*Bromus ssp.*) along the western portion of the channel within the study area and degraded oak woodland and sage scrub (mapped by the RCA as California Buckwheat Alliance) along the eastern portion. The western portion of the project site is primarily grassland with patches of oak woodland and riparian in the southwest portion. The riparian habitat within the project boundaries is dominated by willow (*Salix ssp.*), black walnut (*Juglans californica*), California bay (*Umbellularia californica*), and Mexican elderberry (*Sambucus mexicana*). These areas are mapped by the RCA as Mulefat Alliance, California Sycamore- Fremont Cottonewood/Arroyo Willow Association, and Exotic

Trees Mapping Unit; however, the polygons classifying these areas extend into riparian areas beyond the project and RCA vegetation classifications may be based on larger sample sizes than what exists in the project boundaries.

3.3 Wildlife

Several animal species were observed during the site surveys: least Bell's vireo (*Vireo bellii pusillus*), Pacific-slope flycatcher (*Empidonax difficilis*), ash-throated flycatcher (*Myiarchu cinerascens*), common raven (*Corvus corax*), western kingbird (*Tyrannus verticalis*), blue-gray gnatcatcher (*Polioptila caerulea*), American goldfinch (*Spinus tristis*), lesser goldfinch (*Spinus psaltria*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), dark-eyed junco (*Junco hyemalis*), California towhee (*Melozone crissalis*), spotted towhee (*Pipilo maculatus*), northern mockingbird (*Mimus polyglottos*), and Anna's hummingbird (*Calypte anna*).

<u>least Bell's vireo [LBVI]</u>

Of these species observed the one of notable importance is the least Bell's vireo [LBVI]. The LBVI was listed as a state endangered species by the California Fish and Game Commission in 1980, and as a federally endangered species in 1986. Three individuals were heard singing from the riparian vegetation found on site.

LBVI are migratory and begin returning to southern California breeding sites in mid- to late-March. Males arrive in advance of females by several days. Males establish and defend territories through counter-singing, chase and sometimes physical combat with neighboring males. Territory size ranges from 0.5 to 7.5 acres with the average size approximately 2 acers. Site fidelity is high among adults, with many birds not only returning to the same territory but placing nests in the same shrub used the previous year. LBVI place their nests in a variety of plants that provide concealment in the form of dense foliage. The most frequently used species include willows (Salix sp.), mulefat (*Baccharis glutinosa*), California wild rose (*Rosa californica*) and poison oak (*Toxicodendron diversilobum*). Nests are typically placed within three feet of the ground. The nest is placed in the horizontal fork of a tree or shrub branch and bound at the rim. Nests are typically constructed of soft plant strips and shreds, leaf fragments, small pieces of bark, spider webs, and other materials. Nest-building can begin soon after arrival of the pair, typically in late March, although prolonged inclement weather can delay nest-building. They are generally present on the breeding grounds until late September, although they may begin departing by late July.

<u>Los Angeles Pocket Mouse (LAPM)</u>

The LAPM is one of two pocket mice found in this area of San Bernardino County. Both the LAPM and the San Diego pocket mouse occupy similar habitats, but the San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the LAPM is confined to lower elevation grasslands and coast sage scrub habitats, in areas with soils composed of fine sands. The present known distribution of this species extends from Rancho Cucamonga east to Morongo and south to the San Diego County border. LAPM forages in open ground and underneath shrubs. Pocket mice in general dig burrows in loose soil, although this has not been completely documented for this subspecies. The LAPM is listed as a Critical Species of Concern by the CDFW.

The Project site contains blocks of habitat suitable habitat for LAPM with small mammal burrows present and there are several documented occurrences of LAPM in the near vicinity of the Project site. No protocol surveys were conducted as part of this assessment, therefore presence or absence of LAPM was not determined, only their potential to occur. Potential of occurrence for LAPM is moderate. Presence or absence of LAPM cannot be presumed without a focused presence/absence survey.

Burrowing owl (BUOW)

BUOW are known to occur locally within suitable habitat areas. BUOW is a ground-dwelling owl typically found in arid prairies, fields, and open areas where vegetation is sparse and low to the ground. The BUOW depends on the presence of mammal burrows, i.e. ground squirrel burrows to provide shelter from predators, inclement weather and to provide a nesting place. They are also known to make use of human-created structures, such as cement culverts and pipes, for burrows. They feed primarily on insects but will also take small rodents, birds, and reptiles. They are active during the day and night, generally observed in the early morning hours or at twilight. The breeding season for BUOW is February 1 through August 31. The BUOW is not listed under the State or Federal Endangered Species Act but is considered both a State and federal SSC. The BUOW is a protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California Fish and Game Code (CDFG Code #3513 & #3503.5).

Burrowing owl habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey. Therefore, the project site and immediate vicinity does not contain suitable habitat for this species for the following reasons:

- *Vegetation is not sparse or low to the ground*
- *Burrows on site are small mammal burrows that are not of the appropriate size shape or aspect for BUOW.*

No evidence of BUOW was found in the survey area. No burrows of appropriate shape size or aspect for BUOW or BUOW pellets, feathers or whitewash were found on site. No BUOW individuals were observed. The site is not currently suitable to support BUOW. Further survey is not warranted or recommended.

Marvin's onion *(Allium marvinni)*

Marvin's onion is a monocot perennial bulb that is native to southern California with historic distributions as far north as Kern County. It grows on clay openings on the slopes of chaparral habitats and occurs at elevations between 1,133 to 5,414 feet above mean sea level (msl) in non-saline soils. According to the Calflora database, the Project site has soils with a salinity level outside of this species tolerance. In addition the temperature range and July highs at the Project site are outside of this species tolerance. No clay soils are mapped on site, but cay pan areas are known to occur in this area. Therefore soil suitability cannot be discounted.

This species was not observed during survey and was not expected to occur based on the database research and site conditions.

Many stemmed dudleya *(Dudleya multicaulis)*

Many stemmed dudleya is a dicot perennial herb that occurs primarily in Orange County but has distribution throughout southern California in heavy clay soils. It grows in in coastal sage scrub, valley grassland, and chaparral communities at elevations between 50 to 855 feet msl. According to the Calflora database, the Project site is outside of this species in terms of temperature and the site is outside of this species elevational range.

This species was not observed during survey and was not expected to occur based on the database research and site conditions.

3.4 Hydrology and Soils

Hydrologically, the Project site is within the Beaumont Hydrologic Sub-Area (HSA 801.62) which comprises a 29,339-acre drainage area within the larger San Timoteo Wash Watershed (HUC 180702030401).

Soils on site are comprised of multiple different soils types (Figure 4):

- Badland (BaG) – Soil in this series is typically unweathered bedrock (USDA Soil Survey, 2018).
- Greenfield sandy loam (GyD2) – Soils in this series are alluvium derived from granite and well drained. These are classified as farmland of statewide importance.
- Hanford course sandy loam (HcC, HcD2) – Soils in this series are alluvium derived from granite and are wel drained. These soils are prime farmland if irrigated.
- Placentia fine sandy loam (PlB, PlD) – These soils are alluvium derived from granite and are moderately well drained. They are classified as not prime farmland.
- Ramona sandy loam (RaB2, RaC2, RaC3, RaD2, RaE3) – These soils are alluvium derived from granite often forming alluvial fans and terraces. They are well drained and are classified as prime farmland if irrigated.
- Riverwash (RsC) – These soils are sandy and gravelly alluvium derived from mixed sources and are found in channels. They are excessively drained and classified as not prime farmland.
- San Emigdio fine sandy loam (SeD2) – These soils are residuum weathered from sedimentary rock and are well drained. They are classified as not prime farmland.
- San Emigdio loam (SgC) – These soils are residuum weathered from sedimentary rock and are well drained. They are classified as prime farmland if irrigated.
- Terrace escarpments (TeG) – This soil consists of alluvium derived from mixed sources, drainage variable. No irrigated land capability classification (USDA Soil Survey, 2018).

4 Results - MSHCP Consistency Analysis

Based on the MSHCP GIS overlay, the Project is within the Badlands Habitat Management Unit , but is not within an Area Plan or criteria cell or subunit area.

A summary of the MSHCP Conservation Goals and Policies as they relate to this project is provided in Table 2.

Table 2. Conservation Goals

Conservation Goals	Within/Adjacent	Not Within / Adjacent
Proposed Constrained Linkages: **None**		X
Core Areas: **None**		X
Linkages: **None**		X
Constrained Linkage:		X
Habitat Block:		X
Core: **None**		X
Criteria Cell**:**		X
Pre-existing conservation Area		X
Riparian/Riverine or Vernal Pool Habitat		X
Narrow Endemic Plant Survey Area	X	
Urban/Wildlife Interface		X
Mammal Survey Area	X	
Amphibian Survey Area		X
Burrowing Owl Survey Area	X	

4.1 Subunit Area/Cell Criteria

Pursuant to Section 3.3.12, Subunits are areas within an area plan that contain target conservation acreages along with a description of the planning species, biological issues, and considerations.

- *Findings: Per the Western Riverside County MSHCP GIS overlay, the subject property is <u>not</u> located within a subunit area or cell criteria. No further discussion on this subject is required in this analysis.*

4.2 Amphibian, Mammal and Other Criteria Area Species

Pursuant to MSHCP Section 6.3.2, additional surveys may be needed for certain species in conjunction with Plan implementation in order to achieve coverage for these species.

4.2.1 Los Angeles Pocket Mouse (LAPM)

LAPM is one of eight subspecies of the little pocket mouse. Its historic range went from San Fernando and Burbank in the San Fernando Valley east to Cabazon, south through the San Jacinto and Temecula Valleys to Aguanga, Warner Pass, Vail, and Temecula. They live in burrows, where they avoid predators and heat during the day and emerge at night to forage for seeds and forbs. LAPM hibernate during the winter months (typically October to February) and enter torpor if deprived of food. Suitable habitat for LAPM requires sandy to loamy-sand soils occurring in non-native grassland, Riversidean sage scrub, Riversidean alluvial fan sage scrub, desert scrub, playa and vernal pool, or chaparral.

- *<u>Findings:</u> Per the Western Riverside County MSHCP GIS overlay, the subject property is located in an area where additional surveys are required if suitable habitat exists for Los Angeles Pocket Mouse. A habitat assessment was conducted, and the project site does support habitat potentially suitable to LAPM. Focused LAPM surveys were not conducted but are warranted and recommended.*

4.2.2 Burrowing Owl

Pursuant to MSHCP Section 6.3.2, surveys shall be conducted within suitable habitat for BUOW, according to accepted protocols. Per the Western Riverside County MSHCP GIS overlay, the subject property is located in an area where surveys are required for BUOW.

Per the definition provided MSHCP BUOW habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey." Therefore, the project site and immediate vicinity does not contain suitable habitat for this species for the following reasons:

- Vegetation is not sparse or low to the ground
- Burrows on site are small mammal burrows that are not of the appropriate size shape or aspect for BUOW.
- Presence of predators (coyote)
- Surrounding adjacent development

- *<u>Findings:</u> A habitat assessment was conducted, and the project site does not currently contain habitat that is suitable to support BUOW and focused protocol-level BUOW surveys were not conducted. No BUOW individuals or sign were detected during general surveys. BUOW are considered absent from the project site, and there is no habitat to support BUOW. No further surveys are recommended or warranted.*

4.3 Narrow Endemic Plant Species

Pursuant to Section 6.1.3 of the MSHCP, focused surveys for narrow endemic plant species are required for properties within the mapped areas if the appropriate habitat is present. Per the Western Riverside County MSHCP GIS overlay, the subject parcels require narrow endemic plant surveys for Marvin's onion and Many-stemmed dudleya.

4.3.1 Marvin's onion (Allium marvinni)

Marvin's onion grows on clay openings on the slopes of chaparral habitats and at elevations between 1,133 feet mean sea level (msl) to 5,414 msl in non-saline soils.

- *Findings: The Project site occurs at elevations ranging between 2,380 feet msl to - 2,470 feet msl, yet the soils on site have a salinity out side of this species tolerance. This species was not observed during surrvey. No further surveys are recommended or warranted.*

4.3.2 Many stemmed dudleya (Dudleya multicaulis)

Many stemmed dudleya occurs in heavy clay soils at elevations between 50 feet msl to 855 feet msl.

- *Findings: The Project site occurs at elevations ranging between 2,380 feet msl to 2,470 feet msl and outside of this species elevational range. No further surveys are recommended or warranted.*

4.4 Riparian/Riverine Areas and Vernal Pools

4.4.1 Riparian/Riverine Areas

The MSHCP describes the protection of Riparian/Riverine Areas and Vernal Pools within the MSHCP Plan Area as important to the conservation of certain amphibian, avian, fish, invertebrate and plant species. The MSHCP describes guidelines to ensure that the biological functions and values for species inside the MSHCP Conservation Area are maintained, as outlined in Volume 1, Section 6.1.2.

Pursuant to Section 6.1.2 of the MSHCP, Riparian/Riverine areas are lands which contain habitat dominated by trees, shrubs, persistent emergent vegetation, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from nearby fresh water sources, or areas with freshwater flow during all or a portion of the year. Riverine habitat includes all wetlands and deep-water habitats contained in natural or artificial channels periodically or continuously containing flowing water or which forms a connecting link between the two bodies of standing water. Riverine habitat is bounded on the landward side by upland, by the channel bank (including natural and man-made levees), or by wetlands dominated by trees, shrubs, persistent emergents, mosses, or lichens. In braided streams, the system is bounded by the banks forming the outer limits of the depression within which the braiding occurs. Springs discharging into a channel are considered part of the riverine habitat. The term riparian is used to define the type of wildlife habitat found along the banks of a river, stream, lake or other body of water. Riparian habitats are ecologically diverse and can be found in many types of environments including grasslands, wetlands, and forests.

The southwestern-most parcel (424-01-0007) supports riverine/riparian habitat composed primarily of willow (*Salix ssp.*) and black walnut (*Juglans californica*) but is currently disturbed by adjacent construction activity. There are multiple canopy layers, with top canopies consisting primarily of willow and black walnut, middle canopy composed primarily of California bay (*Umbellularia californica*) and Mexican elderberry (*Sambucus mexicana*), and lower canopies composed primarily of stinging nettle (*Urtica dioica*). The riparian habitat is

currently occupied by LBVI, and has a historic record of the federally Endangered southwestern willow flycatcher (*Empidonax traillii extimus*) within the same tributary and less than 100 feet from the project.

- *Findings: The Project site riparian habitat which is occupied by LBVI.*

4.4.2 Vernal Pools

Pursuant to Section 6.1.2 of the MSHCP, Vernal Pools are 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 wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics should consider (1) the length of time the area exhibits upland and wetland characteristics, and (2) the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records.

- *Findings: No Vernal Pools were identified within the project site. No depressions, pools, or signs of hydrology that would indicate an ephemeral wetland were detected in the project vicinity. No further discussion on this subject is required in this analysis*.

4.5 Urban/ Wildlands Interface

Section 6.1.4 of the MSHCP presents guidelines to minimize indirect effects of projects in proximity to the MSHCP Conservation Areas. This section provides mitigation measures for impacts associated with Drainage, Toxics, Lighting, Noise, Invasives, Barriers, and Grading/Land Development.

- *Findings: The project site is not located within Criteria Cell or Conservation area but is adjacent to open space. The Urban/Wildlife Interface Guidelines, as discussed below, will be incorporated into the project to ensure that indirect project-related impacts, including drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development, are avoided or minimized.*

Drainage

Storm water runoff measures will assure that the project stormwater discharges are no greater in volume and velocity than current undeveloped conditions and that the water leaving the site complies with all applicable water quality standards.

Toxics

During the development of the project site, construction activities that have the potential to release toxics that could impact open space or wildlands, Best Management Practices (BMPs) will be put in place to avoid or minimize any such release. To address these potential short-term impacts, the project is required to stage construction operations as far away from the MSHCP Conservation Area to the maximum extent feasible. These mitigation measures will be imposed by the County.

Lighting

Light sources associated with the proposed development should be designed with internal baffles to direct the lighting towards the ground and the developed areas and have a zero-side angle cut off to the horizon.

Noise

The proposed project is outside of any targeted conservation areas. Construction-related noise will be mitigated consistent with the City/County's Noise Ordinances by limiting construction activities to daytime hours and requiring construction equipment to be tuned and equipped with mufflers.

Invasive Plant Species

Plant species acceptable for the project's landscaping must not be considered an invasive species pursuant to Table 6.2 of the MSHCP. To ensure this, the final landscape plans must be reviewed and verified by the County for consistency with the plant species list in Table 6.2 of the MSHCP.

Barriers

Under the MSHCP, suitable barriers include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms. The barriers would and should be placed within the boundaries of the development and will be outside of the confines of the open space.

Grading/Land Development

The project has been designed to keep all manufactured slopes within the boundaries of the development footprint and not encroach into the open space.

Fuels Management

Fuels management focuses on hazard reduction for humans and their property (MSHCP, p. 6-72). According to the Fuels Management Guidelines, for new development that is planned adjacent to undeveloped areas, brush management shall be incorporated in the development boundaries and shall not encroach into the MSHCP Conservation Area (MSHCP, p. 6-72).

The proposed project would decrease the fuel load within the project boundary with the implementation of buildings, roads, and landscaping. Any areas planted with fire-resistant, non-invasive plants must not encroach into the Conservation Area. Accordingly, with these measures, the project is consistent with the MSHCP Fuels Management Guidelines.

5 Jurisdictional Delineation

The Project site is within the Beaumont Hydrologic Sub-Area (HSA 801.62) which comprises a 29,339-acre drainage area within the larger San Timoteo Wash Watershed (HUC 180702030401). The San Timoteo Wash Watershed is bound on the north by the Upper Santa Ana River Watershed, on the west by the Middle Santa Ana River and Lower San Jacinto River Watersheds, on the south by the Middle San Jacinto River Watershed, and on the east by the Little Gorgonio Creek Watershed.

5.1 Waters of the U.S.

The USACE has authority to permit the discharge of dredged or fill material in WoUS under Section 404 CWA. WoUS are defined as: "All waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters" (Section 404 of the CWA; 33 CFR 328.3 (a). CWA jurisdiction exists over the following:

1. all traditional navigable waters (TNWs);

2. all wetlands adjacent to TNWs;
3. non-navigable tributaries of TNWs that are relatively permanent waters (RPWs) i.e., tributaries that typically flow year-round or have continuous flow at least seasonally; and
4. every water body determined to have a significant nexus with TNWs.

The onsite drainage feature is a tributary of Potrero Creek which is a RPW.

5.2 USACE Wetlands

Areas meeting all three wetland parameters would be designated as USACE wetlands, if they are adjacent to jurisdictional WoUS, or otherwise determined to have a significant nexus to a TNW. All three required parameters, *hydrophitic vegetation, hydric soils* and *wetland hydrology,* are present within the tributary of Potrero Creek. The tributary typically has year-round flow and hydric soils and sedimentation.

Hydrophytic vegetation is prominent within most of the riparian habitat, which is currently dominated by willow (*Salix ssp.*), black walnut (*Juglans californica*), California bay (*Umbellularia californica*), and *Mexican* elderberry (*Sambucus mexicana*).

As previously described, this drainage feature is a tributary of Potrero Creek. Potrero Creek is a 6.5 mile long tributary of the larger San Gorgonio River and its tributaries, including the feature within the Project boundaries. Therefore, the Project will likely result in permanent and temporary impacts to Waters of the U.S. and USACE Wetlands (Figure 5).

5.3 State Lake/Streambed

This tributary is a wetland feature subject to regulation by the CDFW under Section 1602 of the FGC. This feature has a definable bed and bank, as well as associated riparian vegetation including freshwater emergent habitat, California bay thicket habitat and willow thicket habitat. Therefore, the Project will likely result in permanent and temporary impacts to CDFW jurisdictional lakebed.

6 Conclusions and Recommendations

6.1 MSHCP Consistency

The project is consistent with the MSHCP policies found Section 6 which include Riparian/Riverine Areas/ Vernal Pools; Narrow Endemic Plant Species; Urban/Wildlands Interface; and Surveys for Special Status Species (burrowing owls):

1) The site is **not** mapped within any MSHCP Criteria Cell or subunit.

2) The site **is** located in an area where additional surveys are required for Los Angeles pocket mouse.

3) Riparian/Riverine areas exist on site and those areas are currently occupied by leaset Bell's vireo and have historic records of southwestern willow flycatcher.

   Due to the presence of Riverine/Riparian resources on the project site any unavoidable impacts will require a Determination of Biologically Equivalent or Superior Preservation (DBESP) document to be prepared. The DBESP will need to address the lost functions and values of riverine/riparian areas and how the losses will be replaced in an equal to or greater than fashion. The DBESP is reviewed and approved by the Regional Conservation Authority, Western Riverside County and is separate from any

regulatory review/permitting by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and CDFW.

4) The site is located within a BUOW survey area, as required by the MSHCP. However, the initial BUOW habitat assessment was conducted and the result was that no suitable habitat exist on site for BUOW and no BUOW or sign was observed during survey.

5) The site is located within a Narrow Endemic Plant Species survey area for Marvin's onion and multi-stemmed dudleya. The site is outside of the elevational range of multi-stemmed dudleya. Therefore, no additional survey or analysis is warranted. As for Marvin's onion, the soils on site are not mapped as clay but are stated to have a salinity content outside the tolerance of Marvin's onion. Therefore, no additional survey or analysis is warranted.

6.2 Jurisdictional Waters

The tributary of Potrero Creek is a jurisdictional stream/wetland feature that is subject to the CWA and FGC under the jurisdictions of USACE, RWQCB, and CDFW, respectively. Any proposed permanent or temporary impacts to this tributary will require a Streambed Alteration Agreement from the CDFW, as well as CWA Sections 401/404 permits from the RWQCB and Corps, respectively.

6.2.1 USACE Jurisdictional Permit

The two most common types of permits issued by USACE under Section 404 of the CWA to authorize the discharge of dredged or fill material into WoUS are: a nation-wide permit (NWP) or an individual permit (IP). NWPs are general permits for specific categories of activities that result in minimal impacts to aquatic resources. The discharge must not cause the loss of greater than ½ acre to WoUS, including the loss of no more than 300 linear feet of streambed.

This tributary of Potrero Creek contains approximately 5.3 acres of USACE jurisdictional WoUS.

6.2.2 Regional Water Quality Control Board Jurisdictional Permit

The Project area is within the jurisdiction of the Santa Ana (Region 8) RWQCB. Under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into WUS does not violate state water quality standards. The RWQCB also regulates impacts to WSC under the Porter Cologne Water Quality Control Act through issuance of a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending upon the level of impact and the waterway. In addition to the formal application materials and fee (based on area of impact), a copy of the appropriate California Environmental Quality Act (CEQA) documentation must be included with the application.

6.2.3 Streambed Alteration Agreement

The approximately 5.3-acre (total) sections of the tributary is entirely subject to regulation by the CDFW under Section 1602 of the FGC. Therefore, any Project-related impacts would require a FGC Section 1602 Streambed Alteration Agreement, which is required for all activities that alter streams and lakes and their associated riparian habitat. In addition to the formal application materials and fee (based on cost of the Project), a copy of the appropriate CEQA documentation must be included with the application.

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7 References

County of Riverside, Environmental Programs Department. Revised August 17, 2006. Burrowing Owl Survey Instructions for Western Riverside Multiple Species Habitat Conservation Plan Area, March 29, 2006.

County of Riverside, Land Information System. APNs 331-150-018 and 331-150-027 searches for site-specific information and maps.

Dudek & Associates, Inc. June 17, 2003. Riverside County Integrated Project. Final Western Riverside County Multiple Species Habitat Conservation Plan. Volume I, The Plan, and II.

Dudek & Associates, Inc. June 17, 2003. Riverside County Integrated Project. Final Western Riverside County Multiple Species Habitat Conservation Plan. Volumes II-A through E, The Reference Document.

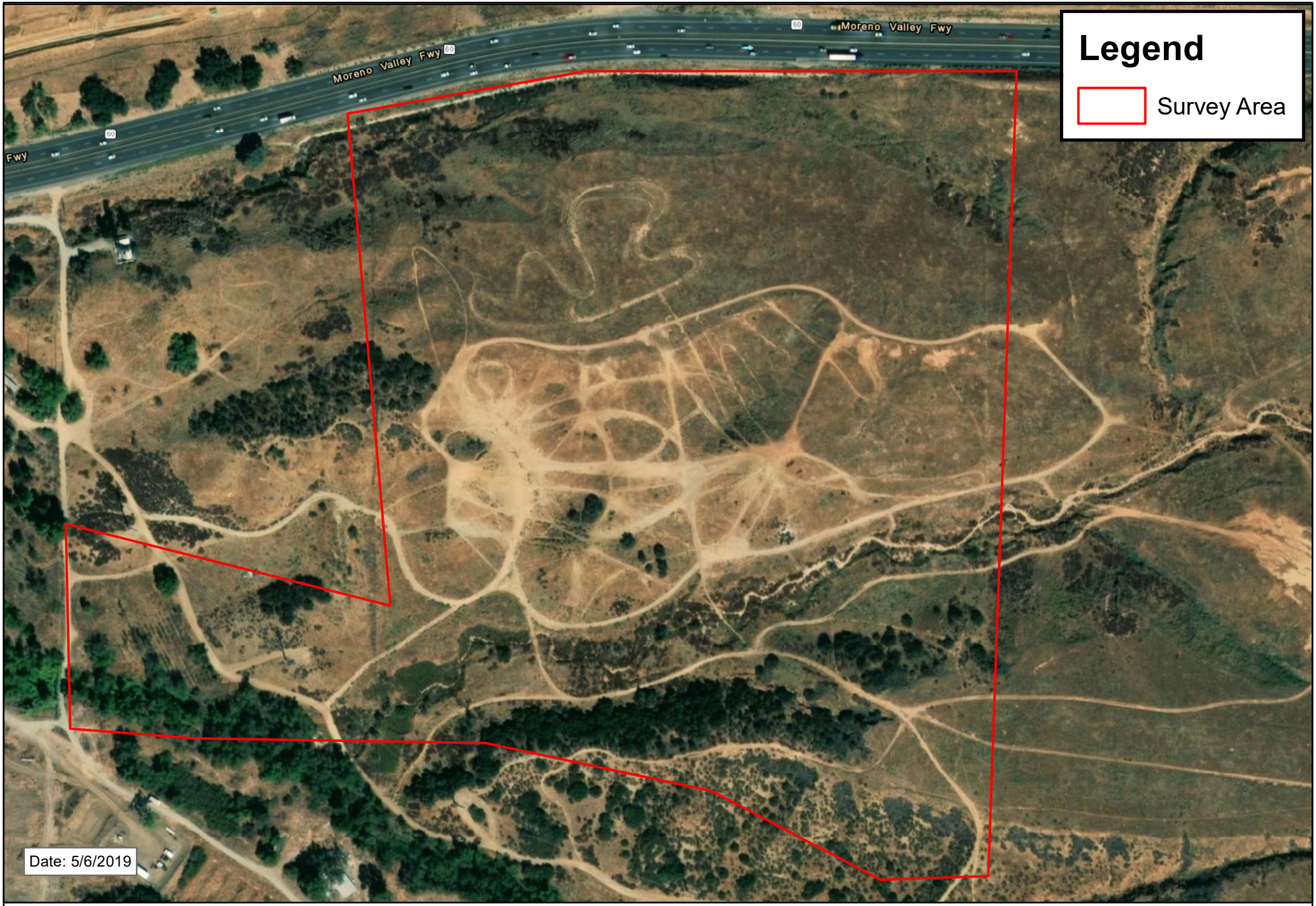
Sawyer, John O., and Todd Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society, Sacramento, California. 471pp.
USDA Web Soil Survey, 2018, https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

ATTACHMENT A – FIGURES

JERICHO SYSTEMS INCORPORATED

Figure 1 - Regional Overview
Site Vicinity

Beaumont – Potrero Interchange
Industrial Warehouse
Beaumont, CA



Imagery Date: 8/6/2017

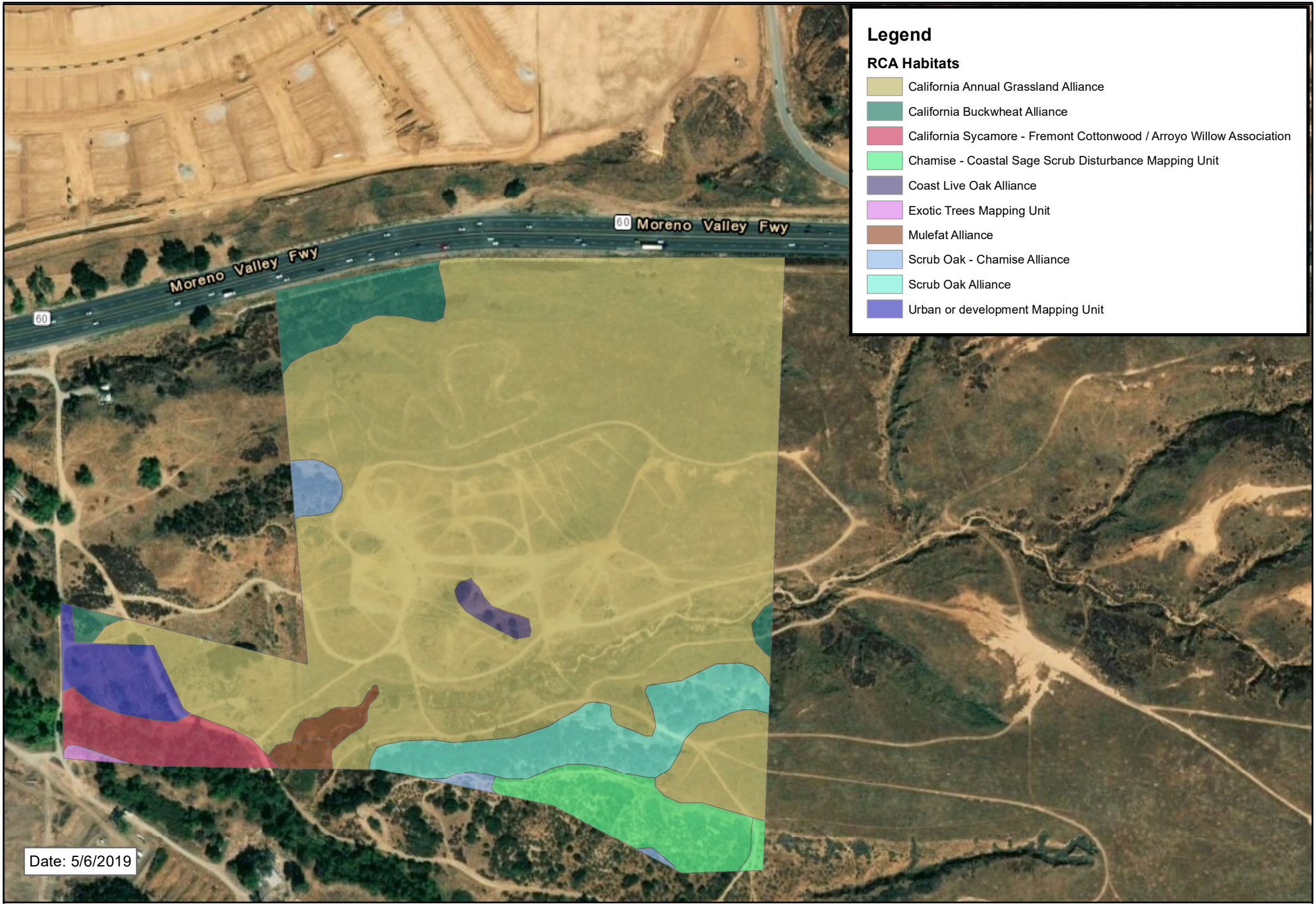
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

JERICHO SYSTEMS INCORPORATED

1 inch = 254 feet

Figure 2
Site Location

Beaumont - Potrero Interchange
Industrial Warehouse
Beaumont, CA



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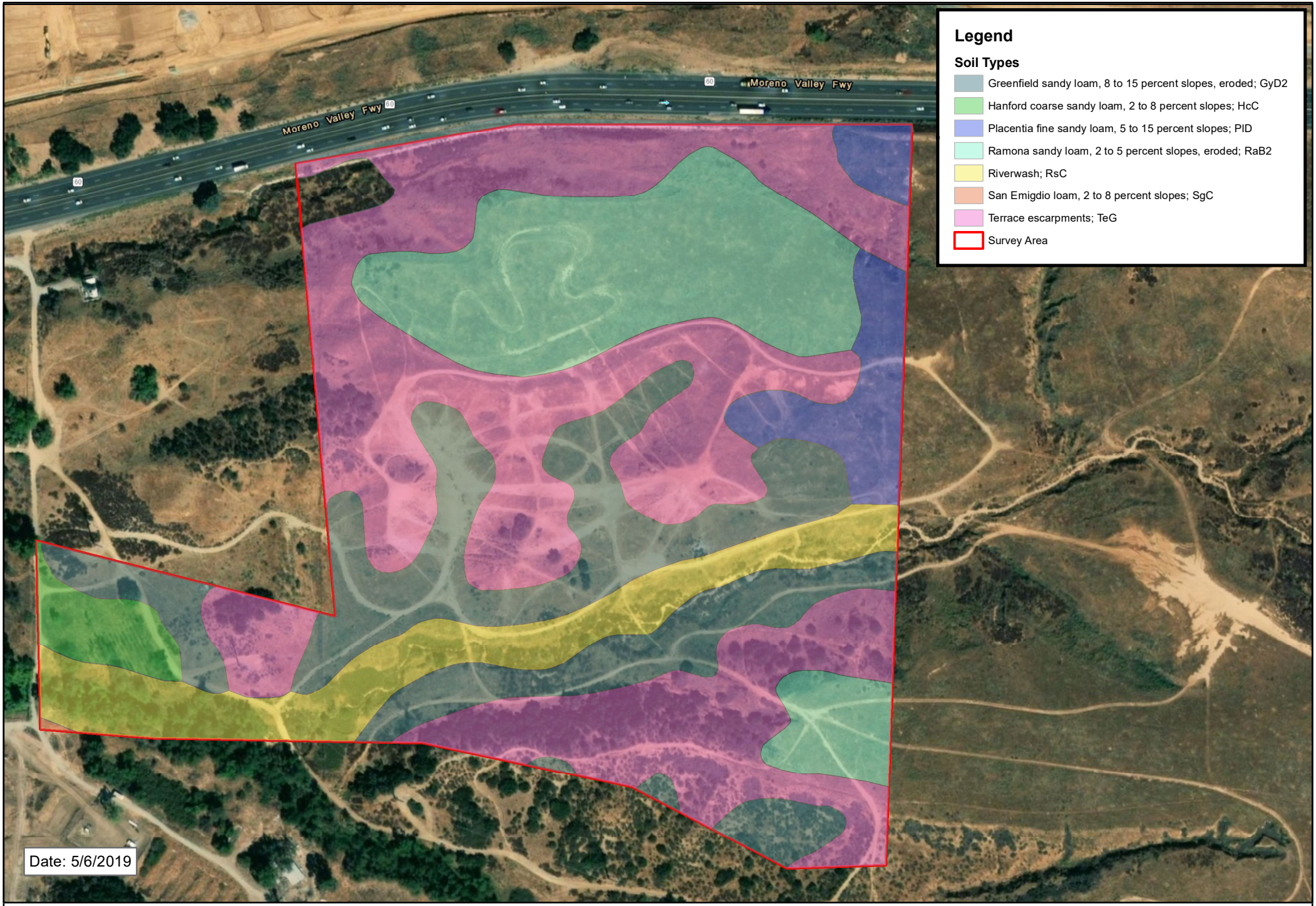
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

JERICHO SYSTEMS INCORPORATED

1 inch = 333 feet

Figure 3
RCA Vegetation Communities

Beaumont - Potrero Interchange
Industrial Warehouse
Beaumont, CA



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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

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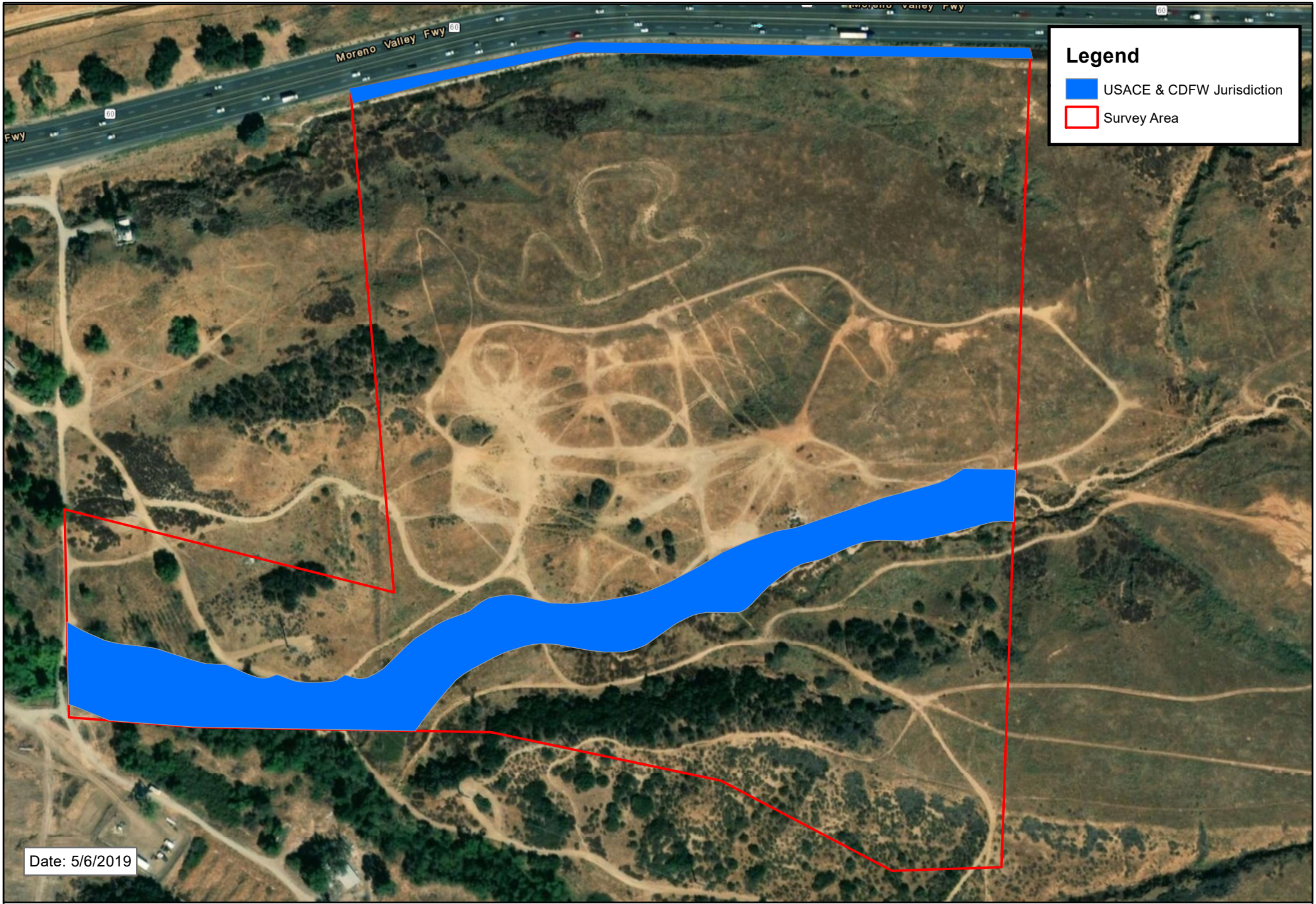
1 inch = 275 feet

Figure 4
Soil Survey Classifications

Beaumont - Potrero Interchange
Industrial Warehouse
Beaumont, CA



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Imagery Date: 8/6/2017

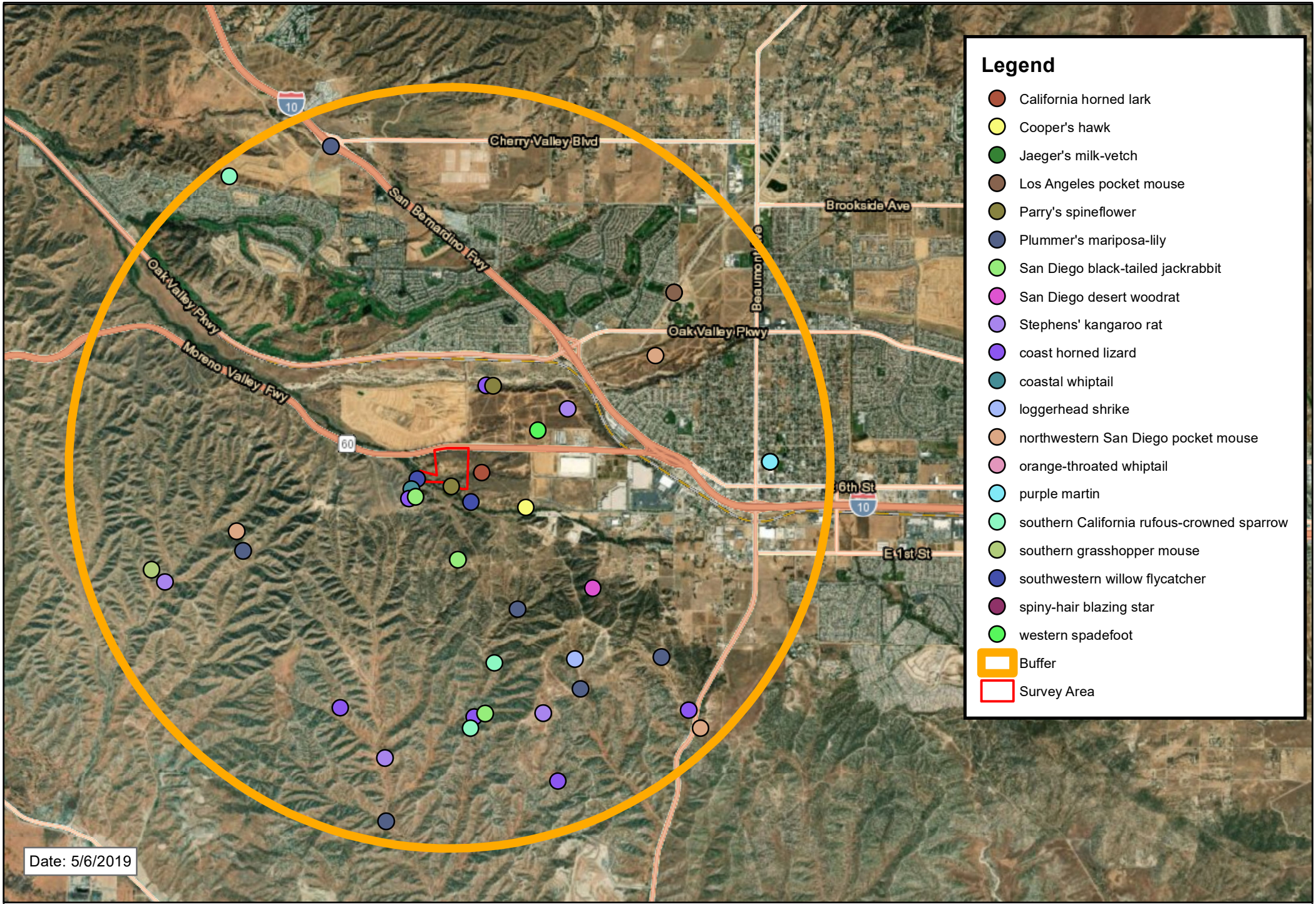
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

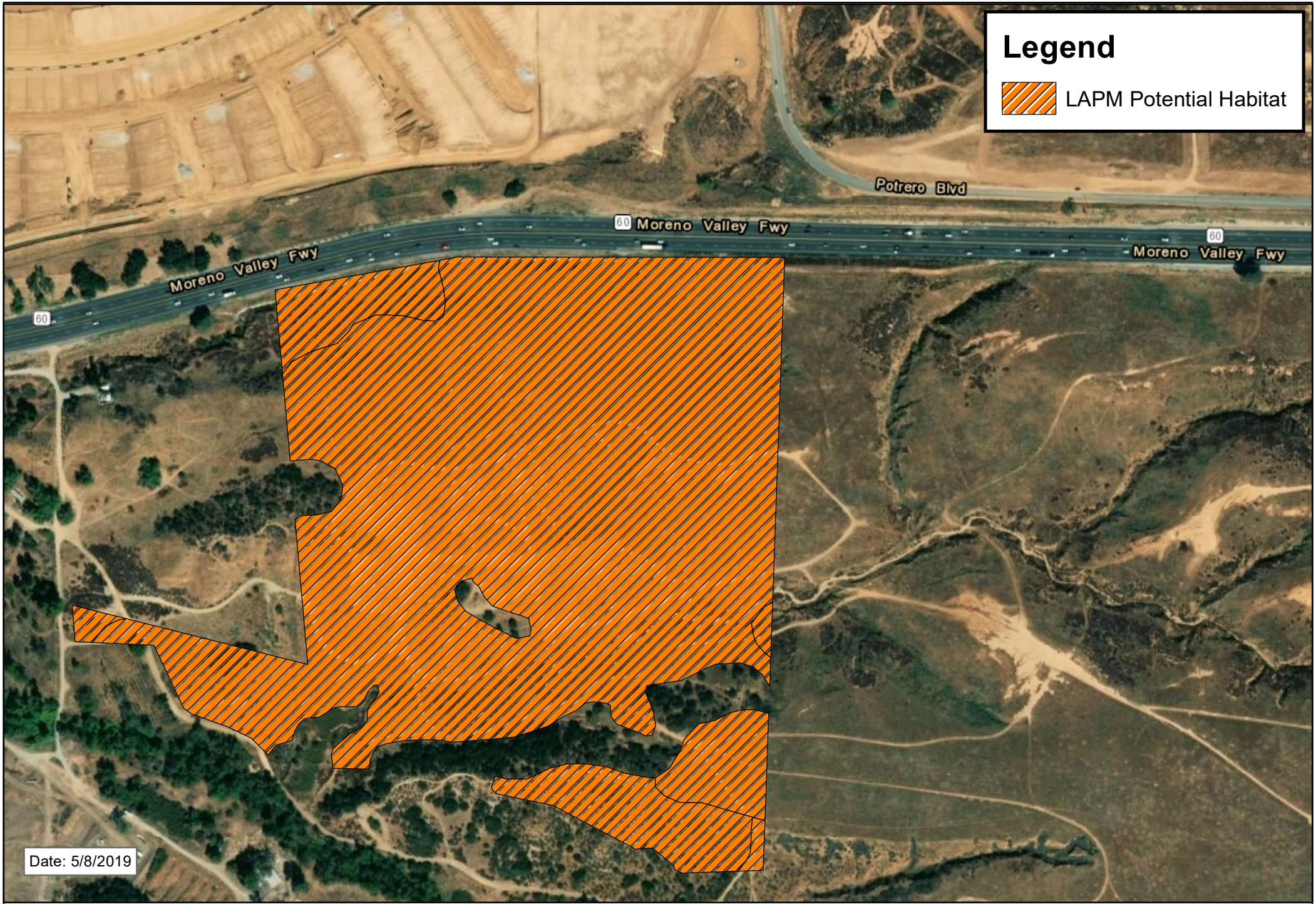
JERICHO SYSTEMS INCORPORATED

1 inch = 250 feet

Figure 5
Jurisdictional Delineation

Beaumont - Potrero Interchange
Industrial Warehouse
Beaumont, CA


Legend
California horned lark
Cooper's hawk
Jaeger's milk-vetch
Los Angeles pocket mouse
Parry's spineflower
Plummer's mariposa-lily
San Diego black-tailed jackrabbit
San Diego desert woodrat
Stephens' kangaroo rat
coast horned lizard
coastal whiptail
loggerhead shrike
northwestern San Diego pocket mouse
orange-throated whiptail
purple martin
southern California rufous-crowned sparrow
southern grasshopper mouse
southwestern willow flycatcher
spiny-hair blazing star
western spadefoot
Buffer
Survey Area
Cherry Valley Blvd
San Bernardino Fwy
Oak Valley Pkwy
Moreno Valley Fwy
Brookside Ave
Beaumont
6th St
E 1st St
10
60
Date: 5/6/2019
0 0.475 0.95 1.9 2.85 3.8
Miles
Imagery Date: 8/6/2017
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
JERICHO SYSTEMS INCORPORATED
1 inch = 5,000 feet
Figure 6
3 Mile CNDDB Occurences
Beaumont - Potrero Interchange
Industrial Warehouse
Beaumont, CA



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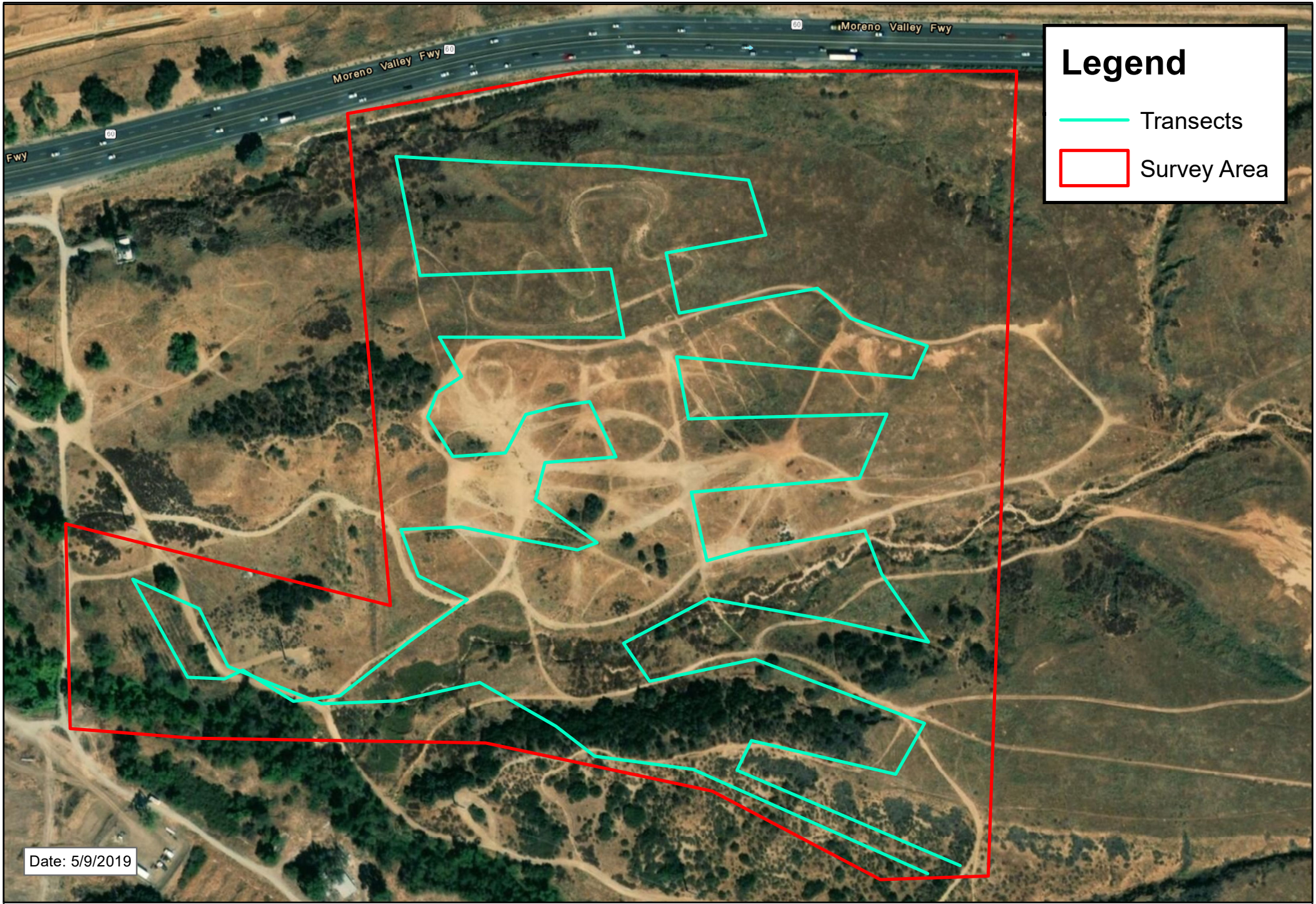
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

JERICHO SYSTEMS INCORPORATED

1 inch = 333 feet

Figure 7
LAPM Potentially Suitable Habitat

Beaumont - Potrero Interchange
Industrial Warehouse
Beaumont, CA



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Imagery Date: 8/6/2017

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

JERICHO SYSTEMS INCORPORATED

1 inch = 254 feet

Figure 8
BUOW Transects

Beaumont - Potrero Interchange
Industrial Warehouse
Beaumont, CA

ATTACHMENT B - PHOTOS

	Photo 1 – Scrub habitat dominant on the southern slopes of the southernmost hills.
	Photo 2 – Grassland on the peak of the southern hills looking north.

	Photo 3 – (Looking south); Photo of northern slopes of the southern-most hills, showing patchy oak-woodland habitat.
	Photo 4 – Evidence of ORV use throughout the project site.

	Photo 5 – Looking east within the valley just north of the southern-most hills. Observed are the construction site bordering the east, evidence of surface flow, the grasslands in the north, and the oak woodland in the south.
	Photo 6 – Evidence of linear areas of disturbance found throughout the project site.

	Photo 7 – Looking south at the oak woodland habitat (on the north slopes of the southern hills) standing on the northern hills.
	Photo 8 – Development bordering the eastern border of the study area.

	Photo 9 – Facing east, concrete channel that feeds into Potrero Creek, bordering the north of the study area.
	Photo 10 – Facing east, the western portion of the concrete channel that feeds into Potrero Creek, showing the oak scrub along the channel.

	Photo 11 – Looking south, a small ravine located on the northwest portion of the study area.
	Photo 12 – Facing west, showing oak woodland patch and development that borders the west.

	Photo 13 – Facing west, showing riparian habitat within the southwest portion of the study area.
	Photo 14 – Existing riparian habitat on site.

	Photo 15 – Historic flow; orange netting can be seen where water diversion takes place outside of the project boundary.
	Photo 16 – Water diversion of riparian habitat: facing northern riparian section.

	Photo 17 – Water diversion of riparian habitat: facing southern riparian section.

ATTACHMENT C – ADDITIONAL TABLES

TABLE A: DATABASE QUERIES FOR THE BEAUMONT AND EL CASCO 7.5-MINUTE USGS QUADRANGLES

Scientific Name	Common Name	Federal/State Ranking	Other Rankings	Habitat	Potential to Occur
Plants					
Ambrosia pumila	San Diego Ambrosia	Endangered/none	G1, S1, 1B.1	Floodplains and grasslands near wetlands	Grasslands in proximity to wetlands are present on site. Species has potential to occur
Abronia villosa var. aurita	chaparral sand-verbena	none/none	G5T2?, S2, 1B.1	Chaparral, Coastal scrub, Desert dunes, sandy soils	Chaparral/alluvial sage scrub and sandy soils are present on site. Species has potential to occur
Allium marvinii	Yucaipa onion	none/none	G1, S1, 1B.2	Chaparral (clay, openings)	Chaparral and clay openings are present on site. Species has potential to occur
Astraglus lentigonus var. borreganus	Borrego milk-vetch	none/none	G5T5?, S4, 4.3	Mojavean desert scrub, Sonoran desert scrub	Desert scrub is not present on site. Potential to occur is low.
Astragalus lentiginosus var. coachellae	Coachella Valley milk-vetch	Endangered/none	G5T1, S1, 1B.2	Desert dunes, Sonoran desert scrub (sandy)	Desert scrub is not present on site. Potential to occur is low.
Astragalus pachypus var. jaegeri	Jaeger's milk-vetch	none/none	G4T1, S1, 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Chaparral, woodland, alluvial scrub, and grasslands are on site. Species has potential to occur
Atriplex coronata var. notatior	San Jacinto Valley crownscale	Endangered/none	G4T1, S1, 1B.1	Playas, Valley and foothill grassland (mesic), Vernal pools	Valley and foothill (mesic) grasslands are on site. Species has potential to occur
Atriplex serenana var. davidsonii	Davidson's saltscale	none/none	G5T1, S1, 1B.2	Coastal bluff scrub, Coastal scrub	Alluvial scrub is on site
Brodiaea filifolia	thread-leaved brodiaea	Threatened/Endangered	1B.1	Vernal pools	Vernal pools are not on site. Species is not likely to occur
Calochortus palmeri var. palmeri	Palmer's mariposa lily	none/none	G3T2, S2, 1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps	Chaparral is on site. Species has potential to occur

Calochortus plummerae	Plummer's mariposa lily	none/none	G4, S4, 4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland in granite/rocky soils	Chaparral, woodland, alluvial scrub, and grasslands are on site. Species has potential to occur
Caulanthus simulans	Payson's jewlflower	none/none	G4, S4, 4.2	Chaparral, Coastal scrub in sandy/granite soils	Chaparral and alluvial scrub with sandy/rocky soils are on site. Species has potential to occur
Centromadia pungens ssp. Laevis	smooth tarplant	none/none	G3G4T2, S2, 1B.1	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland	Riparian woodland and valley/foothill grassland is on site. Species has potential to occur
Chorizanthe parryi var. parryi	Parry's spineflower	none/none	G3T2, S2, 1B.1	Chaparral, cismontane woodland, coastal scrub, valley foothill grassland	Chaparral, woodland, alluvial scrub, and grasslands are on site. Species has potential to occur
Deinandra mohavensis	Mojave tarplant	none/Endangered	G2, S2, 1B.3	Chaparral, Coastal scrub, Riparian scrub	Chaparral, alluvial scrub, and riparian scrub are on site. Species has potential to occur
Delphinium parishii ssp. subglobosum	Colorado Desert larkspur	none/none	G4T4, S4, 4.3	Chaparral, Cismontane woodland, Pinyon and juniper woodland, Sonoran desert scrub	Chaparral and woodland are on site. Species has potential to occur
Delphinium parryi ssp. Purpureum	Mr. Pinos larkspur	none/none	G4T4, S4, 4.3	Chaparral, Mojavean desert scrub, Pinyon and juniper woodland	Chaparral is on site. Species has potential to occur
Eriastrum densifolium ssp. Sanctorum	Santa Ana River Woolly-star	Endangered/Endangered	1B.1	High floodplains	Riparian habitat is on site. Species has potential to occur

Hordeum intercedens	veral barkley	none/none	G3G4, S3S4, 3.2	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools	Saline conditions are not present on site. Potential to occur is low
Horkelia cuneata var. puberula	mesa horkelia	none/none	G4T1, S1, 1B.1	Sandy or gravelly soils in chaparral, coastal scrub, or cismontane woodland	Sandy and gravelly soils are on site within chaparral, alluvial scrub, or woodland. Species has potential to occur
Juglans californica	Southern California black walnut	none/none	G4, S4, 4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland	Species is present on site.
Laesthenia glabrata ssp. Coulteri	Coulter's goldfields	none/none	G4T2, S2, 1B.1	Marshes and swamps (coastal salt), Playas, Vernal pools	Saline conditions are not present on site. Potential to occur is low
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	none/none	G5T3, S3, 4.3	Chaparral, Coastal scrub	Chaparral and alluvial scrub are on site. Species has potential to occur
Lilium parryi	lemon lily	none/none	G3, S3, 1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest	Riparian woodland is on site. Species has potential to occur
Mentzelia tricupis	spiny-hair blazing star	none/none	G4, S2, 2B.1	Mojavean desert scrub	Desert scrub is not present on site. Potential to occur is low.
Nama stenocarpa	mud nama	none/none	G4G5, S1S2, 2B.2	Marshes and swamps (lake margins, riverbanks)	Riparian habitat is on site. Species has potential to occur
Navarretia fossalis	spreading navarretia	Threatened/none	1B.1	Vernal pools	Vernal pools are not on site. Species is not likely to occur
Petalonyx linearis	narrow-leaf sandpaper-plant	none/none	G4, S3?, 2B.3	Creosote Bush Scrub, desert scrub	Desert scrub is not present on site. Potential to occur is low.

Symphyotrichum defoliatum	San Bernardino aster	none/none	G2, S2, 1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Meadows and seeps, Marshes and swamps, Valley and foothill grassland (vernally mesic)	Valley and foothill (mesic) grasslands are on site. Species has potential to occur
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	none/none	G4T3, S1, 2B.1	Meadows and seeps, Marshes and swamps, Riparian forest, Vernal pools	Riparian forest is on site. Species has potential to occur
Mammals					
Chaetodipus californicus femoralis	Dulzura pocket mouse	none/none	G5T3, S3, SSC	Variety of habitats such as coastal scrub, chaparral, alluvial scrub; particularly where chaparral and grassland are close.	Grassland mixed with chaparral is on the project site. Species has potential to occur
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	none/none	G5T3T5, S3S4, SSC	chaparral, grasslands, scrub forests and deserts; rarely found in cities. Requires low growing vegetation or rocky outcroppings and sandy soil for burrows.	Sandy soils and small mammal burrows are on site within scrub forest, grassland, and chaparral. Species has potential to occur
Dipodomys merriami parvus	San Bernardino kangaroo rat	Endangered/none	G5T1, S1, SSC	Alluvial fan chaparral and sage scrub with sandy loam substrates.	Alluvial scrub with sandly loam substrates and small mammal burrows are on site. Species has potential to occur
Dipodomys stephensi	Stephen's kangaroo rat	Endangered/Threatened	G2, S2	Arid/semi-arid open habitats with well-drained substrates and sandy soils for burrows	Open habitat with well-drained soils are on site. Species has potential to occur
Lasiurus xanthinus	western yellow bat	none/none	G5, S3, SSC	Desert habitats with palms	Palm trees were not detected on the project site. Potential to occur is low

Lepus californicus bennettii	San Diego black-tailed jackrabbit	none/none	G5T3T4, S3S4, SSC	Wide variety of habitats with mixed grasses, forbes, and scrub.	Habitat on site has mixed grasses and scrub. Species has potential to occur
Neotoma lepida intermedia	San Diego desert woodrat	none/none	G5T3T4, S3S4, SSC	Juniper-sagebrush, creosote bush scrub, Joshua tree woodlands, scrub oak woodlands, and pinon-juniper woodlands with moderate to dense canopy	Scrub oak woodland is in the project site. Species has potential to occur
Onychomus torrid ramona	southern grasshopper mouse	none/none	G5T3, S3, SSC	Shortgrass prairies with small mammal burrows, desert scrub at lower elevations	Grassland with small mammal burrows exists on site. Species has potential to occur
Perognathus longimembris brevinasus	Los Angeles pocket mouse	none/none	G5T1T2, S1S2, SSC	Coastal/alluvial fan sage scrub, chaparral.	Alluvial scrub and chaparral are on site. Species has potential to occur
Taxidea taxus	American badger	none/none	G5, S3, SSC	Dry, open grasslands, fields and pastures of a variety of altitudes	Grassland exists on site. Species has potential to occur
Birds					
Accipiter cooperii	Cooper's hawk	none/none	G5, S4, WL	Mixed deciduous forests and open woodlands, riparian woodlands, open and pinyon woodlands and forested mountainous regions	Riparian woodland is on site. Species has potential to occur
Agelaius tricolor	tricolored blackbird	none/Candidate Endangered	G2G3, S1S2, SSC	Annual grasslands, wet and dry vernal pools, and seasonal wetlands	Riparian woodland on site, ephemeral drainages on site. Species has potential to occur
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	none/none	G5T3, S3, WL	Oak woodlands and dry uplands with grassy vegetation and shrubs	Oak woodland with grassy vegetation and shrubs on site. Species has potential to occur

Aquila chrysaefos	golden eagle	none/none	G5, S3, FB	Mountainous areas, canyons, shrub lands, grasslands	Site occurs in mountainous area and has shrub lands and grasslands. Species has potential to occur
Athene cunicularia	burrowing owl	none/none	G4, S3, SSC	Open areas with little vegetation and existing burrows/friable soils	Areas of disturbance with little vegetation occur on site. Burrows occur throughout the site. Species has potential to occur
Elanus leucurus	white-tailed kite	none/none	G5, S3S4, FP	Open savannah, grassy plains, semi-arid grasslands	Grassland exists on site. Species has potential to occur
Empidonax traillii extimus	Southwestern Willow Flycatcher	Endangered/Endangered	G5T2, S1	Riparian with understory vegetation and slow flow speed	Multi-canopy vegetation along slow flow waters are on site. Species has potential to occur
Eremophila alpestris actia	California horned lark	none/none	G5T4Q, S4, WL	Plains, sparse scrubland	Grassland exists on site. Species has potential to occur
Icteria virens	yellow-breasted chat	none/none	G5, S3, SSC	Dense shrub within a variety of habitats	Dense vegetation is on site. Species has potential to occur
Lanius ludovicianus	loggerhead shrike	none/none	G4, S4, SSC	Grasslands, orchards, open areas with low density of trees	Grassland exists on site. Species has potential to occur
Plegadis chihi	white-faced ibis	none/none	G5, S3S4, WL	Marshes	Riparian habitat is on site; tall emergent vegetation was not observed in the riparian area. Potential to occur is low.
Polioptila californica californica	coastal California gnatcatcher	Threatened/none		coastal sage scrub, alluvial fan sage scrub, chaparral	Alluvial scrub and chaparral are on site. Species has potential to occur
Progne subis	purple martin	none/none	G5, S3, SSC	Forest edges, forage over water	This species does not occur in San Bernardino county. Historic occurance was likely vagrant or misidentification

Setophaga petechia	yellow warbler	none/none	G5, S3S4, SSC	Willow riparian, marsh/swamp edges, orchards, suburban yards	Willow riparian habitat is on site. Species has potential to occur
Vireo bellii pusillus	least Bell's vireo	Endangered/Endangered	G5T2, S2	Riparian, riparian scrub	Species is present on site.
Reptiles					
Anniella stebbinsi	southern California legless lizard	none/none	G3, S3, SSC	Variety of habitats such as sandy washes, alluvial fans, and sand dunes where there is warm, moise loose soil with plant cover	Moist, sandy soils occur within the project site. Species has potential to occur
Aspidoscelis hyperythra	orange-throated whiptail	none/none	G5, S2S3, WL	Semi-arid brush with loose soil and rocks; riparian areas, rocky hillsides, chaparral	Chaparral and riparian habitat exists within the project site. Species has potential to occur
Aspidoscelis tigris stejnegeri	coastal whiptail	none/none	G5T5, S3, SSC	Variety of dry, hot habitats with sparse vegetation	Disturbance on the project site has created areas with sparse vegetation. Species has potential to occur
Phrynosoma blainvillii	coast horned lizard	none/none	G3G4, S3S4, SSC	Open areas of sandy soil and low vegetation in valleys, foothills, and semiarid mountains	Open areas with sandy soil and low vegetation exist within the southeastern portion of the site. Species has potential to occur
Amphibians					
Spea hammondii	western spadefoot	none/none	G3, S3, SSC	Wet areas in a variety of different habitats	Riparian habitat exists on site. Species has potential to occur
Insects					
Bombus crotchii	Crotch bumble bee	none/none	G3G4, S1S2	Open mediterranean/temperate shrubland and grasslands with abandoned rodent nests.	Open grassland/shrubland with rodent nests are present on site. Species has potential to occur
Crustaceans					

Branchinecta lynchi	vernal pool fairy shrimp	Threatened/none		Vernal pools	Vernal pools are not on site. Species is not likely to occur
Streptocephalus woottoni	Riverside fairy shrimp	Endangered/none		Vernal pools	Vernal pools are not on site. Species is not likely to occur
Habitats					
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	none/none	G4, S4		Habitat is not on site (oak species is Scrub Oak)
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	none/none	G3, S3.2		Habitat is on/adjacent to site

TABLE B: LIST OF OBSERVED SPECIES DURING FIELD SURVEYS

Scientific Name	Common Name
Plants	
Adenostoma fasciculatum	chamise
Amsinckia intermedia	common fiddleneck
Artemesia californica	California sagebrush
Bromus diandrus	ripgut
Castilleja applegatei	Indian paintbrush
Claytonia perfoliate	miner's lettuce
Cryotantha ssp.	popcorn flower
Eriogonum fasciculatum	California buckwheat
Juglans californica	black walnut
Lupinus bicolor	lupine
Nemophila menziesii	baby blue eyes
Quercus berberidofolia	Inland scrub oak
Salix ssp	willow
Sambucus mexicana	Mexican elderberry
Umbellularia californica	California bay
Birds	
Calypte anna	Anna's hummingbird
Corvus corax	common raven
Empidonax difficilis	Pacific-slope flycatcher
Haemorhous mexicanus	house finch
Junco hyemalis	dark-eyed junco
Melozone crissalis	California towhee
Mimus polyglottos	northern mockingbird
Myiarchu cinerascens	ash-throated flycatcher
Pipilo maculatus	spotted towhee
Polioptila caerulea	blue-gray gnatcatcher
sayornis nigricans	black phoebe
Spinus psaltria	lesser goldfinch
Spinus tristis	American goldfinch

Tyrannus verticalis	western kingbird
Vireo bellii pusillus	least Bell's vireo

DETERMINATION OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION (DBESP) ANALYSIS

FOR IMPACTS TO MSHCP RIPARIAN/RIVERINE AREAS

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT LOCATED IN THE CITY OF BEAUMONT, RIVERSIDE COUNTY, CALIFORNIA

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December 2021

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1 EXECUTIVE SUMMARY

This document provides an analysis in support of a Determination of Biologically Equivalent or Superior Preservation (DBESP) for the Potrero Logistics Center Warehouse Project (the Project) located in the City of Beaumont, Riverside County, California, in regard to the Multiple Species Habitat Conservation Plan (MSHCP) requirements for *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (MSHCP Volume I, Section 6.1.2)*.

This document has been prepared following the MSHCP DBESP Report Template created by the Regional Conservation Authority (RCA), to demonstrate that with the appropriate mitigation, the Project will represent a "biologically equivalent or superior" alternative to avoidance. This document summarizes the findings of general biological surveys, habitat assessments, and vegetation mapping; as it relates to riparian and vernal pool resources, and species with MSHCP survey requirements. A more detailed reporting of biological resources, including results of species-specific focused surveys, are contained within the Project's Biological Technical Report [Glenn Lukos Associates Inc. (GLA), 2021]. Specific details regarding the delineation of MSHCP Riparian/Riverine Areas are contained in the Project's Jurisdictional Delineation Report (GLA, 2021).

2 INTRODUCTION

2.1 Project Area

The Project site comprises approximately 65.44 acres in the City of City of Beaumont, Riverside County, California [Exhibit 1 – Regional Map] and is located within Section 7 of Township 3 South, Range 1 West, of the U.S. Geological Survey (USGS) El Casco, California 7.5" topographic quadrangle map [Exhibit 2 – Vicinity Map]. The Project site is generally bordered by Potrero Boulevard to the east, State Route 60 (SR-60) to the north, an active construction site to the west, and undeveloped open space to the south, which includes Cooper's Creek. Accessor's Parcel Numbers (APNs) within the Project site: 424010009, 424010010, and 424010020.

The *Project site* is defined as the 65.44 acres of land owned by the applicant as identified on Exhibit 3 – Site Plan Map. The term *Project footprint* is defined as the land proposed for direct impact by the Project, including both on-site and off-site impact areas, which total 37.03 acres. All impacts are assumed permanent, unless explicitly stated as temporary. The term *Avoided* refers to land not proposed for development. Approximately 28.41 acres of avoided land occurs outside of the Project footprint but within the Project site.

2.2 MSHCP Application to the Project

The Project site is located within The Pass Area Plan of the Western Riverside County Multiple Species Habitat Conservation Plan [MSHCP] (Dudek 2003), but is not located within an MSHCP Criteria Area/Conservation Area. The southern half of the Project site is located within the MSHCP Mammal Survey area, while the entirety of the Project site is located within the MSHCP Burrowing Owl Survey Area and the Narrow Endemic Plant Species Survey Area (NEPSSA) [Exhibit 4 – MSHCP Overlay Map]. Specifically, the site occurs in NEPSSA Survey Area 8. As such, pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*). The Project site is not located within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA), the MSHCP Amphibian Survey Area, MSHCP suitable habitat areas for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), or Core/Linkage areas.

2.3 Project Description

The proposed Project, commonly referred to as the "Potrero Logistics Center Warehouse Project", includes the construction and operation of an approximately 577,920-square foot "high-cube" industrial warehouse facility with associated parking and water-quality detention basins. The Project would also include other associated facilities and improvements such as a perimeter fencing, onsite and perimeter landscaping, lighting, exterior sidewalks, and associated utilities. The Project will incorporate two detention/water quality basins, one in the northern portion of the Project site and one in the southern portion of the Project site. Stormwater and nuisance flows would be contained within the basins prior to exiting the site through a storm drain system. The Project would also construct a retaining wall around a portion of the site and manufactured slopes are proposed to be landscaped, irrigated, and maintained by the Project developer.

2.4 Existing Conditions

Topography within the 65.44-acre Project site consists of gently sloping hills with elevations ranging from approximately 2,365 to 2,450 feet above mean sea level (AMSL). As depicted on Exhibit 5 – Soils Map, the National Cooperative Soil Survey (NCSS) has identified the following soil types as occurring (currently or historically) within the Project site: Badland; Greenfield sandy loam, 2 to 8 percent slopes, eroded; Placentia fine sandy loam, 5 to 15 percent slopes, eroded; Ramona Sandy Loam, 2 to 5 percent slopes,

eroded; Riverwash; San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded; San Emigdio loam, 2 to 8 percent slopes; and Terrace escarpments.

As depicted on Exhibit 6 – Vegetation Map and below in Table 2-1 - Summary of Vegetation/Land Use Types, the Project site is dominated by non-native grassland (26.78 acres) with remnant patches of native Riversidean sage scrub (6.23 acres) and scrub oak chaparral (7.05 acres). Within the southern portion of the Project site and within the avoided areas is Cooper's Creek, which is comprised of 6.21 acres of willow riparian forest. Disturbed/developed land use areas (19.26 acres) occur throughout the site.

Table 2-1. Summary of Vegetation/Land Use Types for the Project Site

VEGETATION COMMUNITY/LAND COVER	PROJECT SITE (acres)
Non-Native Grassland	26.78
Riversidean Sage Scrub	6.23
Scrub Oak Chaparral	7.05
Willow Riparian Forest	6.21*
Disturbed/Developed	19.26
Total	**65.53**[1]

Non-Native Grassland

The Project site supports 26.78 acres of non-native grassland. This plant community covers the majority of the Project site, as well as adjacent undeveloped lands to the east and west. The non-native grassland areas do not appear to be routinely disked or mowed; however, a mosaic of unauthorized recreational off-roading trails is interspersed throughout the non-native grassland, indicating a level of routine disturbance throughout the habitat. The non-native grassland is dominated by invasive grass species including ripgut brome (*Bromus diandrus*), slim oat (*Avena barbata*), and red brome (*Bromus rubens*). Other commonly occurring species include common fiddleneck (*Amsinckia intermedia*), Palmer goldenweed (*Ericameria palmeri*), doveweed (*Croton setiger*), and annual bur-sage (*Ambrosia acanthicarpa*).

[1]The 0.09-acre difference between the Project Site acreage total and Vegetation Community/Land Cover acreage total is attributed to mapping differences between the vegetation mapping and jurisdictional delineation mapping associated with Cooper's Creek. The vegetation mapping included 6.12 acres of Willow Riparian Forest whereas the jurisdictional delineation mapping included 6.21 acres. However, this area is avoided from Project impacts; therefore, no impacts to Cooper's Creek or the associated willow riparian will be affected.

Riversidean Sage Scrub

The Project site supports 6.23 acres of Riversidean sage scrub scattered throughout the site in multiple, disjunct patches. These areas are primarily dominated with California buckwheat (*Eriogonum fasciculatum* var. *polifolium*); however, other commonly occurring species include California sagebrush (*Artemisia californica*), chamise (*Adenostoma fasciculatum*), and white sage (*Salvia apiana*).

Scrub Oak Chaparral

The Project site supports 7.05 acres of scrub oak chaparral scattered throughout the site in multiple, disjunct patches. The canopy is primarily dominated with small, shrubby scrub oaks (*Quercus berberidifolia*), with redberry (*Rhamnus crocea*), sugar bush (*Rhus ovata*), fragrant sumac (*Rhus aromatica*) and *Ceanothus* sp. also commonly occurring throughout this plant community. The understory is dominated with ripgut brome, common phacelia (*Phacelia distans*), miner's lettuce (*Claytonia parviflora*), and goose grass (*Galium aparine*).

Willow Riparian Forest

The Project site supports 6.21 acres of willow riparian forest associated with Cooper's Creek, a perennial stream which traverses the southern portion of the Project site. The tree canopy is primarily dominated with black willow (*Salix gooddingii*), polished willow (*Salix laevigata*), Southern California black walnut (*Juglans californica*), Fremont cottonwood (*Populus fremonti*), and blue elderberry (*Sambucus nigra* ssp*. caerulea*). The riparian understory is comprised of mule fat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica*), Southern California grape (*Vitis girdiana*), and cattail (*Typha* sp.).

Disturbed/Developed

The Project site supports 19.26 acres of disturbed and developed areas, which are scattered throughout the site. The disturbed and developed areas within the Project site are generally devoid of vegetation. These areas consist of unpaved trails established by unauthorized recreational motorized vehicles, active construction associated with the development of West 4th Street, Potrero Boulevard improvements to the northeast, and multiple associated equipment staging areas and graded slopes from adjacent projects that surround the site.

2.4 Infeasibility of Avoidance

Volume I, Section 6.1.2 of the MSHCP requires that projects develop avoidance alternatives, if feasible, that would allow for full avoidance of riparian/riverine areas. Under the proposed Project's Purpose and Need, the complete avoidance of MSHCP riparian/riverine areas within the Project site is not feasible. Approximately 1.47 acres of MSCHP riparian/riverine resources would be impacted by the proposed Project. Therefore, this document has been prepared to demonstrate that the Project will comply with the MSHCP guidelines and provide a "biologically equivalent or superior" alternative to avoidance.

3 RIPARIAN/RIVERINE MITIGATION (SECTION 6.1.2)

3.1 Methods

The MSHCP defines riparian 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*. In the absence of riparian habitat, the MSHCP defines riverine areas as *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.

Furthermore, the MSHCP requires habitat assessments/focused surveys for certain species identified under Section 6.1.2, including riparian birds and fairy shrimp. Birds requiring assessments include the least Bell's vireo (*Vireo bellii pusillus*, LBV), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). Fairy shrimp requiring assessments include listed species such as the vernal pool fairy shrimp (*Branchinecta lynchi*) and Riverside fairy shrimp (*Streptocephalus woottoni*), as well as the Santa Rosa Plataeu fairy shrimp (*Linderiella santarosae*). Although not directly referenced by Section 6.1.2, assessments also should consider the San Diego fairy shrimp (*Branchinecta sandiegonensis*) where appropriate. For fairy shrimp, habitat assessments should consider all non-vernal pool

features that could sufficiently hold water, including stock ponds, ephemeral pools, road ruts, and other human made depressions.

GLA biologists reviewed the Project site in December of 2020 to document MSHCP riparian/riverine resources. Prior to beginning the field assessment, a color aerial photograph, a topographic base map of the property, and the previously cited USGS topographic map were examined to determine the locations of potential riparian/riverine areas. Suspected resources were field checked for the presence of definable channels and/or riparian vegetation. While in the field the limits of riparian/riverine resources were recorded onto a color aerial photograph using visible landmarks and/or sub-meter accuracy global positioning system devices.

GLA surveyed the Project site for vernal pool/seasonal pool habitat, including features with the potential to support listed fairy shrimp in November 2020. To assess for vernal/seasonal pools (including fairy shrimp habitat), GLA biologists evaluated the topography of the site, including whether the site contained depressional features/topography with the potential to become inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding. Furthermore, individual features identified during the initial habitat assessment were evaluated for hydrology on multiple occasions during the 2020-2021 rainfall season, including December 31, January 6, January 26, February 3, February 9, March 12, and March 19, 2021. As stated below, due to the lack of sustained hydrology during the 2020-21 wet season, no sampling for fairy shrimp was conducted. In August 2021 GLA performed dry season soil collection within the features identified during the 2020-21 rainfall season following USFWS Survey Protocols. Soil samples were sent to Helix Environmental Planning, Inc. for fairy shrimp cysts processing (Appendix C - Dry Season Fairy Shrimp Soil Processing Report (Helix, 2021).

3.2 Results/Impacts

Results

The Project site contains three MSHCP riparian/riverine features, including 6.33 acres of riparian areas and 1.35 acres of riverine areas. As summarized below in Table 3-1 – Summary of MSHCP Riparian/Riverine Areas and depicted on Exhibit 7 – MSHCP Riparian/Riverine Resources Map, two ephemeral features (Drainage A and Tributary A-1) occur within the northern portion of the Project site and a perennial feature, Cooper's Creek occurs in the southern portion of the avoided Project site.

1. Drainage A

Drainage A enters the northeastern portion of the Project site from a 48-inch corrugated-metal pipe (CMP) culvert that runs under the newly constructed Potrero Boulevard, as depicted on Exhibit 7. From the culvert, Drainage A follows a natural east to southwest path for approximately 1,489 feet until it exits the Project site. The drainage has been modified as a result of receiving stormwater flows from upstream development, including becoming larger in width and more incised. It exhibited characteristics of a low-flow channel, sediment size differences, and smaller braided channels throughout most of its length. The upstream portion of Drainage A is approximately 11 feet in width and then widens to an approximately 100-foot active channel. Following the topography of the site to the southwest, Drainage A's width decreases to approximately 30 feet prior to its confluence with Tributary A-1 in the central portion of the Project site and becomes incised to 6 feet in width for the remaining length until it exits the site. As summarized in Table 3-1, approximately 1.23 acres of MSHCP riverine resources and 0.12 acre of MSCHP riparian resources are associated with Drainage A.

Vegetation associated with Drainage A is dominated by a mix scrub oak chaparral. Vegetation species consist of scrub oak, mule fat, black elderberry, California buckwheat, Russian thistle (*Salsola tragus*), and red brome.

Several individual elderberry and scrub oaks were designated as riparian habitat (0.12 acre) within Drainage A, as noted in Table 3-1 and identified on Exhibit 4. These areas are also considered as MSHCP riparian resources; however, as these individual trees are isolated within the surrounding Riversidean sage scrub and non-native grassland communities, they do not have the potential to support Riparian Riverine associated species (MSHCP Section 6.1.2) that are typically associated with riparian habitats such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo.

2. Tributary A-1

Tributary A-1 originates on the Project site within the eastern boundary. Based on historic aerial images and topographic maps, Tributary A-1 occurs as two erosional feature segments that have become incised with defined bed and banks. As depicted on Exhibit 7, Tributary A-1 begins in the eastern portion of the Project site and continues in a west-northwest direction for approximately 699 feet until it converges with Drainage A. The upstream portion of Tributary A-1 is approximately 6 feet in width on the northern segment and 5 feet in width within the southern segment. These segments continue down slope for approximately 150 feet until they converge. Average widths in the downstream sections of Tributary A-1 are approximately 7 feet wide as the drainage continues into

Drainage A. Approximately 0.12 acre of MSCHP riverine resources are associated with Tributary A-1.

Vegetation associated with Tributary A-1 consisted of scrub oak, chamise, California sage brush, California buckwheat, doveweed, summer mustard, Russian thistle, and red brome.

No riparian habitat was observed within Tributary A-1; therefore, Tributary A-1 does not support suitable habitat for MSHCP riparian species.

3. Cooper's Creek

Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project site, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek. Cooper's Creek is a perennial stream that exhibits a defined bed, bank, and channel. As shown on Exhibit 7, Cooper's Creek contains a riparian canopy width of approximately 150 feet throughout its length within the Project's southern boundary.

Vegetation within the avoided Project site associated with Cooper's Creek consisted of black willow, polished willow, black walnut, Fremont's cottonwood, and black elderberry as the dominant riparian canopy forming species. Dominant wetland vegetation within the riparian understory comprised of mule fat, stinging nettle , Southern California grape, and cattail.

Cooper's Creek contains dense riparian habitat that may support MSHCP riparian species such as least Bell's vireo. In April 2019, Jericho Systems, Inc. performed biological resource assessments within portions of the avoided Project site and detected three LBV individuals calling from the riparian habitat associated with Cooper's Creek. GLA did not perform focused-surveys for LBV or other riparian species as any suitable habitat will be avoided by the proposed Project.

Table 3-1. Summary of MSHCP Riparian/Riverine Areas

Drainage Name	MSHCP Riverine Resources (acres)	MSHCP Riparian Resources (acres)	Total Riparian/Riverine Resources (acres)	Length (linear feet)	Project Impacts (acres)	Project Avoidance (acres)
Cooper's Creek	0	6.21	6.21	1,692	0	6.21
Drainage A	1.23	0.12	1.35	1,489	1.35	0
Tributary A-1	0.12	0	0.12	699	0.12	0
Total	**1.35**	**6.33**	**7.68**	**3,880**	**1.47**	**6.21**

Vernal Pool/Seasonal Pool Habitat (Including Fairy Shrimp)

GLA observed five features within the Project site that exhibited indicators of potential ponding (i.e. soil cracking, topographic low-points), which may pond water for durations long enough to support fairy shrimp. These features were characterized as small (less than 10m) depressions associated with low areas adjacent to a dirt trail and road ruts. The five features were monitored during eight site visits within the 2020-21 wet season. On March 12, 2021, all five features exhibited ponding greater than three centimeters (>3cm). However, during the March 19th site visit, the features did not show evidence of inudation for longer than seven days. Thus, it was concluded that the 2020-21 wet season surveys were inconclusive for the presence of fairy shrimp, including listed species. None of these features constitute MSHCP vernal pools due to a lack of hydric soils and due to the fact that no plant species associated with vernal pools were observed within these features. GLA also performed dry season soil collection within the features identified during the 2020-2021 rainfall season and sent collected soil samples to Helix Environmental, Inc. in September of 2021. Neither *Branchinecta* nor *Streptocephalus* cysts were present within the five features.

Impacts

Riparian/Riverine Resources

As shown in Table 3-1, the proposed Project will impact approximately 1.47 acres of MSHCP riparian/riverine resources within Drainage A [1.35 acres (1.23 acres riverine and 0.12 acre riparian)] and Tributary A-1 [0.12 acre (all of which is riverine)].

As stated above, Project impacts will only occur within the northern portion of the Project site, therefore; no impacts to Cooper's Creek or its associated riparian habitat will occur.

Furthermore, no impacts to riparian-associated MSHCP species (least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo) will occur under the proposed Project.

Vernal Pool/Seasonal Pool Habitat (Including Fairy Shrimp)

As stated above, five ponded features were evaluated for fairy shrimp during the 2020-21 wet season and soil samples were collected from each of these features during the 2021 dry season. Due to the lack of adequate precipitation and sufficient ponding within the features, none of the features remained inundated seven days after a rain event during the 2020/2021 season, and therefore wet season surveys were inconclusive. However, dry season samples were negative for both *Branchinecta* and *Streptocephalus* cysts. Given the limited opportunity for sufficient inundation to support fairy shrimp life cycles and the lack of branchiopod cysts detected during the dry season surveys, it is highly unlikely that the features support any fairy shrimp, including listed species.

3.3 Mitigation and Equivalency

3.3.1 Direct Effects

As noted above, permanent impacts to 1.47 acres of MSHCP riparian/riverine resources will be unavoidable under the implementation of the proposed project. Therefore, the purchase of compensatory mitigation credits from an approved mitigation bank or in-lieu fee program for the rehabilitation, re-establishment, and/or establishment of MSHCP riparian/riverine resources at a minimum 2:1 mitigation-to-impact ratio will be considered superior mitigation as compared to the preservation of 1.47 acres of ephemeral drainage features within the Project site. The Project team's mitigation proposal consists of the purchase of 2.94 acres of rehabilitation mitigation credits (a 2:1 mitigation-to-impact ratio) from the Riverpark Mitigation Bank.

Although the Project will permanently impact 1.47 acres of MSHCP riparian/riverine resources, no direct effects to MSHCP conserved habitats, riparian/riverine species, existing wildlife linkages and/or functions within the MSHCP are expected. Therefore, the proposed mitigation at the Riverpark Mitigation Bank would result in a superior preservation of the amount and quality of conserved MSHCP riparian/riverine habitat. The proposed mitigation will also benefit MSHCP riparian/riverine-associated species by enhancing and/or establishing habitat to a greater function and value to which is found on the Project site.

3.3.2 Indirect Effects

Proposed Projects in proximity to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV). This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

The Project's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to address toxins, runoff, and water quality during construction.

Furthermore, projects adjacent to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) shall avoid the use of invasive plant species in landscaping, including invasive, non-native plant species listed in Volume I, *Table 6-2* of the MSHCP.

Willow riparian habitat associated with Cooper's Creek occurs at various distances ranging from approximately 50 to 320 feet south of the Project footprint and represents known habitat for the state and federally listed LBV. As stated above, Jericho Systems, Inc. performed biological resource assessments in April 2019 within portions of the Project site and detected three LBV individuals calling from the riparian habitat associated with Cooper's Creek. Although 100 percent of the habitat that is considered occupied by LBV will be avoided by the proposed Project and habitat that represents long-term conservation value for LBV will not be impacted by the proposed Project; GLA recommends the following measures be implemented, regardless of time of year unless otherwise specified below, to ensure the nesting/breeding activities of this species are not disrupted and no impact to habitat that represents long-term conservation value for LBV occurs as a result of the proposed Project:

- The project impact footprint, including any construction buffer (300 feet from the nearest extent of adjacent riparian habitat associated with Cooper's Creek during the period of April 1st through August 31st, and 100 feet during the remainder of the year, as noted below), shall be staked and fenced (e.g., with orange snow fencing, silt fencing or a material that is clearly visible) and the boundary shall be confirmed by a qualified biological monitor prior to ground disturbance. The construction site manager shall ensure that the fencing is maintained for the duration of construction and that any required repairs are completed in a timely manner.

- Equipment operators and construction crews will be informed of the importance of the construction limits by the biological monitor prior to any ground disturbance.

- Construction activities within 300 feet of the nearest extent of adjacent riparian habitat associated with Cooper's Creek will be avoided from April 1st through August 31st.

- For any vegetation clearing or work within 100 feet of Cooper's Creek, which is limited to September 1st through March 31st (outside of the LBV nesting season), a biologist will monitor to ensure encroachment into Cooper's Creek does not occur.

- Active construction areas will be watered regularly (at least once every two hours) to control dust and thus minimize impacts on vegetation within Cooper's Creek.

- Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the limits of disturbance and designated staging areas and routes of travel approved by the biological monitor.

- Exotic plant species removed during construction will be properly handled to prevent sprouting or regrowth. Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds before mobilizing to the site and before leaving the site during the course of construction. The cleaning of equipment will occur at least 300 feet from jurisdictional aquatic features, including Cooper's Creek. If the location is closer, it must be approved by the biological monitor.

- Vegetation will be covered while being transported, and vegetation materials removed from the site will be disposed of in accordance with applicable laws and regulations.

- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances will occur only in designated areas within the limits of disturbance and at least 200 feet from jurisdictional aquatic features, including Cooper's Creek. These designated areas will be clearly marked and located in such a manner as to contain runoff and will be approved by the biological monitor.

- To avoid attracting predators, the project site will be kept clear of trash and debris. All food related trash items will be enclosed in sealed containers and regularly removed from the site.

4 NARROW ENDEMIC PLANT SPECIES MITIGATION (SECTION 6.1.3)

4.1 Methods

The Project site is located within the Narrow Endemic Plant Species Survey Area (NEPSSA) 8. Based on literature resources, vegetation profiles, and a general habitat assessment, it was determined that the Project site does support habitat for one or more of the NEPSSA plant species listed below. Pursuant to the MSHCP, the following targeted species were evaluated through habitat assessments and focused surveys: Marvin's onion and many-stemmed dudleya. Focused surveys were conducted by GLA on March 23, April 14, and May 4, 2021. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). As applicable, survey(s) were conducted at appropriate times based on precipitation and/or 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.

4.2 Results/Impacts

No NEPSSA species were observed within the Project site during the focused surveys conducted for Marvin's onion and many-stemmed dudleya. As a result of the negative surveys for Marvin's onion and many-stemmed dudleya, no impacts to these NEPSSA species is expected from the proposed Project, as such the proposed Project would be consistent with *Volume I, Section 6.1.3* of the MSHCP.

5 ADDITIONAL SURVEY NEEDS (SECTION 6.3.2)

5.1 Criteria Area Species Survey Area - Plants

The Project site is not located within the Criteria Area Plant Species Survey Area (CAPSSA). As such, there are no MSHCP requirements pertaining to CAPSSA species applicable to the Project, including focused plant surveys and avoidance/mitigation.

5.2 Burrowing Owl

5.2.1 Methods

The Project site occurs within the MSHCP Burrowing Owl (*Athene cunicularia*, BUOW) Survey Area, and suitable habitat for the species occurs throughout the site in the ruderal and disturbed areas, including the presence of California ground squirrel (*Otospermophilus beecheyi*) burrows [Exhibit 8 - Burrowing Owl Survey Results Map]. As such, focused surveys were conducted by GLA pursuant to the MSHCP in March, April, and May of 2021. GLA biologists did not observe burrowing owls or evidence of burrowing owls (e.g., cast pellets, preened feathers, or whitewash clustered at a burrow) during the focused burrowing owl surveys; therefore, the species was confirmed absent.

5.2.2 Results

The Project footprint contains suitable habitat for burrowing owls; however, burrowing owls were not detected during focused surveys. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys are conducted prior to site grading. As such, the following measure shall be implemented prior to ground disturbance to avoid direct impacts to burrowing owls and to ensure consistency with the MSHCP:

- Pre-Construction Survey. A 30-day pre-construction survey for burrowing owls is required prior to future ground-disturbing activities (e.g., vegetation clearing, clearing and grubbing, site watering, equipment staging, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the initiation of ground-disturbing activities, the project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies and will need to coordinate in the future with the RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure that burrowing owl have not colonized the site since it was

last disturbed. If burrowing owls are found, the same coordination described above will be necessary.

5.3 Mammals

5.3.1 Methods

The southern portion of the Project site is located within a MSHCP Mammal Survey Area [Los Angeles pocket mouse (*Perognathus longimembris*, LAPM)]. As such, a phase one assessment (i.e. habitat assessment) was conducted on December 8, 2020 by Mr. Philippe Vergne of ENVIRA consulting (USFWS TE-831207-4 and CDFW MOU for trapping small mammals). The habitat assessment was performed by walking transects through the mammal survey area and visually inspecting topography, soil conditions, and vegetation characteristics suitable for LAPM habitat.

5.3.2 Results

During the habitat assessment, it was determined that no suitable habitat for LAPM occurs within the Project site; therefore, trapping of LAPM was not warranted. See Appendix A for further details regarding the phase one habitat assessment for LAPM within the Project site.

Mr. Vergne determined that no suitable habitat for LAPM occurs within the Project site; therefore, the proposed Project would be consistent with *Volume I, Section 6.3.1* of the MSHCP.

5.4 Amphibians

The Project site is not located within a MSHCP Amphibian Survey Area. As such, there are no MSHCP requirements pertaining to amphibians applicable to the Project, including focused surveys and avoidance/mitigation.

6 DELHI SANDS FLOWER-LOVING FLY

The Project site is not located within Delhi soils mapped within the MSHCP baseline data, and therefore habitat assessments/focused surveys are not required for the Delhi Sands flower-loving fly.

7 REFERENCES

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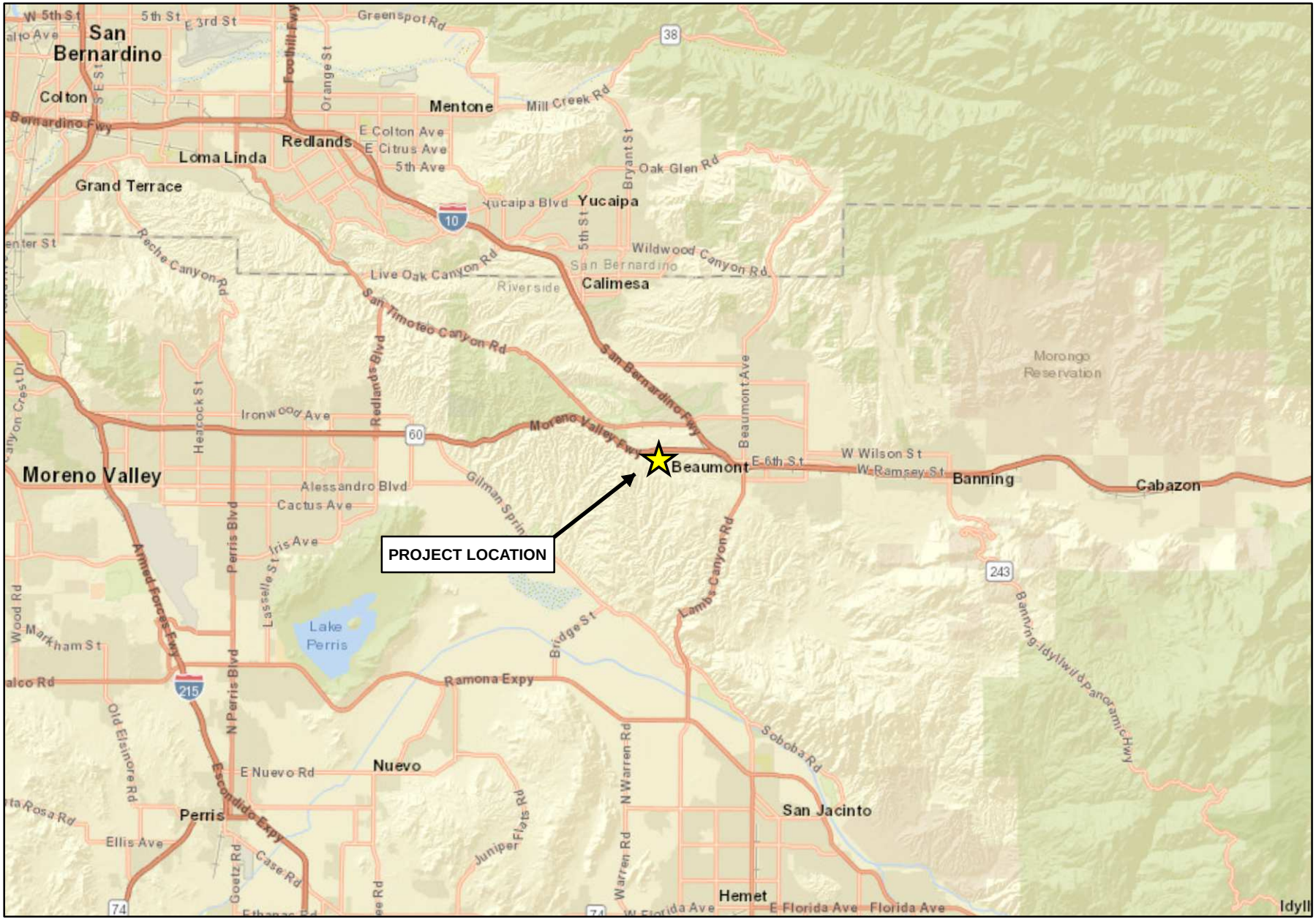


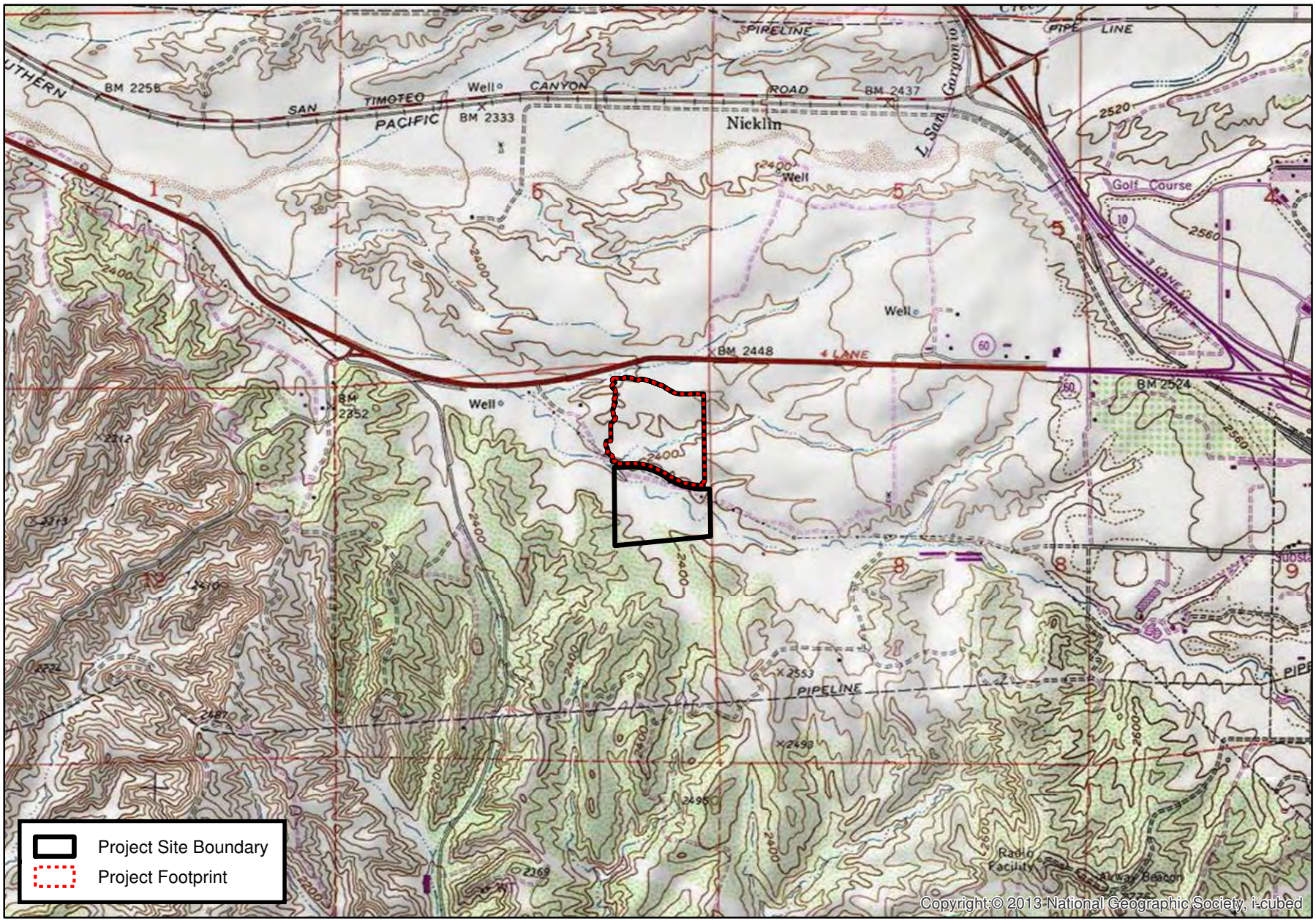
Source: ESRI World Street Map

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

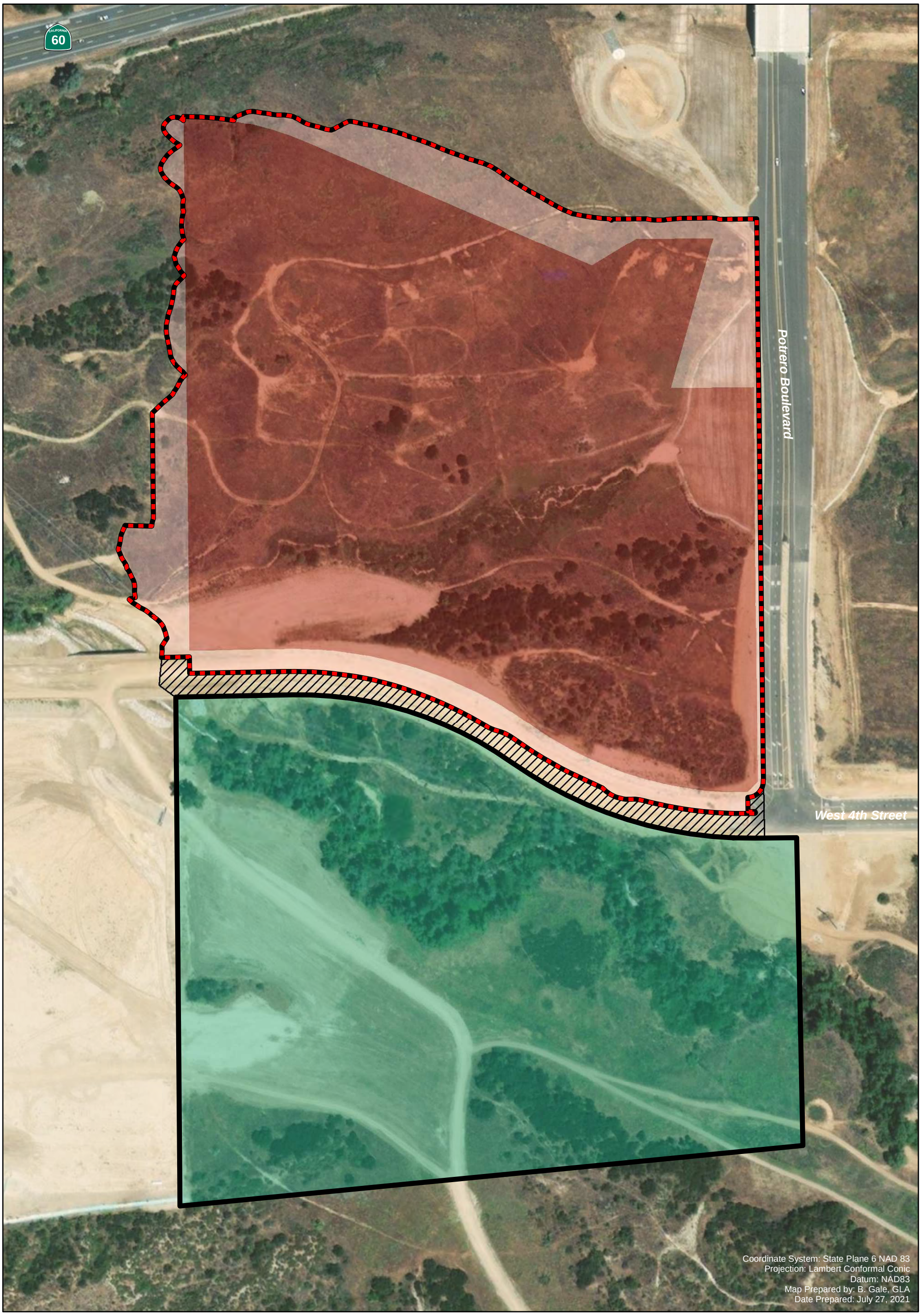


POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project Site Boundary
Project Footprint
Onsite Impact
Offsite Impact
Avoided
Not a Part

N

0 100 200 400
Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Site Plan Map

GLENN LUKOS ASSOCIATES

Exhibit 3

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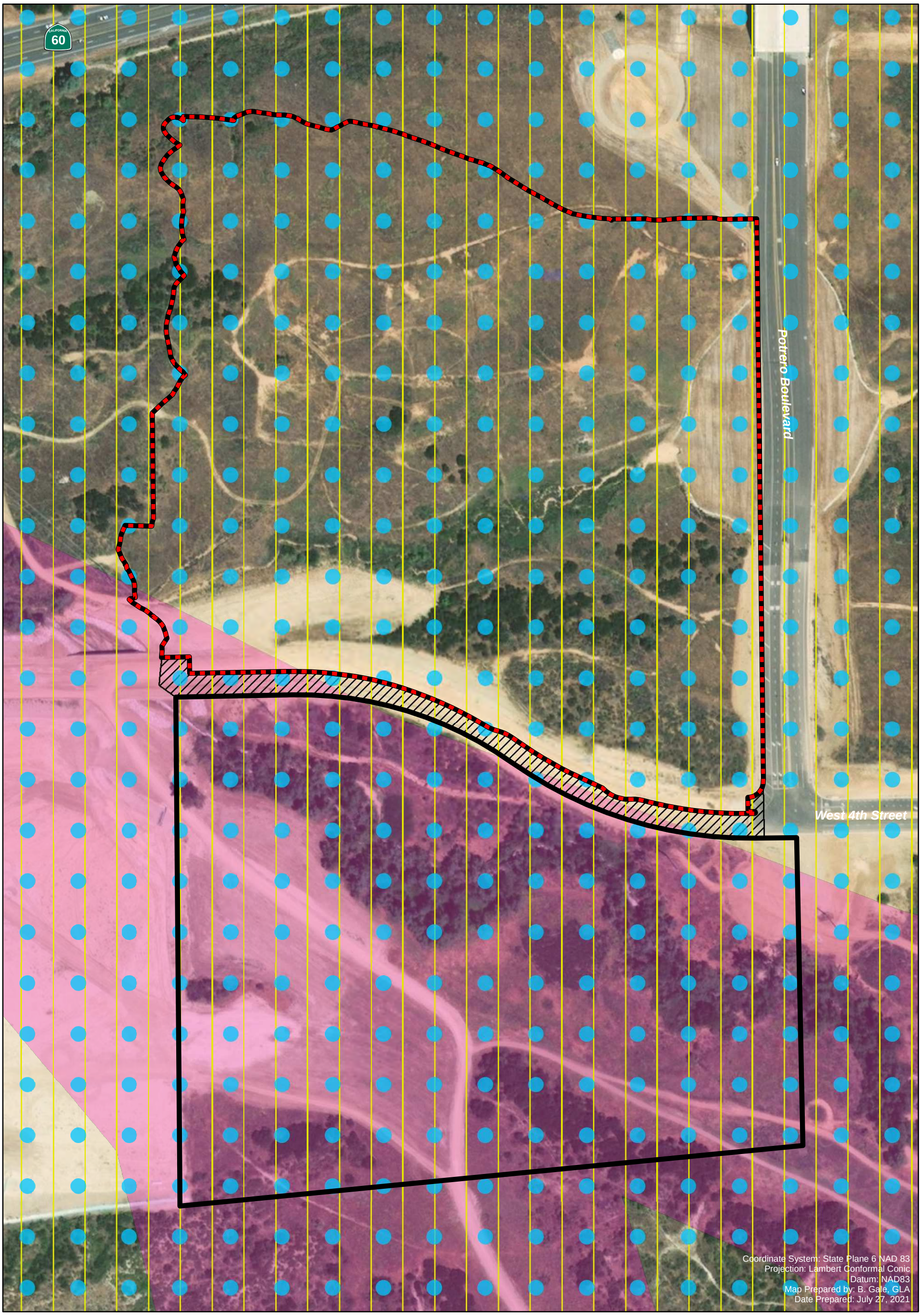

Project Site Boundary

Project Footprint

Not a Part

Burrowing Owl Survey Area

Mammal Survey Area

Narrow Endemic Plant Species Survey Area

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4

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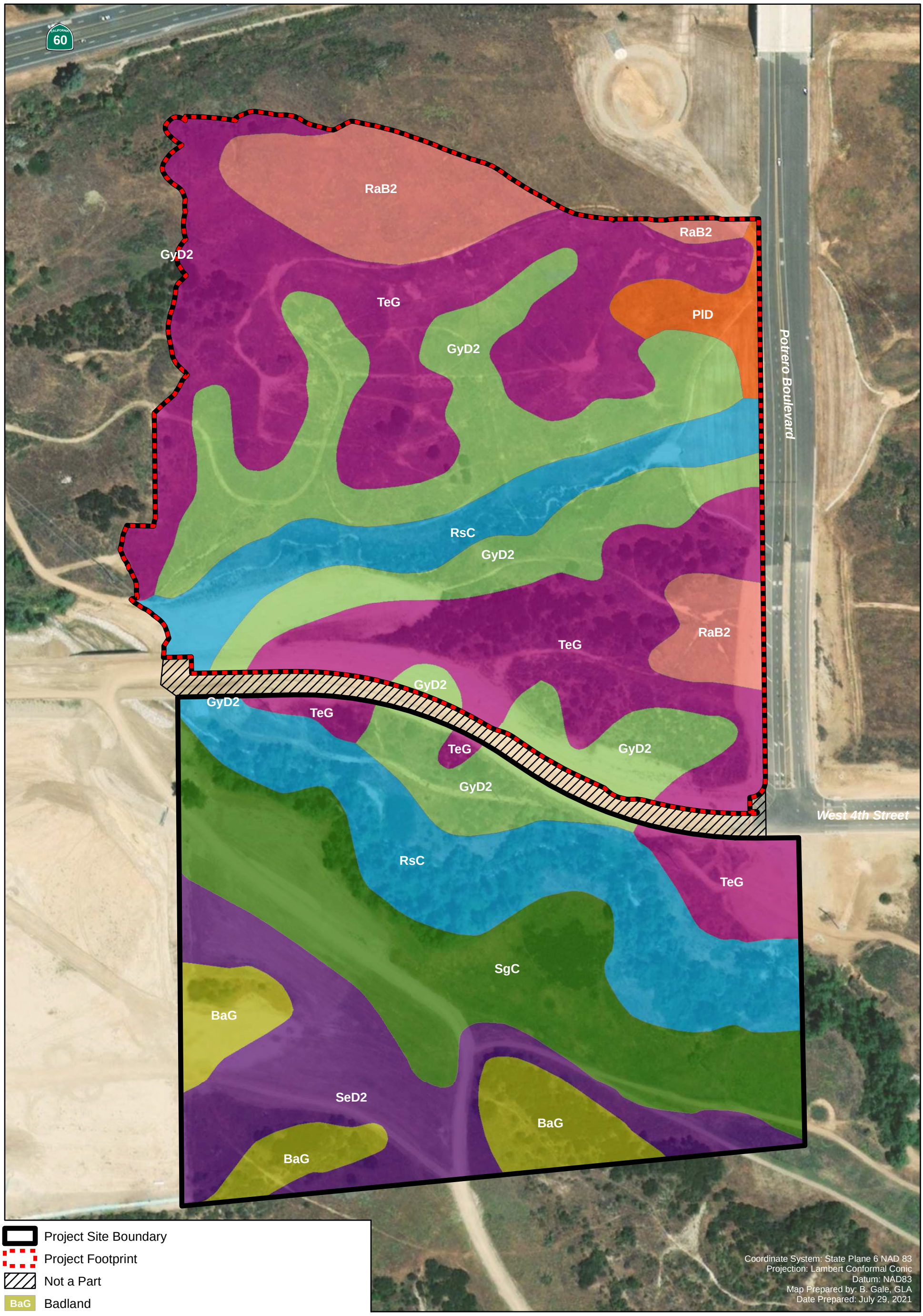

Project Site Boundary

Project Footprint

Not a Part

BaG Badland

GyD2 Greenfield sandy loam, 8 to 15 percent slopes, eroded

PlD Placentia fine sandy loam, 5 to 15 percent slopes

RaB2 Ramona sandy loam, 2 to 5 percent slopes, eroded

RsC Riverwash

SeD2 San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded

SgC San Emigdio loam, 2 to 8 percent slopes

TeG Terrace escarpments

N

0 100 200 400

Feet

1 inch = 200 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: July 29, 2021

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 5

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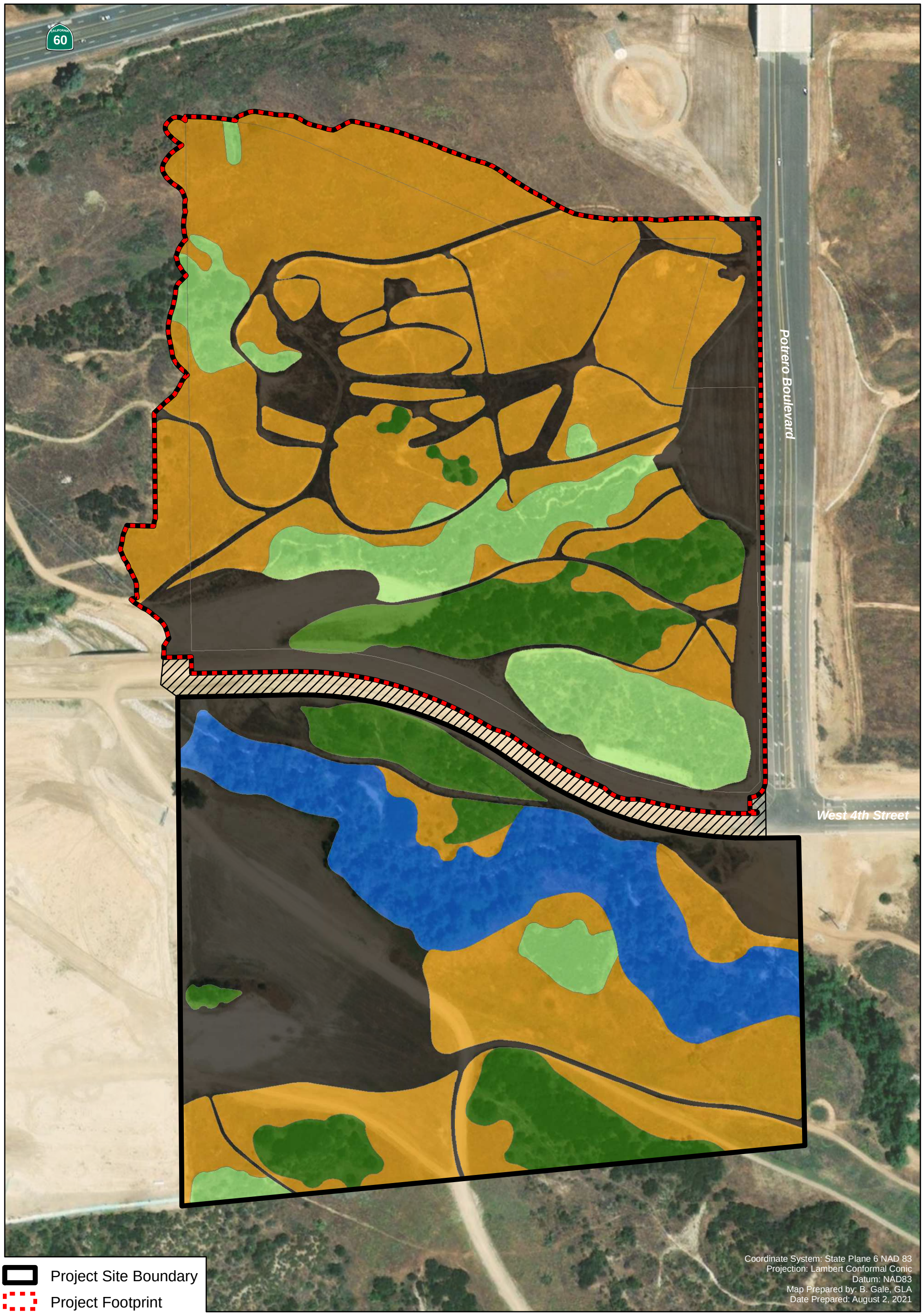

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 6

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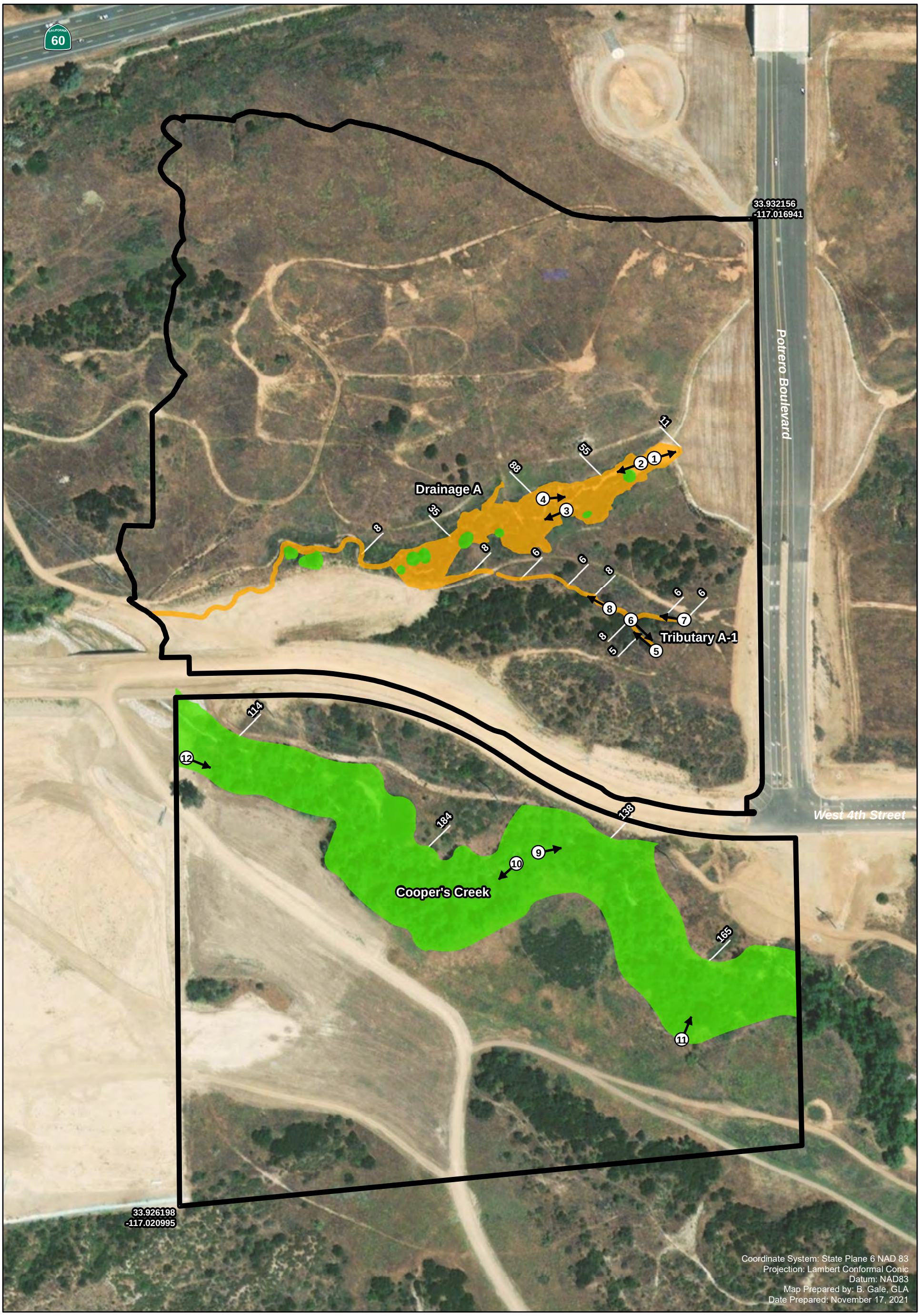

Project Site

MSHCP Riparian

MSHCP Riverine

6 Width of Drainage in Feet

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

MSCHP Riparian/Riverine Resources Map

GLENN LUKOS ASSOCIATES

Exhibit 7

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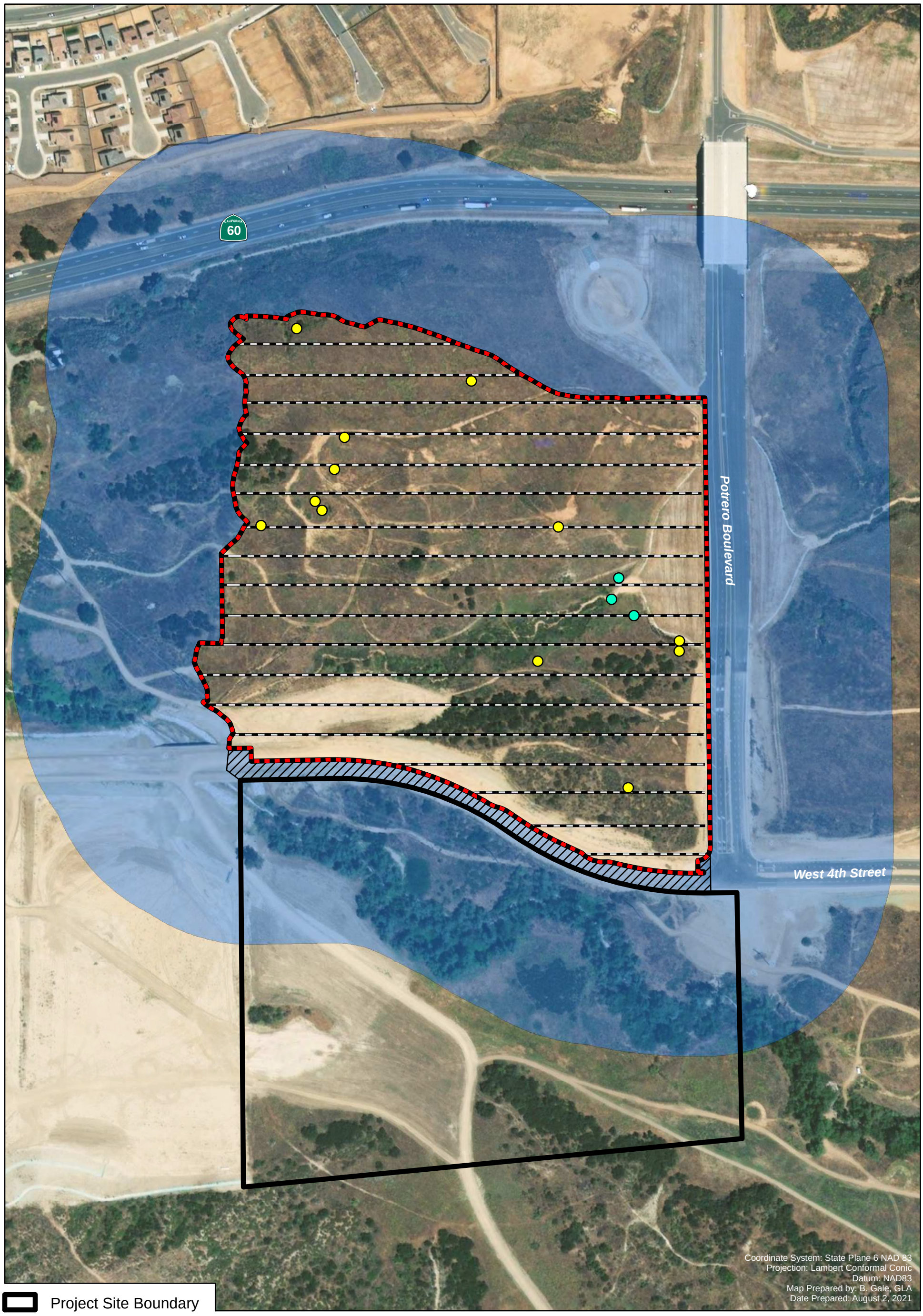

Project Site Boundary
Project Footprint
Not a Part
500' Visual Survey Area
Approximate Transect
Burrow
Burrow Complex

N

0 125 250 500
Feet

1 inch = 250 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: August 2, 2021

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Burrowing Owl Survey Results Map

GLENN LUKOS ASSOCIATES

Exhibit 8

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Photograph 1: Representative site photograph taken from the northwestern Project boundary, facing southeast. Note the predominant non-native grassland vegetation community throughout the site (November 17, 2020).

Photograph 2: Representative photograph of Riversidean sage scrub vegetation community. Note the dominance of California buckwheat throughout this area. The photo is facing north (November 17, 2020).

Photograph 3: Representative site photograph taken from the eastern Project boundary, facing west. Note the scrub oak chaparral, Riversidean sage scrub, and non-native grassland vegetation communities (November 17, 2020).

Photograph 4: View of the Riversidean sage scrub vegetation community at the southeastern limit of the Project footprint, facing southeast. Note the active road construction in the background (November 17, 2020).

Photograph 5: View of Cooper's Creek in the avoided southern portion of the Project site. The photo is facing east (December 9, 2020).

Photograph 6: View of the dense willow riparian vegetation community associated with Cooper's Creek. The photo is facing north (November 17, 2020).

Photograph 7: Image of ground squirrel burrow representing suitable habitat for burrowing owl (March 23, 2021).

Photograph 8: View of the southern segment of Drainage A-1. Note the individual scrub oak within the drainage and adjacent non-native grassland community. The photo is facing northwest (December 9, 2020).

APPENDIX A

BIOLOGICAL TECHNICAL REPORT

FOR THE

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

LOCATED IN THE CITY OF BEAUMONT, RIVERSIDE COUNTY, CALIFORNIA

Prepared For:

ASM Beaumont Investors, LLC
3990 Westerly Place, Suite 140
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Prepared By:

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1940 E. Deere Avenue, Suite 250
Santa Ana, California 92705
Phone: (949) 340-3828
Report Preparer: Jillian Stephens

August 12, 2021

INFORMATION SUMMARY

A. Report Date: August 12, 2021

B. Report Title: Biological Technical Report for the Potrero Logistics Center Warehouse Project

C. Project Site Location: City of Beaumont, Riverside County, California

D. Owner/Applicant:
ASM Beaumont Investors, LLC
3990 Westerly Place, Suite 140
Newport Beach, CA 92660
Contact: Cortland Armour
Phone: (949) 757-0510 ext. 105
Email: cortland@armourproperties.com

E. Principal Investigator:
Glenn Lukos Associates, Inc.
1940 E. Deere Avenue, Suite 250
Santa Ana, California 92705
Phone: (949) 837-0404
Report Preparer: Jillian Stephens

F. Report Summary:

This report evaluates impacts to biological resources from the development of the Potrero Logistics Center Warehouse Project [Project]. Biological surveys for the Project were conducted by Glenn Lukos Associates, Inc. (GLA).

The proposed Project is located within The Pass Area Plan of the Western Riverside County Multiple Species Habitat Conservation Plan [MSHCP] (Dudek 2003), but is not located within an MSHCP Criteria Area/Conservation Area. The proposed Project site is located within the MSHCP Burrowing Owl Survey Area, the MSHCP Mammal Survey Area, and the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA); however, the proposed Project site is not located within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA), the MSHCP Amphibian Survey Area, MSHCP suitable habitat areas for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), or Core and Linkage areas.

GLA Biologists/Regulatory Specialists began site-specific surveys in November 2020. Pursuant to MSHCP policies, biological surveys included habitat assessments for special-status species including the Los Angeles pocket mouse, as well as focused surveys for the burrowing owl (*Athene cunicularia*; BUOW) and targeted NEPSSA species including Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*). In addition, GLA conducted vegetation mapping, mapping of MSHCP riparian/riverine areas, and a delineation of potentially jurisdictional waters.

The proposed Project would result in potentially significant impacts to habitat supporting two listed species: California gnatcatcher (*Polioptila californica*) [CAGN] and Stephens' kangaroo rat [SKR] (*Dipodomys stephensi*); however, impacts to the CAGN and SKR would be reduced to a level less than significant through the Project's consistency and compliance with the MSHCP (including a per acre fee payment).

The proposed Project would also result in the loss of potential habitat for other non-listed, special-status species, including MSHCP non-covered species. Impacts to Covered Species would be reduced to a level less than significant with consistency and participation with the MSHCP (including a per acre fee payment).

The proposed Project would impact MSHCP riparian/riverine areas, as well as waters subject to the jurisdictions of the Santa Ana Regional Water Quality Control Board (Regional Board) and the California Department of Fish and Wildlife (CDFW). Impacts to MSHCP riparian/riverine resources would require a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis to determine the amount and type of mitigation needed under the Plan to address the proposed impacts.

The proposed Project would be consistent with all applicable MSHCP policies, 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). Through compliance with the MSHCP, the Plan would fully mitigate for potentially significant impacts under CEQA that would occur by the Project, including potential cumulative impacts.

G. Individuals Conducting Fieldwork:

Stephanie Cashin, Jillian Stephens, Jeff Ahrens, Zack West, Chris Waterston, David Smith, April Nakagawa, Kevin Livergood, Dave Moskovitz, and Phillippe Vergne (Envira, Inc.)

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TABLES

EXHIBITS

APPENDICES

1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general and focused biological surveys for the approximately 65.4-acre Potrero Logistics Center Warehouse Project (the Project) located in the City of Beaumont, 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 approximately 65.4-acre Project site, all methods employed regarding the general 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 and MSHCP 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) assessment for the presence of wildlife migration and colonial nursery sites; (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) jurisdiction pursuant to Section 404 of the Clean Water Act, State Water Quality Control Board pursuant to Section 401 of the Clean Water Act, and CDFW jurisdiction 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 biological studies and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

1.2 Project Location

The Project site comprises approximately 65.4 acres in the City of City of Beaumont, Riverside County, California [Exhibit 1 – Regional Map] and is located within Section 7 of Township 3 South, Range 1 West, of the U.S. Geological Survey (USGS) El Casco, California 7.5" topographic quadrangle map (dated 1967 and photorevised in 2015) [Exhibit 2 – Vicinity Map]. The Project site is generally bordered by Potrero Boulevard to the east, State Route 60 (SR-60) to the north, an active construction site to the west, and undeveloped open space to the south.

1.3 Project Description

The proposed Project, commonly referred to as the "Potrero Logistics Center Warehouse Project", includes the construction and operation of an approximately 577,920-square foot "high-cube" industrial warehouse facility with associated parking and detention basin.

For this report, the term *Project site* is defined as the 65.43 acres of land controlled by the applicant as identified on Exhibit 3. The term *Project footprint* is defined as the land proposed for direct impact by the Project, including both on-site and off-site impact areas, totaling 37.02 acres. All impacts are assumed permanent, unless explicitly stated as temporary. The term *Avoided* refers to land not proposed for development, thus occurring outside of the Project footprint but within the Project site [Exhibit 3].

The entire Project site was delineated and mapped according to vegetation community; however, it is important to note that biological survey efforts, including focused plant and animal surveys, were concentrated on areas within the Project footprint. These areas, as identified on Exhibit 3, are proposed for direct impact by the Project whereas the southern portion of the Project site is avoided and will therefore not be impacted by the proposed Project.

1.4 Relationship of the Project Site to the MSHCP

1.4.1 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.

1.4.2 Relationship of the Project Site to the MSHCP

The Project site is located within The Pass Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area (Criteria Cells) or the MSHCP Criteria Area Plant Species Survey Area (CAPSSA). The Project site is also not located within the MSHCP Amphibian Survey Area, MSHCP suitable habitat areas for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), or Core and Linkage areas. The southern half of the Project site is located within the MSHCP Mammal Survey area, while the entirety of the Project site is located within the MSHCP Burrowing Owl Survey Area and the Narrow Endemic Plant Species Survey Area (NEPSSA) [Exhibit 4 – MSHCP Overlay Map]. Specifically, the site occurs in NEPSSA Survey Area 8. As such, pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*).

Several drainage features that are considered MSHCP riparian/riverine resources are present within the Project site, which are subject to MSHCP riparian/riverine policies (Volume I, Section 6.1.2) that address the treatment of riparian/riverine areas or vernal pools, and survey requirements for riparian birds, including least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), as well as listed fairy shrimp, as appropriate based on the potential or lack of potential for these areas to support riparian/riverine species.

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:

- Delineation of aquatic resources (including wetlands and riparian habitat) potentially subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), CDFW, and MSHCP riparian/riverine areas and vernal pools policy;
- Performance of vegetation mapping for the Project site;
- 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 and the MSHCP;
- Performance of focused surveys for rare and narrow endemic plants;
- Performance of focused surveys for burrowing owl; and
- Ongoing performance of focused surveys for fairy shrimp.

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDB (CDFW 2020), CNPS 8th edition online inventory (CNPS 2020), Natural Resource Conservation Service soil data (NRCS 2020), MSHCP species and habitat maps and sensitive soil maps (Dudek 2003), 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. 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	2020 and 2021 Survey Dates	Biologist(s)
General Biological Survey	11/17/20	JS, JA
Jurisdictional Delineation and Evaluation of MSHCP Riparian/Riverine Areas	12/9/20	ZW, CW
Evaluation of MSHCP Vernal Pools and Fairy Shrimp Habitat	11/17/20, 12/9/20, 12/10/20	JS, JA, ZW, CW, KL
Phase One Assessment for the Los Angeles Pocket Mouse	12/8/20	PV (Envira, Inc.)
Focused Plant Surveys	3/23/21, 4/14/21, 5/4/21	JS

Survey Type	2020 and 2021 Survey Dates	Biologist(s)
Focused Burrowing Owl Surveys	3/8/21, 3/23/21, 4/12/21, 5/4/21	DS, AN
Fairy Shrimp Surveys	ongoing	KL, DM, SC

SC = Stephanie Cashin JS = Jillian Stephens JA = Jeff Ahrens ZW = Zack West
CW = Chris Waterston DS = David Smith AN = April Nakagawa KL = Kevin Livergood
DM = Dave Moskovitz PV = Philippe Vergne (Envira, Inc.)

Individual plants and wildlife species were evaluated in this report based on their "special-status." For 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); and/or
- CNPS Rare Plant Inventory Rank 1A, 1B, 2A, 2B, 3, or 4.

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/riverine habitat.

2.1 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 survey; (4) vegetation mapping according to Holland (1986); and (5) habitat assessments and focused surveys for special-status plants (including those with MSHCP requirements).

2.1.1 Literature Search

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

- California Native Plant Society, Rare Plant Program. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) (CNPS 2021); and
- CNDDB for the USGS 7.5' quadrangles: El Casco, California and surrounding quadrangles (CDFW 2021).

2.1.2 Vegetation Mapping

Vegetation communities within the Project site were mapped according to Holland (1986) when possible. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph.

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

A literature search was conducted to obtain a list of special-status plants with the potential to occur within the Project site. The 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 (2021) and the MSHCP (Dudek 2003).

The Project is located within NEPSSA Survey Area 8. Pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Yucaipa onion (*Allium marvinii*) and many-stemmed dudleya (*Dudleya multicaulis*).

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.

2.1.4 Botanical Surveys

GLA biologist Jillian Stephens visited the site on November 17, 2020 and March 23, April 14, and May 4, 2021 to conduct general and focused plant 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).

2.1.5 Botanical Survey Limitations

The rainy season from November of 2020 through April of 2021 resulted in exceptionally low precipitation for the entire greater Southern California region. This data indicates that the 2020-2021 rainy season was a drought year, and as such, some special-status plant species, as well as

plant species common to the entire region, may not have had enough resources to produce the vegetative matter, flowers, and/or fruit required to make species identifications.

As such, GLA biologists made substantial efforts to visit reference populations for target species when possible, and also utilized resources such as local herbaria and the California Consortia of Herbaria to determine the annual occurrences of plant species throughout the region. This tracking of local flora phenology and occurrences allowed GLA biologists to make confident decisions on the confirmed absence of target plant species not detected during this drought condition.

2.2 Wildlife Resources

Wildlife species were evaluated and detected during the 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 visits. 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 survey(s), habitat assessment(s), and/or focused surveys for special-status animals are included below.

2.2.1 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.

2.2.2 Special-Status Animal Species Evaluated for the Project Site

A literature search was conducted to obtain a list of special-status wildlife species with the potential to occur within the Project site. Species were evaluated based on three factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in vicinity of the Project site, (2) species survey areas as identified by the MSHCP for the Project site; and 3) any other special-status animals that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs on the Project site.

2.2.3 Habitat Assessment for Special-Status Animal Species

GLA biologists Jeff Ahrens and Jillian Stephens conducted habitat assessments for special-status animal species on November 17, 2020. 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.

2.2.4 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 biologists April Nakagawa and David Smith conducted focused surveys for the burrowing owl for all suitable habitat areas within the Project site. 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 be conducted on separate dates between March 1 and August 31. Within areas of suitable habitat, the MSHCP also requires a focused burrow survey to map all potentially suitable burrows. The focused burrow survey was conducted on March 8, 2021. Focused burrowing owl surveys were conducted on March 8, March 23, April 12, and May 4, 2021. The burrowing owl survey visits need to be conducted from one hour prior to sunrise to two hours after sunrise or two hours before sunset to one hour after sunset.

Both the burrow and owl surveys were conducted during weather that was conducive to observing owls outside their burrows and detecting burrowing owl sign and not during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. Additionally, all work was performed more than 5 days after a rain event. Refer to Table 2-1 in Section 2.0 for survey condition details.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 7 identifies the burrowing owl survey areas at the Project site. Transects were spaced between 22 feet and 65 feet 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 320 feet 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. Transect locations are provided on Exhibit 7, along with the 500-foot buffer area. 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	Biologists	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
March 8, 2021	DS	0710/0930	46/48	0-1	Cloudy
March 23, 2021	AN	0600/0900	40/42	6-7	Partly cloudy
April 12, 2021	AN	0600/0830	51/54	7-10	Cloudy
May 4, 2021	AN	0545/0810	53/70	0-3	Clear

DS = David Smith AN = April Nakagawa

Fairy Shrimp

GLA biologist Kevin Livergood conducted a site assessment for habitat suitable for the presence of listed fairy shrimp species on December 10, 2020. Wet season sampling commenced on December 30, 2020 after a notification was submitted to the USFWS on December 16, 2020. GLA biologist Kevin Livergood (TE-172638-2) conducted the wet season survey with the objective of determining the presence or absence of federally-listed Riverside fairy shrimp (*Streptocephalus woottoni*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), and vernal pool fairy shrimp (*Branchinecta lynchi*). As a result of below-average rainfall, the identified features did not exhibit ponding suitable for fairy shrimp during the 2020-2021 wet season. Due to the lack of suitable ponding, wet season surveys were discontinued and results were inconclusive. Dry season soil collection is currently ongoing, and additional wet season sampling is scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology.

Sampling was and will be conducted per the USFWS survey protocol entitled *Survey Guidelines for the Listed Large Branchiopods* (dated November 13, 2017). Voucher specimens of listed vernal pool branchiopods collected during the survey were accessioned as indicated in the survey guidelines.

2.3 Jurisdictional Waters

The Project was delineated to identify the limits of jurisdictional waters, including waters of the U.S. (including wetlands) subject to the jurisdiction of the Corps and Regional Board, and waters of the State (including riparian vegetation) subject to the jurisdiction of CDFW. 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

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

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, wetlands (if applicable), and CDFW jurisdiction were recorded using GPS technology and/or on copies of the aerial photography. Other data were recorded onto the appropriate datasheets.

2.4 MSHCP 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 MSHCP 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 MSHCP 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.

GLA surveyed the Project site for riparian/riverine areas and vernal pool/seasonal pool habitat, including features with the potential to support listed fairy shrimp. To assess for vernal/seasonal pools (including fairy shrimp habitat), GLA biologists evaluated the topography of the site, including whether the site contained depressional features/topography with the potential to

[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.

become inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding. The site was evaluated on multiple occasions during the 2020-2021 rainfall season, including November 17, December 9, and December 10, 2020 in which several seasonal depressions were identified within the Project site; however, based on the low rainfall nature of the 2020-2021 wet season, it is currently unclear whether these depressional features support the hydrology required to support listed fairy shrimp species. Additional wet season sampling is scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology.

3.0 REGULATORY SETTING

The proposed Project is subject to state and federal laws and 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; special-status species which are not listed as threatened or endangered by the state or federal governments; and special-status vegetation communities.

3.1 Endangered Species Acts

A. 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.

B. 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.

C. State and Federal Take Authorizations

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.

D. 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 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 pursuant to Section 10(a) of the FESA.

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); animals 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).

For projects that have a federal nexus such as through federal Clean Water Act Section 404 permitting, take authorization for federally listed covered species would occur under Section 7 (not Section 10) of FESA and that USFWS would provide a MSHCP consistency review of the proposed project, resulting in a biological opinion. The biological opinion would require no more compensation than what is required to be consistent with the MSHCP.

3.2 California Environmental Quality Act

A. 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 CNPS Ranked 3 or 4.

B. 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)

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 Jurisdictional Waters

3.3.1 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), pursuant to the *Navigable Waters Protection Rule*[5] (NWPR), as:

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

(1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
(2) Tributaries;
(3) Lakes and ponds, and impoundments of jurisdictional waters; and
(4) Adjacent wetlands.

(b) Non-jurisdictional waters. The following are not ''waters of the United States'':

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

[5] U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

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

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

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

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

* 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 Arid West 2016 Regional Wetland Plant List[6],[7]);
* 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 Wetland 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.

3.3.2 Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[8] and waters of the

[6] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.

[7] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

[8] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of

State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

1. State Wetland Definition

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

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[9] *and*
3. *Artificial wetlands*[10] *that meet any of the following criteria:*
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or

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

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

[10] Artificial wetlands are wetlands that result from human activity.

d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[11]

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

3.3.3 California Department of Fish and Wildlife

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

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

[11] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board’s authority to issue or waive waste discharge requirements or take other actions as applicable.

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

4.0 RESULTS

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

Topography within the 65.43-acre Project site consists of gently sloping hills with elevations ranging from approximately 2,365 to 2,450 feet above mean sea level (AMSL). Historical use of the site is unclear, but it was likely grazed, as is evident from the dominant non-native grassland community and typical land use in this region. Remnant patches of native scrub habitat occur throughout the site; however, much of the site is disturbed via authorized construction activities and unauthorized recreational motorized vehicle use. The Project site is conceptually divided into northern and southern segments by an active construction project which is currently developing a segment of West 4th Street through the center of the Project site. This construction activity is associated with the adjacent ongoing development project occurring immediately west of the site and is not a part of this Project or being constructed by the Project proponent.

Two blue-line drainages are mapped with the Project site. An ephemeral, incised drainage, which receives stormwater flows from Potrero Boulevard occurs in the in the northern portion of the site; and Cooper's Creek, a perennial stream supporting a mature riparian vegetation community occurs in the southern portion of the site. The two drainages converge downstream of the western Project boundary.

Although the entire Project site was delineated and mapped according to vegetation community, it is important to note that biological survey efforts, including focused plant and animal surveys, were concentrated on areas within the Project footprint. These areas, as identified on Exhibit 3, are proposed for direct impact by the Project, whereas the southern portion of the Project site is avoided and will therefore not be impacted by the proposed Project.

The National Cooperative Soil Survey (NCSS) has identified the following soil types as occurring (currently or historically) within the Project site [Exhibit 10]: Badland; Greenfield

sandy loam, 2 to 8 percent slopes, eroded; Placentia fine sandy loam, 5 to 15 percent slopes, eroded; Ramona Sandy Loam, 2 to 5 percent slopes, eroded; Riverwash; San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded; San Emigdio loam, 2 to 8 percent slopes; and Terrace escarpments.

4.2 Vegetation Mapping

The Project site supports the following vegetation community/land cover types: Non-Native Grassland, Riversidean Sage Scrub, Scrub Oak Chaparral, Willow Riparian Forest, and Disturbed/Developed. Table 4-1 provides a summary of the vegetation community/land cover types and their corresponding acreage. Descriptions of each follow the table. A Vegetation Map is included as Exhibit 5. Photographs depicting the Project site are shown in Exhibit 9.

Table 4-1. Summary of Vegetation Community/Land Cover for the Project Site

VEGETATION COMMUNITY/LAND COVER	PROJECT SITE (acres)
Non-Native Grassland	26.78
Riversidean Sage Scrub	6.23
Scrub Oak Chaparral	7.05
Willow Riparian Forest	6.12
Disturbed/Developed	19.26
Total	**65.43**

Non-Native Grassland
The Project site supports 26.78 acres of non-native grassland. This plant community covers the majority of the Project site, as well as adjacent undeveloped lands to the east and west. The non-native grassland areas do not appear to be routinely disked or mowed at this time; however, a mosaic of unauthorized recreational off-roading trails is interspersed throughout the non-native grassland, indicating a level of routine disturbance throughout the habitat. The non-native grassland is dominated by invasive grass species including ripgut brome (*Bromus diandrus*), slim oat (*Avena barbata*), and red brome (*Bromus rubens*). Other commonly occurring species include common fiddleneck (*Amsinckia intermedia*), Palmer goldenweed (*Ericameria palmeri*), doveweed (*Croton setiger*), and annual bur-sage (*Ambrosia acanthicarpa*).

Riversidean Sage Scrub
The Project site supports 6.23 acres of Riversidean sage scrub scattered throughout the site in multiple, disjunct patches. These areas are primarily dominated with Mojave Desert California buckwheat (*Eriogonum fasciculatum* var. *polifolium*); however, other commonly occurring species include California sagebrush (*Artemisia californica*), chamise (*Adenostoma fasciculatum*), and white sage (*Salvia apiana*).

Scrub Oak Chaparral
The Project site supports 7.05 acres of scrub oak chaparral scattered throughout the site in multiple, disjunct patches. The canopy is primarily dominated with small, shrubby scrub oaks (*Quercus berberidifolia*), with redberry (*Rhamnus crocea*), sugar bush (*Rhus ovata*), fragrant

sumac (*Rhus aromatica*) and *Ceanothus* sp. also commonly occurring throughout this plant community. The understory is dominated with ripgut brome, common phacelia (*Phacelia distans*), miner's lettuce (*Claytonia parviflora*), and goose grass (*Galium aparine*).

Willow Riparian Forest
The Project site supports 6.12 acres of willow riparian forest associated with Cooper's Creek, a perennial stream which traverses the southern portion of the Project site. The tree canopy is primarily dominated with black willow (*Salix gooddingii*), red willow (*Salix laevigata*), Southern California black walnut (*Juglans californica*), Fremont cottonwood (*Populus fremonti*), and blue elderberry (*Sambucus nigra* ssp. *caerulea*). The riparian understory is comprised of mule fat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica*), Southern California grape (*Vitis girdiana*), and cattail (*Typha* sp.).

Disturbed/Developed
The Project site supports 19.26 acres of disturbed and developed areas scattered throughout. These areas consist of unpaved trails established by unauthorized recreational motorized vehicles, active construction associated with the development of West 4th Street, and multiple associated equipment staging areas. The disturbed and developed areas within the Project site are generally devoid of vegetation.

4.3 Special-Status Vegetation Communities

The CNDDB identifies the following ten special-status vegetation communities for the El Casco, California and surrounding quadrangle maps: Canyon Live Oak Ravine Forest, Desert Fan Palm Oasis Woodland, Riversidean Alluvial Fan Sage Scrub, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Mixed Riparian Forest, Southern Riparian Forest, Southern Riparian Scrub, Southern Sycamore Alder Riparian Woodland, and Southern Willow Scrub.

As identified on Exhibit 5, the Project site contains Willow Riparian Forest within the avoided portion, south of the Project footprint, in association with Cooper's Creek. This community constitutes a special-status vegetation type.

4.4 Special-Status Plants

Table 4-2 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, 2) applicable MSHCP survey areas, and 3) 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 4-2. Special-Status Plants Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Potential for Occurrence
Borrego milk-vetch *Astragalus lentiginosus* var. *borreganus*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Sandy soils in Mojavean desert scrub and Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
California satintail *Imperata brevifolia*	Federal: None State: None CNPS: Rank 2B.1 MSHCP: None	Mesic soils in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), and riparian scrub.	Does not occur within the Project footprint due to lack of suitable habitat and soils.
California screw moss *Tortula californica*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Sandy soil in chenopod scrub, and valley and foothill grassland.	Does not occur due to lack of suitable habitat.
Chaparral sand verbena *Abronia villosa* var. *aurita*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Sandy soils in chaparral, coastal sage scrub.	Not expected to occur.
Coachella Valley milk-vetch *Astragalus lentiginosus* var. *coachellae*	Federal: FE State: None CNPS: Rank 1B.2 MSHCP: None	Desert dunes, sandy Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
Colorado Desert larkspur *Delphinium parishii* ssp. *subglobosum*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Playas, vernal pools, marshes and swamps (coastal salt).	Does not occur due to lack of suitable habitat.
Crowned muilla *Muilla coronata*	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland	Does not occur due to lack of suitable habitat.
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP (d)	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Does not occur due to lack of suitable habitat and soils.
Davidson's stonecrop *Sedum niveum*	Federal: None State: None CNPS: Rank 4.2 MSHCP: Not covered	Rocky soils in lower and upper montane coniferous forest, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.
Duran's rush *Juncus duranii*	Federal: None State: None CNPS: Rank 4.3 MSHCP: Not covered	Mesic soils in lower and upper montane coniferous forests, meadows and seeps.	Does not occur due to lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Hall's monardella *Monardella macrantha* ssp. *hallii*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: MSHCP	Occurs on dry slopes and ridges within openings in broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, and valley and foothill grassland.	Does not occur due to lack of suitable habitat.
Heart-leaved pitcher sage *Lepechinia cardiophylla*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(d)	Closed-cone coniferous forest, chaparral, and cismontane woodland.	Does not occur due to lack of suitable habitat.
Heckard's paintbrush *Castilleja montigena*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest	Does not occur due to lack of suitable habitat.
Jaeger's (bush) milk-vetch *Astragalus pachypus* var. *jaegeri*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP	Sandy or rocky soils in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	Not expected to occur.
Johnston's bedstraw *Galium johnstonii*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Chaparral, lower montane coniferous forest, pinyon and juniper woodland, riparian woodland.	Does not occur due to lack of suitable habitat.
Johnston's monkeyflower *Diplacus (Mimulus) johnstonii*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Lower montane coniferous forest (scree, disturbed areas, rocky or gravelly soil, roadsides)	Does not occur due to lack of suitable habitat.
Laguna Mountains jewelflower *Streptanthus bernardinus*	Federal: None State: None CNPS: Rank 4.3 MSHCP: Not covered	Chaparral and lower montane coniferous forest.	Does not occur due to lack of suitable habitat.
Lemon lily *Lilium parryi*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP (f)	Mesic soils in lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest.	Does not occur within the Project footprint due to lack of suitable habitat.
Little mousetail *Myosurus minimus* ssp. *apus*	Federal: None State: None CNPS: Rank 3.1 MSHCP: MSHCP (d)	Valley and foothill grassland, vernal pools (alkaline soils).	Does not occur due to lack of suitable habitat and soils.
Little purple monkeyflower *Erythranthe (Mimulus) purpurea*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Meadows and seeps, pebble (pavement) plain, and upper montane coniferous forest.	Does not occur due to lack of suitable habitat.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Does not occur due to lack of suitable habitat.
Many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP (b)	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Confirmed absent during focused plant surveys.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Marsh sandwort *Arenaria paludicola*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: None	Bogs and fens, freshwater marshes and swamps.	Does not occur due to lack of suitable habitat.
Mesa horkelia *Horkelia cuneata* var. *puberula*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub.	Does not occur due to lack of suitable habitat.
Mojave tarplant *Deinandra mohavensis*	Federal: None State: SE CNPS: Rank 1B.3 MSHCP: MSHCP (e)	Chaparral (mesic soils) and riparian scrub.	Does not occur within the Project footprint due to lack of suitable habitat.
Mount Pinos larkspur *Delphinium parryi* ssp. *purpureum*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Chaparral, Mojavean desert scrub, pinyon and juniper woodland.	Does not occur due to lack of suitable habitat.
Mud nama *Nama stenocarpum*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: MSHCP (d)	Marshes and swamps	Does not occur due to lack of suitable habitat.
Narrow-leaf sandpaper-plant *Petalonyx linearis*	Federal: None State: None CNPS: Rank 2B.3 MSHCP: None	Sandy or rocky canyons, Mojavean desert scrub, and Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
Narrow-petaled rein orchid *Piperia leptopetala*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest.	Does not occur due to lack of suitable habitat.
Nevin's barberry *Berberis nevinii*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub.	Confirmed absent. This species is a perennial shrub and would have been detected if present.
Ocellated humboldt lily *Lilium humboldtii* ssp. *ocellatum*	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP (f)	Chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, riparian woodland. Occurring in openings.	Does not occur within the Project footprint due to lack of suitable habitat.
Palmer's mariposa lily *Calochortus palmeri* var. *palmeri*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Mesic soils in chaparral, lower montane coniferous forest, and meadows and seeps.	Does not occur due to lack of suitable habitat.
Paniculate tarplant *Deinandra paniculata*	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Usually in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	Confirmed absent during focused plant surveys.
Parish's alumroot *Heuchera parishii*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: Not covered	Rocky, sometimes carbonate soils in alpine boulder and rock field, lower and upper montane coniferous forest, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Chenopod scrub, playas, vernal pools.	Does not occur due to lack of suitable habitat.
Parish's bush-mallow *Malacothamnus parishii*	Federal: None State: None CNPS: Rank 1A MSHCP: None	Chaparral and coastal scrub	Species presumed extinct.
Parish's checkerbloom *Sidalcea hickmanii* ssp. *parishii*	Federal: None State: Rare CNPS: Rank 1B.2 MSHCP: None	Chaparral, cismontane woodland, and lower montane coniferous forest.	Does not occur due to lack of suitable habitat.
Parish's gooseberry *Ribes divaricatum* var. *parishii*	Federal: None State: None CNPS: Rank 1A MSHCP: None	Riparian woodland	Species presumed extinct[12].
Parish's rupertia *Rupertia rigida*	Federal: None State: None CNPS: Rank 4.3 MSHCP: Not covered	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble (pavement) plain, valley and foohill grassland.	Does not occur due to lack of suitable habitat.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Confirmed present.
Peninsular spineflower *Chorizanthe leptotheca*	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Alluvial fan, granitic. Chaparral, coastal scrub, lower montane coniferous forest.	Does not occur due to lack of suitable habitat and soils.
Peruvian dodder *Cuscuta obtusiflora var. glandulosa*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Marshes and swamps (freshwater). Annual vine (parasitic). Blooming period July - October.	Does not occur due to lack of suitable habitat.
Plummer's mariposa lily *Calochortus plummerae*	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland.	Confirmed absent during focused plant surveys.
Pygmy hulsea *Hulsea vestita* ssp. *pygmaea*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Granitic, gravelly soils in alpine boulder and rock field, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.

[12] Calflora: Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2021. Berkeley, California: The Calflora Database [a non-profit organization]. Available: https://www.calflora.org/

Species Name	Status	Habitat Requirements	Potential for Occurrence
Robinson's pepper grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CNPS: Rank 4.3 MSHCP: Not covered	Chaparral, coastal sage scrub.	Confirmed absent during focused plant surveys.
Rock sandwort *Arenaria lanuginosa var. saxosa*	Federal: None State: None CNPS: Rank 2B.3 MSHCP: None	Mesic and sandy soils in subalpine coniferous forest and upper montane coniferous forest.	Does not occur due to lack of suitable habitat.
Rock-loving oxytrope *Oxytropis oreophila* var. *oreophila*	Federal: None State: None CNPS: Rank 2B.3 MSHCP: None	Gravelly or rocky soils in alpine boulder and rock field, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.
Salt marsh bird's-beak *Chloropyron maritimum* ssp. *maritimum*	Federal: FE State: SE CNPS: Rank 1B.2 MSHCP: None	Coastal dune, coastal salt marshes and swamps.	Does not occur due to lack of suitable habitat.
Salt Spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: Not covered	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	Does not occur due to lack of suitable habitat and soils.
San Bernardino aster *Symphotrichum defoliatum*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Does not occur due to lack of suitable habitat.
San Bernardino gilia *Gilia leptantha* ssp. *leptantha*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Lower montane coniferous forest (sandy or gravelly).	Does not occur due to lack of suitable habitat.
San Bernardino grass-of Parnassus *Parnassia cirrata* var. *cirrata*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Mesic, streamsides, sometimes calcareous. Lower montane coniferous forest, meadows and seeps, upper montane coniferous forest.	Does not occur due to lack of suitable habitat.
San Bernardino Mountains owl's-clover *Castilleja lasiorhyncha*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Mesic soils in chaparral, meadows and seeps, pebble (pavement) plain, riparian woodland, and upper montane coniferous forest.	Does not occur within the Project footprint due to lack of suitable habitat.
San Gabriel ragwort *Senecio astephanus*	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Rocky slopes, coastal bluff scrub, chaparral.	Does not occur due to lack of suitable habitat.
San Jacinto Mountains bedstraw *Galium angustifolium* ssp. *jacinticum*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: MSHCP (b)	Lower montane coniferous forest.	Does not occur due to lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
San Jacinto Valley crownscale *Atriplex coronata* var. *notatior*	Federal: FE State: None CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Does not occur due to lack of suitable habitat.
Scalloped moonwort *Botrychium crenulatum*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Bogs and fens, lower and upper montane coniferous forest, meadows and seeps, marshes and swamps (freshwater).	Does not occur due to lack of suitable habitat.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Does not occur due to lack of suitable habitat.
Small-flowered morning-glory *Convolvulus simulans*	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Chaparral (openings), coastal sage scrub, valley and foothill grassland. Occurring on clay soils and serpentinite seeps.	Does not occur due to lack of suitable habitat.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats.	Does not occur within the Project footprint due to lack of suitable habitat and soils.
South coast saltscale *Atriplex pacifica*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas.	Does not occur due to lack of suitable habitat.
Southern alpine buckwheat *Eriogonum kennedyi* var. *alpigenum*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Granitic and gravelly soils in alpine boulder and rock field, and subalpine coniferous forest.	Does not occur due to lack of suitable habitat.
Southern California black walnut *Juglans californica*	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces.	Confirmed present in Cooper's Creek, outside of Project footprint.
Southern jewelflower *Streptanthus campestris*	Federal: None State: None CNPS: Rank 1B.3 MSHCP: Not covered	Rocky soils in chaparral, lower montane coniferous forest, and pinyon and juniper woodland.	Does not occur due to lack of suitable habitat.
Spiny-hair blazing star *Mentzelia tricuspis*	Federal: None State: None CNPS: Rank 2B.1 MSHCP: None	Sandy, gravelly, slopes, and washes. Mojavean desert scrub.	Does not occur due to lack of suitable habitat.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CNPS: Rank 1B.1 MSHCP: MSHCP (b)	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Does not occur due to lack of suitable habitat.
Thread-leaved brodiaea *Brodiaea filifolia*	Federal: FT State: SE CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	Not expected to occur.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Torrey's box-thorn *Lycium torreyi*	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Sandy, rocky, washes, streambanks, desert valleys. Mojavean desert scrub and Sonoran desert scrub.	Does not occur due to lack of suitable habitat.
Vernal barley *Hordeum intercedens*	Federal: None State: None CNPS: Rank 3.2 MSHCP: MSHCP	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	Does not occur due to lack of suitable habitat.
White rabbit-tobacco *Pseudognaphalium leucocephalum*	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Coastal sage scrub and chaparral	Confirmed absent during focused plant surveys.
White-bracted spineflower *Chorizanthe xanti* var. *leucotheca*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Sandy or gravelly soils in Mojavean desert scrub and pinyon and juniper woodland.	Does not occur due to lack of suitable habitat.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	Federal: None State: None CNPS: Rank 2B.1 MSHCP: MSHCP(b)	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Does not occur due to lack of suitable habitat.
Yucaipa onion *Allium marvinii*	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(b)	Chaparral (clay, openings).	Confirmed absent.

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)

MSHCP
MSHCP = No additional action necessary
MSHCP(a) = Surveys may be required as part of wetlands mapping
MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area
MSHCP(c) = Surveys may be required within locations shown on survey maps
MSHCP(d) = Surveys may be required within Criteria Area
MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species

MSHCP(f) = Covered species when a Memorandum of Understanding is executed with the Forest Service Land

OCCURRENCE

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
- Confirmed absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- 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 based on suitable habitat, however its presence/absence has not been confirmed.
- Confirmed present – The species was detected onsite incidentally or through focused surveys

4.4.1 Special-Status Plant Results

The following special-status plants were detected at the Project site: Parry's spineflower (*Chorizanthe parryi* var. *parryi*) and Southern California black walnut (*Juglans californica*).

It is important to note that the 2020-2021 rainy season resulted in exceptionally low precipitation for the entire greater Southern California region, and as such, some plant species may not have had enough resources to produce the vegetative matter, flowers, and/or fruit needed to identify and confirm the presence of certain species. Although plant species of multiple growth forms (i.e., annual herbs and perennial bulbiferous herbs) were observed on site, GLA biologists also made substantial efforts to visit reference populations for target species when possible and utilized resources such as local herbaria and the California Consortia of Herbaria to determine the annual occurrences of such plant species throughout the region. This tracking of local flora phenology and occurrences allowed GLA biologists to make confident decisions on the confirmed absence of specific plant species during this drought condition.

Parry's spineflower (*Chorizanthe parryi* var. *parryi*) – This species is a member of the buckwheat family (Polygonaceae) and is designated as a CNPS List 1B.1 species but is not state or federally listed. Parry's spineflower is fully covered under the MSHCP. This annual herb is known to occur in chaparral, cismontane woodland, coastal scrub, and in rocky or sandy openings in foothill valleys and grasslands from 275 to 1,220 meters (900 to 4,001 feet) AMSL. Parry's spineflower is known to occur from Los Angeles, Riverside, and San Bernardino counties and is known to bloom from April through June.

Approximately 1,500 Parry's spineflower individuals were observed in a single population at the southern boundary of the Project footprint. The population was observed in a patch of Riversidean sage scrub, as identified on Exhibit 6, during focused plant surveys conducted on April 14 and May 4, 2021. The Parry's spineflower population on site was observed in flower and fruiting.

Southern California black walnut (*Juglans californica*) – This species is a member of the walnut family (Juglandiaceae) and is designated as a CNPS List 4.2 species but is not state or federally listed. This perennial deciduous tree is known to occur in chaparral, cismontane

woodland, and coastal scrub from 50 to 900 meters (165 to 2,952 feet) AMSL. Southern California black walnut is known to occur from Santa Barbara, Ventura, Los Angeles, Riverside, San Bernardino, Orange, and San Diego counties, and is known to bloom from March through August.

Multiple Southern California black walnut individuals occur within the riparian habitat associated with Cooper's Creek, which traverses the southern portion of the Project site. These trees were observed during the habitat assessment on November 17, 2020 and during the jurisdictional delineation on December 9, 2020. Individual trees were not mapped as part of the focused plant survey effort since this entire portion of the Project site will be avoided by the proposed Project, and as noted above, biological survey efforts were concentrated on the proposed Project footprint.

In addition, the Project site occurs within MSHCP NEPSSA designated survey area 8; therefore, the following target species were evaluated: many-stemmed dudleya and Yucaipa onion. Although these species are not fully covered by the MSHCP, no impacts to either species will result from the Project (see discussion below); therefore, there are no Project-related impacts under CEQA.

Many-stemmed dudleya (*Dudleya multicaulis*) – This species is a member of the stonecrop family (Crassulaceae) and is designated as a CNPS List 1B.2 species but is not a federal or state listed species. This perennial herb is known to occur in chaparral, coastal scrub, and valley and foothill grasslands. It is often associated with clay soils. Many-stemmed dudleya is known to occur from Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties from 15 to 790 meters (50 to 2,590 feet) AMSL. This species is known to bloom from April through July.

Although many-stemmed dudleya was determined to have low potential to occur within the Project site prior to conducting focused surveys, this species was confirmed absent during focused rare plant surveys performed by GLA in spring of 2021. Multiple reference sites of known populations of many-stemmed dudleya were visited during spring of 2021 at which time this species was observed in all phenology forms (e.g., vegetative, blooming, and fruiting) and observed supporting stable population numbers. As such, despite the low rainfall year, it has been determined that this species is absent from the Project site.

Yucaipa onion (*Allium marvinii*) – This species is a member of the lily family (Liliaceae) and is designated as a CNPS List 1B.1 species but is not a state or federally listed species. This perennial herb is known to occur in clay openings within chaparral from 760 to 1,065 meters (2,492 to 3,493 feet) AMSL. Yucaipa onion is known to occur from the Beaumont and Yucaipa areas of Riverside County and is known to bloom from April through May.

Yucaipa onion was determined to have very low potential to occur within the Project site prior to conducting focused surveys, as soils did not exhibit strong clay characteristics and elevation onsite occurs just outside the species' indicated range. A reference site for Yucaipa onion was not visited by GLA biologists; however, the University of California, Irvine Herbarium

vouchered a specimen of Yucaipa onion blooming in May of 2021[13]. Due to the species having very low potential to occur on site, as well as the species having a successful blooming year despite regional drought conditions, it has been determined that Yucaipa onion is absent from the Project site.

Other special-status plant species determined to have a potential to occur within the Project footprint prior to conducting focused surveys were either confirmed absent through the focused rare plant surveys, or are not expected to occur due to very low potential combined with disturbed site conditions, as noted in Table 4-2 above.

4.5 Special-Status Animals

Table 4-3 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.

The federally and state Endangered Least Bell's vireo was detected within the Project site, within avoided riparian habitat approximately 50 to 320 feet south of the Project footprint. In addition, multiple non-listed special-status species have potential to occur within the Project site but were not detected or observed during biological surveys. Following the table, detailed discussions of those species that require further biological explanation in relation to the Project site are provided.

Table 4-3. Special-Status Animals Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Potential for Occurrence
Invertebrates			
Crotch bumble bee *Bombus crotchii*	Federal: None State: SSC MSHCP: None	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Low to moderate potential to occur within the Project site.
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: FE State: None MSHCP: MSHCP(a)	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Low potential to occur within the Project footprint.
San Diego fairy shrimp *Branchinecta sandiegonensis*	Federal: FE State: None MSHCP: None	Seasonal vernal pools.	Low potential to occur within the Project footprint.
vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None MSHCP: MSHCP(a)	Seasonal vernal pools.	Low potential to occur within the Project footprint.

[13] Biodiversity occurrence data published by: IRVC - University of California, Irvine Herbarium (Accessed through CCH2 Portal Data Portal, https://cch2.org/portal/index.php, July 2021)

Species Name	Status	Habitat Requirements	Potential for Occurrence
Fish			
Santa Ana speckled dace *Rhinichthys osculus* ssp. *3*	Federal: None State: SSC MSHCP: Not covered	Occurs in the headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temperatures of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Does not occur due to lack of suitable habitat.
Southern steelhead - southern California DPS *Oncorhynchus mykiss irideus*	Federal: FE State: None MSHCP: None	Clear, swift moving streams with gravel for spawning. Federal listing refers to populations from Santa Maria river south to southern extent of range (San Mateo Creek in San Diego county.)	Does not occur due to lack of suitable habitat.
Amphibians			
Southern mountain yellow-legged frog *Rana muscosa*	Federal: FE State: SE MSHCP: MSHCP (c)	Streams and small pools in ponderosa pine, montane hardwood-conifer, and montane riparian habitat types.	Does not occur due to lack of suitable habitat.
Western spadefoot *Spea hammondii*	Federal: None State: SSC MSHCP: MSHCP	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Low potential to occur within the Project site.
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC MSHCP: Not Covered	Occurs interior coast range and southwestern desert regions	Low potential to occur within the Project site.
California mountain kingsnake (San Bernardino population) *Lampropeltis zonata (parvirubra)*	Federal: None State: WL MSHCP: MSHCP (f)	Bigcone spruce and chaparral at lower elevations. Black oak, incense cedar, Jeffery pine, and ponderosa pine at higher elevations.	Does not occur due to lack of suitable habitat.
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC MSHCP: MSHCP	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Low to moderate potential to occur within the Project site.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	Federal: None State: SSC MSHCP: Not covered	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Low potential to occur within the Project site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Coastal whiptail *Aspidoscelis tigris stejnegeri (multiscutatus)*	Federal: None State: SSC MSHCP: MSHCP	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Low to moderate potential to occur within the Project site.
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC MSHCP: MSHCP	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Moderate potential to occur within the Project site.
Southern California legless lizard *Anniella stebbinsi*	Federal: None State: SSC MSHCP: Not Covered	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub; found in a broader range of habitats that any of the other species in the genus. Often locally abundant, specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans	Low potential to occur within the Project site.
Southern rubber boa *Charina umbratica*	Federal: None State: ST MSHCP: MSHCP (f)	Restricted to the San Bernardino and San Jacinto Mountain, in a variety of montane forest habitats. Found in vicinity of streams or wet meadows. Requires loose, moist soil for burrowing. Seeks cover in rotting logs.	Does not occur within the Project site due to a lack of suitable habitat.
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	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Moderate to high potential to occur within the avoided riparian habitat in the southern portion of the Project site.
Western pond turtle *Emys marmorata*	Federal: None State: SSC MSHCP: MSHCP	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Not expected to bask or breed on site. Low potential for dispersal through the avoided riparian habitat in the southern portion of the Project site.
Birds			
Bell's sage sparrow *Artemisiospiza belli belli*	Federal: BCC State: WL MSHCP: MSHCP	Chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains.	Moderate potential to occur within the Project site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Black swift (nesting) *Cypseloides niger*	Federal: BCC State: SSC MSHCP: MSHCP	Nests in forested areas near rivers in dark, damp areas. Forages in skies over mountainous areas and on coastal cliffs.	Does not occur within the Project site due to a lack of suitable habitat.
Burrowing owl *Athene cunicularia*	Federal: None State: SSC MSHCP: MSHCP(c)	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.	Confirmed absent during focused surveys.
Coastal cactus wren (San Diego & Orange County only) *Campylorhynchus brunneicapillus sandiegensis*	Federal: BCC State: SSC MSHCP: MSHCP	Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.	Not expected to occur within the Project site due to a trace amount of cactus on site and a general lack of suitable habitat.
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC MSHCP: MSHCP	Low elevation coastal sage scrub and coastal bluff scrub.	Low potential to occur within the Project site within the limited areas of buckwheat scrub habitat.
Ferruginous hawk (wintering) *Buteo regalis*	Federal: BCC State: WL MSHCP: MSHCP	Open, dry country, perching on trees, posts, and mounds. In California, wintering habitat consists of open terrain and grasslands of the plains and foothills.	Does not nest on site. Low potential to occur within the Project site during winter only.
Golden eagle (nesting and wintering) *Aquila chrysaetos*	Federal: None State: CFP MSHCP: MSHCP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Does not nest on site due to a lack of suitable habitat. Low potential to forage on site due to the general lack of vast open foraging habitat.
Least Bell's vireo *Vireo bellii pusillus*	Federal: FE State: SE MSHCP: MSHCP(a)	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Detected in 2019 by Jericho Systems, Inc. in the avoided riparian habitat in the southern portion of the Project site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Loggerhead shrike (nesting) *Lanius ludovicianus*	Federal: BCC State: SSC MSHCP: MSHCP	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.	Moderate to high potential to nest and forage within the Project site.
Purple martin (nesting) *Progne subis*	Federal: None State: SSC MSHCP: MSHCP	Forage over towns, cities, parks, open fields, dunes, streams, wet meadows, beaver ponds, and other open areas. Nest in woodpecker holes in mountain forests or Pacific lowlands.	Not expected to occur due to a lack of suitable habitat.
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	Federal: FE State: SE MSHCP: MSHCP(a)	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Low to moderate potential to occur within the avoided riparian habitat in the southern portion of the Project site.
Swainson's hawk (nesting) *Buteo swainsoni*	Federal: None State: ST MSHCP: MSHCP	Occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys for hunting and uses perches.	Not expected to nest within the Project site. Potential to occur for foraging only.
Tricolored blackbird (nesting colony) *Agelaius tricolor*	Federal: BCC State: CE, SSC MSHCP: MSHCP	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	Does not occur in the proposed Project footprint due to a lack of suitable habitat. Not expected to occur within the overall Project site due to the absence of suitable emergent vegetation. May forage on site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	Federal: FT, BCC State: SE MSHCP: MSHCP(a)	Dense, wide riparian woodlands with well-developed understories.	Does not occur within the proposed Project footprint due to a lack of suitable habitat. Not expected to occur in the avoided riparian habitat in the southern portion of the Project site due to a lack of cottonwood/willow dominant habitat combined with the small linear nature of the riparian habitat. In California, cuckoos generally require cottonwood/willow habitat blocks approximately 200 acres in size and rarely occur in riparian habitat less than 50 acres in size.
White-faced ibis (nesting colony) *Plegadis chihi*	Federal: None State: WL MSHCP: MSHCP	Winter foraging occurs in wet meadows, marshes, ponds, lakes, rivers, and agricultural fields. Requires extensive marshes for nesting.	Does not occur within the Project site due to a lack of suitable habitat.
White-tailed kite (nesting) *Elanus leucurus*	Federal: None State: CFP MSHCP: MSHCP	Winter foraging occurs in wet meadows, marshes, ponds, lakes, rivers, and agricultural fields. Requires extensive marshes for nesting.	Does not nest within the proposed Project footprint due to a lack of suitable habitat. Low to moderate potential to nest within the avoided riparian habitat in the southern portion of the Project site. May use the entire site for foraging.
Yellow warbler (nesting) *Setophaga petechia*	Federal: BCC State: SSC MSHCP: MSHCP	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.	Does not occur in the proposed Project footprint due to a lack of suitable habitat. Moderate to high potential to occur within the avoided riparian habitat in the southern portion of the Project site, and may forage within the Project footprint, as this species is a habitat generalist during migration.
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: SSC MSHCP: MSHCP	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur in the proposed Project footprint due to a lack of suitable habitat. Low to moderate potential to occur within the avoided riparian habitat in the southern portion of the Project site.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Yellow-headed blackbird (nesting) *Xanthocephalus xanthocephalus*	Federal: None State: SSC MSHCP: None	Breed and roost in freshwater wetlands with dense, emergent vegetation such as cattails. Often forage in fields, typically wintering in large, open agricultural areas.	Does not occur in the proposed Project footprint due to a lack of suitable habitat. Not expected to occur within the overall Project site due to the absence of suitable emergent vegetation. May forage on site.
Mammals			
American badger *Taxidea taxus*	Federal: None State: SSC MSHCP: Not covered	Most abundant in drier open stages of most scrub, forest, and herbaceous habitats, with friable soils.	Confirmed absent in a live-in habitat role. Low potential to occur within the Project site for foraging only. No burrows were detected during biological surveys.
Dulzura pocket mouse *Chaetodipus califronicus femoralis*	Federal: None State: SSC MSHCP: Not covered	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	Low to moderate potential to occur within the Project site within limited areas of suitable habitat.
Lesser long-nosed bat *Leptonycteris yerbabuenae*	Federal: FE State: None WBWG: H MSHCP: None	Thorn scrub and deciduous forest. Roosts in caves and mines.	Not expected to occur within the Project site due to a lack of suitable habitat.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: SSC MSHCP: MSHCP(c)	Fine, sandy soils in coastal sage scrub and grasslands.	A Phase 1 habitat assessment conducted by Envira, Inc. determined that suitable habitat does not occur within the Project site [Appendix C].
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: SSC MSHCP: MSHCP	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Low to moderate potential to occur within the Project site within limited areas of suitable habitat.
Pallid bat *Antrozous pallidus*	Federal: None State: SSC WBWG: H MSHCP: Not covered	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	Does not roost in the proposed Project footprint due to a lack of suitable habitat. Potential to occur within the overall Project site for foraging.
Pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: SSC WBWG: M MSHCP: Not covered	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	Not expected to occur within the Project site due to a general lack of suitable habitat.
San Bernardino flying squirrel *Glaucomys oregonensis californicus*	Federal: None State: SSC MSHCP: MSHCP (e)	Black oak or white fir dominated woodlands between 5,200 and 8,500 feet in the San Bernardino and San Jacinto Mountain ranges.	Does not occur within the Project site due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SSC MSHCP: MSHCP(c)	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Does not occur within the Project site due to a lack of suitable habitat.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: SSC MSHCP: MSHCP	Occupies a variety of habitats, but is most common among shortgrass habitats. Also occurs in sage scrub, but needs open habitats.	Low to moderate potential to occur within the Project site.
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC MSHCP: MSHCP	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Confirmed absent. No woodrat homes (middens) were observed during biological surveys.
Southern grasshopper mouse *Onychomys torridus ramona*	Federal: None State: SSC MSHCP: Not covered	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Low potential to occur within the Project site.
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST MSHCP: MSHCP	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Low potential to occur within the Project site.
Townsend's big-eared bat *Corynorhinus townsendii*	Federal: None State: SSC WBWG: H MSHCP: None	Coniferous forests and woodlands, deciduous riparian woodland, semi-desert and montane shrublands.	Not expected to occur within the Project site due to a general lack of suitable habitat.
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 roost within the Project site due to a general lack of suitable habitat. Potential to occur within the overall Project site for foraging.
Western yellow bat *Lasiurus xanthinus*	Federal: None State: SSC WBWG: H MSHCP: Not Covered	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Not expected to roost within the Project site due to a general lack of suitable habitat. Potential to occur within the overall Project site for foraging.

STATUS

Federal
FE – Federally Endangered
FT – Federally Threatened
FPT – Federally Proposed Threatened
FC – Federal Candidate
BCC – Bird of Conservation Concern

State
SE – State Endangered
ST – State Threatened
SCE – State Candidate for listing as Endangered
CFP – California Fully-Protected Species
SSC – Species of Special Concern

MSHCP
MSHCP = No additional action necessary
MSHCP(a) = Surveys may be required as part of wetlands mapping
MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area
MSHCP(c) = Surveys may be required within locations shown on survey maps
MSHCP(d) = Surveys may be required within Criteria Area
MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species
MSHCP(f) = Covered species when a Memorandum of Understanding is executed with the Forest Service Land
Not Covered = Species not adequately conserved under MSHCP
None = Species not considered for conservation coverage under MSHCP

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

OCCURRENCE

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
- Confirmed absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- 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 based on suitable habitat, however its presence/absence has not been confirmed.
- Confirmed present – The species was detected onsite incidentally or through focused surveys

4.5.1 Special-Status Wildlife Species Observed or Confirmed Absent within the Project Site

Least Bell's Vireo (*Vireo bellii pusillus*) – This bird is a state and federally listed Endangered (FE/SE) species and is a Covered Species under the MSHCP, for which additional surveys are required. The least Bell's vireo (LBV) primarily nests in riparian vegetation typically dominated by willows and mule fat but may also use a variety of shrubs, trees, and vines. The birds forage in riparian and adjoining chaparral or scrub habitat. Nests are typically built within one meter of the ground in the fork of willows, mule fat, or other understory vegetation. Cover surrounding nests is moderately open midstory with an overstory of willow, cottonwood, sycamore, or oak. The most critical structural component to LBV breeding habitat is a dense shrub layer at 2 to 10 feet above the ground surface. During the spring and fall migration, the species occupies a wider range of habitats including coastal sage scrub, riparian, and woodland habitats.

Jericho Systems, Inc. conducted a biological resources assessment in April of 2019, at which time three LBV individuals were detected calling from the willow riparian forest associated with Cooper's Creek in the southern portion of the Project site. Suitable nesting and breeding habitat for this species is limited to the willow riparian forest in the southern portion of the Project site, all of which will be avoided by the proposed Project with a buffer ranging from approximately 50 to 320 feet. Since 100 percent of the habitat that is occupied or potentially occupied by LBV

will be avoided by the proposed Project, and habitat that represents long-term conservation value for LBV will not be impacted by the proposed Project, GLA biologists did not conduct focused surveys for LBV. Regardless, a project-specific measure for avoiding work during the LBV nesting season is provided below in Section 6.

Burrowing Owl (*Athene cunicularia*) – The burrowing owl is designated as a CDFW Species of Special Concern (SSC). The burrowing owl is a covered species not adequately conserved under the MSHCP, which means that projects located within the MSHCP Burrowing Owl Survey Area may have to evaluate avoidance appropriate conservation/avoidance measures if burrowing owls are present. The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident (Haug, *et al.* 1993). They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. As a key habitat feature in Southern California, this species requires the use of rodent or other burrows for roosting and nesting cover.

As described in Section 2.2.4, the Project site occurs within the MSHCP Burrowing Owl Survey Area, and suitable habitat for the species occurs throughout the site in the ruderal and disturbed areas, including the presence of California ground squirrel (*Otospermophilus beecheyi*) burrows [Exhibit 7]. As such, focused surveys were conducted pursuant to the MSHCP in March, April, and May of 2021. GLA biologists did not observe burrowing owls or evidence of burrowing owls (e.g., cast pellets, preened feathers, or whitewash clustered at a burrow) during the focused burrowing owl surveys; therefore, the species was confirmed absent.

4.5.2 Special-Status Wildlife Species Not Observed but with a Potential to Occur at the Project Site

Crotch bumble bee (*Bombus crotchii*; SSC) has low to moderate potential to occur within the Project site within the non-native grassland and Riversidean sage scrub plant communities. This species is not covered under the MSHCP, and focused surveys were not conducted. Until November 13th, 2020 the Crotch bumblebee was a State Candidate for listing under CESA[14]. However, in a Superior Court of California ruling on November 13th, 2020 (*Almond Alliance of California vs. California Fish and Game Commission*), the court approved the petition by the plaintiff that the State of California lacks the authority to list insects under CESA. An appeal of the findings was requested by the California Fish and Game Commission; however, the Supreme Court has not yet announced whether the appeal will be heard. Therefore, for the purposes of this report at the time in which it was written, the Crotch bumblebee is considered an SSC, and not a candidate for listing under CESA.

Three listed fairy shrimp species have low potential to occur within the Project site including Riverside fairy shrimp (*Streptocephalus woottoni*; FE), San Diego fairy shrimp (*Branchinecta sandiegonensis*; FE), and vernal pool fairy shrimp (*Branchinecta lynchi*; FT). The site was evaluated on multiple occasions during the 2020-2021 rainfall season, including November 17, December 9, and December 10, 2020 in which several seasonal depressions were identified

[14] The California Fish and Game Commission voted to designate Crotch bumblebee as Candidate Endangered species on June 12, 2019. The final determination is pending.

within the Project site; however, based on the low rainfall nature of the 2020-2021 wet season, it is currently unclear whether these depressional features support the hydrology required to support listed fairy shrimp species. As noted above in Section 2.2.4, wet season fairy shrimp surveys were initiated on December 30, 2020, but surveys were but were discontinued and results were inconclusive due to a lack of rainfall throughout the season. Dry season soil collection is currently ongoing, and additional wet season sampling is scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology.

Western spadefoot (*Spea hammondii*; SSC) has low potential to occur within the Project site as several small, ponded features were identified during the habitat assessment in November of 2020. This species is covered under the MSHCP without additional survey or conservation requirements.

Six special-status reptiles have low to moderate potential to occur within the Project site: California glossy snake (*Arizona elegans occidentalis*; SSC), coast horned lizard (*Phrynosoma blainvillii*; SSC), coast patch-nosed snake (*Salvadora hexalepis virgultea*; SSC), coastal whiptail (*Aspidoscelis tigris stejnegeri*; SSC), Southern California legless lizard (*Anniella stebbinsi*; SSC), and red-diamond rattlesnake (*Crotalus ruber*; SSC). None of these species are state or federally listed but all six are designated as CDFW Species of Special Concern. The Project site provides suitable habitat for each of these species; however, they were not observed during biological surveys. Three of the above listed species are covered under the MSHCP without additional survey or conservation requirements: coast horned lizard, coastal whiptail, and red-diamond rattlesnake.

Bell's sage sparrow (*Artemisiospiza belli belli*), a federal Bird of Conservation Concern, has moderate potential to occur within the Project site for nesting and foraging. This species is covered under the MSHCP without additional survey or conservation requirements.

The California gnatcatcher (*Polioptila californica californica*; CAGN; FT/SSC) has a low potential to occur within the Project site for nesting and foraging in the limited areas of Riversidean sage scrub. CAGN is a Covered Species under the MSHCP without additional survey or conservation requirements, as the Project site is not located within the Criteria Area.

There is low potential for the ferruginous hawk (*Buteo regalis*), a federal Bird of Conservation Concern, to forage within the Project site during wintering; however, the Project site is not located within the breeding range of this species. The ferruginous hawk is a Covered Species under the MSHCP without additional survey or conservation requirements.

The loggerhead shrike (*Lanius ludovicianus*; SSC) has moderate to high potential to occur on site for nesting and foraging within the non-native grassland areas, as well as the ecotones between the grassland and shrub/chaparral communities. This species is covered under the MSHCP without additional survey or conservation requirements.

The American badger (*Taxidea taxus*; SSC), has low potential to forage within the Project site. Although mammal burrows were identified on the Project site, none were large enough and did

not have the distinguishing characteristics to be excavated by badgers. The American badger is not covered or adequately conserved under the MSHCP.

The Dulzura pocket mouse (*Chaetodipus californicus femoralis*; SSC) has low to moderate potential to occur within the Project site within the non-native grassland areas, as well as the ecotones between the grassland and shrub/chaparral communities. The Dulzura pocket mouse is not adequately conserved under the MSHCP.

There is low to moderate potential for the Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*; SSC) to occur within the Project site within the non-native grassland and chaparral communities. The Northwestern San Diego pocket mouse is covered under the MSHCP without additional survey or conservation requirements.

The southern grasshopper mouse (*Onychomys torridus ramona*; SSC) has low potential to occur within the Project site as friable, sandy soils are present within limited areas of the Riversidean sage scrub vegetation community. The southern grasshopper mouse is not adequately conserved under the MSHCP.

Stephen's Kangaroo Rat (*Dipodomys stephensi*; SKR; FE) has low potential to occur within the Project site. The SKR is found almost exclusively in open grasslands or sparse shrublands with cover of less than 50 percent during the summer. The non-native grasslands that occur throughout the Project site are generally too dense and persistent for SKR, which avoid dense grasses and are more likely to inhabit areas where annual forbs disarticulate in the summer and leave open areas; however, the Project site contains marginally suitable habitat for the SKR. Therefore, there is a low potential for this species to be present. The SKR is covered under the MSHCP without additional survey or conservation requirements.

The San Diego black-tailed jackrabbit (*Lepus californicus bennettii*; SSC) has low to moderate potential to occur within the Project site. This species is covered under the MSHCP without additional survey or conservation requirements.

There is low potential for the pallid bat (*Antrozous pallidus*; SSC), western mastiff bat (*Eumops perotis californicus*; SSC), and western yellow bat (*Lasiurus xanthinus*; SSC) to forage within the Project site. In addition, roosting habitat for the pallid bat occurs within the Project site but is limited to the riparian habitat in the avoided southern portion of the Project site. These species are not adequately conserved under the MSHCP.

It is also important to note that the willow riparian forest associated with Cooper's Creek in the avoided southern portion of the Project site provides habitat, ranging from foraging and dispersal habitat through breeding habitat, for six additional special-status species, including two-striped garter snake (*Thamnophis hammondii*; SSC), western pond turtle (*Emys marmorata*; SSC), Southwestern willow flycatcher (*Empidonax traillii extimus*; FE/SE), white-tailed kite (*Elanus leucurus*; CFP), yellow warbler (*Setophaga petechia*; SSC), and yellow breasted chat (*Icteria virens*; SSC). Although these species have potential to occur within the Project site, potential habitat is limited to the willow riparian forest in the southern portion of the Project site, all of

which will be avoided by the proposed Project with a buffer ranging from approximately 50 to 320 feet.

4.5.4 Raptor Use

The Project site provides suitable foraging and breeding habitat for a number of raptor species, including special-status raptors.

Southern California holds a diversity of birds of prey (raptors), and many of these species are in decline. For most of the declining species, foraging requirements include extensive open, undisturbed, or lightly disturbed areas, especially grasslands. This type of habitat has declined severely in the region, affecting many species, but especially raptors. A few species, such as red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparverius*), are somewhat adaptable to low-level human disturbance and can be readily observed adjacent to neighborhoods and other types of development. These species still require appropriate foraging habitat and low levels of disturbance in vicinity of nesting sites.

Many of the raptors that would be expected to forage and nest within western Riverside are Covered Species under the MSHCP with the MSHCP providing the necessary conservation of both foraging and nesting habitats. Some common raptor species (e.g., American kestrel and red-tailed hawk) are not covered by the MSHCP but are expected to be conserved with implementation of the Plan due to the parallel habitat needs with those raptors covered under the Plan.

It is important to understand that the MSHCP does not provide MBTA and Fish and Game Code take for raptors covered under the Plan.

Appendix B (faunal compendium) provides a list of the wildlife detected over the course of the field studies, of which red-tailed hawk was the only raptor. The Project site provides potential nesting habitat (e.g., mature trees, shrubs) for red-tailed hawk, as well as for several special-status raptor species as mentioned in Section 4.5.2, primarily within the avoided area. The Project site also provides foraging habitat for red-tailed hawk, as well as several special-status raptor species as mentioned in Section 4.5.2, in the form of insects, spiders, lizards, snakes, small mammals, and other birds.

4.6 Nesting Birds

The Project site contains trees, shrubs, and ground cover that provide suitable habitat for nesting native birds. Mortality of native birds (including eggs) is prohibited under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.[15]

[15] 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.

4.7 Wildlife Linkages/ Corridors and Nursery Sites

Habitat linkages are areas which provide a communication between two or more other habitat areas which are often larger or superior in quality to the linkage. Such linkage sites can be quite small or constricted, but may can be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement taking potentially many generations.

Corridors are similar to linkages but provide specific opportunities for individual animals to disperse or migrate between areas, generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common requirements for corridors. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor will still function as desired.

No MSHCP Cores or Linkages are located within the Project site. The Project footprint does not represent or contribute to wildlife linkages or corridors, as it does not contain the structural topography or vegetative cover that facilitate regional wildlife movement. In addition, the Project footprint is surrounded on three sides by an active construction project, Potrero Boulevard, and the SR-60 corridor; therefore, the proposed Project footprint does not facilitate wildlife movement to/from off-site blocks of habitat suitable to support native wildlife species.

Wildlife nurseries are sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies. Nurseries can be important to both special-status species as well as commonly occurring species.

The Project site supports breeding and nesting habitat for locally common species; however, does not have the potential to support a regionally important or colonial wildlife nursery site, such as a heronry or colonial bat roost.

4.8 Critical Habitat

No proposed or designated Critical Habitat is mapped within or adjacent to the Project site.

4.9 Jurisdictional Waters

The Project site contains three features described herein as Drainage A, Drainage A-1, and Cooper's Creek. Drainage A is an ephemeral drainage that enters the northeast portion of the Project site and flows westerly across the site. Drainage A-1 is an ephemeral tributary to Drainage A that begins in the eastern portion of the site and converges with Drainage A in the central portion of the site. Drainage A is tributary to Cooper's Creek, which is a perennial creek dominated with mature riparian and wetland vegetation. Cooper's Creek flows in a general east to northwest direction through the avoided southern portion of the Project site, and is one of the major southern tributaries to San Timoteo Creek.

4.9.1 United States Army Corps of Engineers Jurisdiction

Potential Corps jurisdiction at the site totals approximately 1.22 acres, all of which consist of federal wetlands associated with Cooper's Creek. A total of 1,692 linear feet of potentially Corps jurisdictional streambed is present. The boundaries of Corps jurisdiction are depicted on Exhibit 8A.

Potential Corps jurisdiction is limited to Cooper's Creek, a perennial stream. Drainage A and Drainage A-1 are ephemeral streams that flow only in direct response to precipitation (e.g., rain). Pursuant to the *Navigable Waters Protection Rule*, ephemeral features, including ephemeral streams, swales, gullies, rills, and pools are not considered waters of the U.S. regardless of the presence or absence of an OHWM. Tributaries must satisfy the flow conditions of the definition described in 33 U.S.C. 1251 et seq. and its implementing regulations (33 CFR Part 328.3). As a result, these features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA.

4.9.2 Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction associated with the Project totals approximately 2.52 acres, of which 1.22 acres consist of State wetlands and 1.30 acres consist of non-wetland State waters. This includes 1,692 linear feet of wetland stream associated with Cooper's Creek, and 2,187 linear feet of ephemeral, non-wetland stream. The boundaries of Regional Board jurisdiction are depicted on Exhibit 8B.

Regional Board jurisdiction includes Cooper's Creek, which as stated above, is considered a potential Water of the U.S. (WoUS) and is potentially subject to Corps jurisdiction under Section 404 of the CWA. Since this feature is considered potential WoUS, it is subject to Regional Board jurisdiction under Section 401 of the CWA.

Drainages A and A-1 are characterized as ephemeral drainage features that convey surface water only in direct response to precipitation (e.g., rain) and do not meet the criteria for regulation by the Corps under Section 404 of the CWA. Since ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA, these features are also not subject to Regional Board jurisdiction pursuant to Section 401 of the CWA. However, since these features convey surface flow with the potential to support beneficial uses, they are considered to be Waters of the State (WoS) that would be regulated by the Regional Board pursuant to Section 13260 of the California Water Code (CWC)/the Porter-Cologne Act.

Table 4-4 below summarizes Regional Board jurisdictional waters associated with the Project site.

Table 4-4. Summary of Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	1.22	1.22	1,692

Drainage A	1.22	0	1.22	1,489
Drainage A-1	0.08	0	0.08	699
Total	**1.30**	**1.22**	**2.52**	**3,880**

4.9.3 CDFW Jurisdiction

CDFW jurisdiction associated with the Project totals approximately 7.68 acres and includes all areas within potential Corps and/or Regional Board jurisdiction. Of this total, 6.33 acres consist of riparian stream and 1.35 acres consist of non-riparian stream. A total of 3,880 linear feet of stream is present. This includes 1,692 linear feet of riparian stream and 2,188 linear feet of ephemeral, non-riparian stream. The boundaries of CDFW jurisdiction are depicted on Exhibit 8C.

As stated above, the Project site contains one perennial feature (Cooper's Creek) and two ephemeral drainage features (Drainage A and A-1). Each of these features exhibited flow sign with the presence of an established bed and bank. Cooper's Creek is a perennial stream system, which supports a mature riparian canopy. In addition, Drainage A supports a sporadic riparian vegetation regime, and supports more xeric riparian species, including individual blue elderberrys and scrub oaks. As such, these features are subject to CDFW jurisdiction under Section 1602 of the Fish and Game Code.

Table 4-5 below summarizes CDFW jurisdictional waters associated with the Project site.

Table 4-5. Summary of CDFW Jurisdiction

Drainage Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	6.21	6.21	1,692
Drainage A	1.23	0.12	1.35	1,489
Drainage A-1	0.12	0	0.12	699
Total	**1.35**	**6.33**	**7.68**	**3,880**

4.10 MSHCP Riparian/Riverine Areas and Vernal Pools

GLA surveyed the Project site for riparian/riverine areas and vernal pool/seasonal pool habitat, including features with the potential to support listed fairy shrimp. To assess for vernal/seasonal pools (including fairy shrimp habitat), GLA biologists evaluated the topography of the site, including whether the site contained depressional features/topography with the potential to become inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding.

Vegetation communities associated with riparian systems and vernal pools are depleted natural vegetation communities because, similar to coastal sage scrub, they have declined throughout Southern California during past decades. In addition, they support a greater variety of special-

status wildlife species than surrounding upland habitat types. Many of the species associated with riparian/riverine areas are Covered Species under the MSHCP (under Section 6.1.2 of the Plan), with additional survey requirements for these species. Thus, the MSHCP classification of riparian/riverine includes both riparian (considered depleted natural vegetation communities due to their riparian association) as well as ephemeral drainages that are natural in origin or drain to the MSHCP Conservation Area, but may lack associated riparian vegetation.

4.10.1 MSHCP Riparian/Riverine Areas

CDFW jurisdiction (inclusive of all Regional Board jurisdiction) within the Project site as described above in Section 4.9.3 would be designated as a Riparian/Riverine resource under the MSHCP; portions of which constitute riparian habitat. These areas will be addressed and mitigated under the aquatic permitting process, as well as requiring a Determination of Biologically Equivalent or Superior Preservation analysis and associated compensatory mitigation under the MSHCP. A full description of CDFW/MSHCP Riparian/Riverine jurisdictional drainage features associated with the Project site can be found in Appendix D [Jurisdictional Delineation Report]. The boundaries of CDFW jurisdiction/MSHCP Riparian/Riverine resources are depicted on Exhibit 8C.

Several individual elderberry and scrub oaks were designated as riparian habitat within Drainage A, as noted in Table 4-5 and identified on Exhibit 8C. These areas are also considered as MSHCP riparian resources; however, as these individual trees contributed to the assemblage of the surrounding vegetation communities, and were not present in such density as to represent a separate community, they were not mapped as distinct riparian vegetation communities [Exhibit 5] for the purpose of this report. The subject trees are isolated within the surrounding Riversidean sage scrub and non-native grassland communities, and do not have the potential to support Riparian Riverine (MSHCP Section 6.1.2) associated species that are typically associated with riparian habitats such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo.

4.10.2 MSHCP Vernal Pools

Habitat assessments for vernal pools and seasonal pool habitats were conducted on November 17, December 9, and December 10, 2020 in which several seasonal depressions were identified within the Project site that may potentially represent suitable habitat for listed fairy shrimp species, should the appropriate duration of ponding be supported. These depressions consist primarily of bare ground with a small percent cover of non-native grasses presumably created by human disturbance of the site, with two of the depressions consisting of road ruts. None of these features constitute MSHCP or Corps vernal pools due to a lack of hydric soils and due to the fact that no plant species associated with vernal pools were observed within these features and they did not support a predominance of hydrophytic species; however, based on the low rainfall nature of the 2020-2021 wet season, it is currently unclear whether these depressional features support the hydrology required to support listed fairy shrimp species. As noted above in Section 2.2.4, wet season fairy shrimp surveys were initiated on December 30, 2020, but surveys were but were discontinued and results were inconclusive due to a lack of rainfall throughout the season. Dry season soil collection is currently ongoing, and additional wet season sampling is

scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology.

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 offsite 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 invasive species, 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)

A. 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.

B. Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 2018 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

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

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

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

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

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

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

5.2 Impacts to Special-Status Species

Appendix G(a) of the CEQA guidelines asks if a project is likely to "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 impact one special-status plant species: Parry's spineflower. As described in Section 4.4.1, Parry's spineflower was observed in a single location at the southern boundary of the Project footprint. Approximately 1,500 individuals were identified within sandy openings of the Riversidean sage scrub plant community. Parry's spineflower is a CNPS List 1B.1 species, and direct impacts associated with the proposed Project will permanently impact this population; however, Parry's spineflower is a Covered Species under the MSHCP. Therefore, the loss of this population would potentially represent a CEQA-significant impact to this special-status plant species prior to mitigation, but this impact would be reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves this species and associated suitable habitat on a regional level.

5.2.2 Impacts to Special-Status Animals

The proposed Project will result in the loss of habitat that potentially supports the following listed species: CAGN and SKR.

The proposed Project will also result in the loss of habitat that potentially supports the following non-listed special-status species: Crotch bumble bee (SSC), western spadefoot (SSC), California glossy snake (SSC), coast horned lizard (SSC), coast patch-nosed snake (SSC), coastal whiptail (SSC), red-diamond rattlesnake (SSC), Southern California legless lizard (SSC), Bell's sage sparrow, burrowing owl (SSC), ferruginous hawk, loggerhead shrike (SSC), American badger (SSC), Dulzura pocket mouse (SSC), northwestern San Diego pocket mouse (SSC), pallid bat (SSC), San Diego black-tailed jackrabbit (SSC), southern grasshopper mouse (SSC), western mastiff bat (SSC), and western yellow bat (SSC).

Listed Species, MSHCP Covered
CAGN – The Project would remove marginally suitable habitat for CAGN (FT/SSC) within the limited areas of Riversidean sage scrub. This loss of habitat would potentially represent a CEQA-significant impact prior to mitigation, but this impact would be reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves this species and associated suitable habitat on a regional level.

SKR – The project would remove marginally suitable habitat for SKR (FE/ST) within the non-native grassland vegetation community. This loss of potentially occupied habitat by SKR would potentially represent a CEQA-significant impact prior to mitigation, but this impact would be reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves this species and associated suitable habitat on a regional level.

Non-Listed Species, MSHCP Covered
In addition to the listed species discussed above, the proposed Project will result in a loss of habitat that has potential to support the following non-listed, special-status species covered by the MSHCP: western spadefoot (SSC), coast horned lizard (SSC), coastal whiptail (SSC), red-diamond rattlesnake (SSC), Bell's sage sparrow, burrowing owl (SSC), ferruginous hawk , loggerhead shrike (SSC), northwestern San Diego pocket mouse (SSC), and San Diego black-tailed jackrabbit (SSC).

The proposed Project would remove potential nesting and foraging habitat for the loggerhead shrike. Although this species was not observed during biological surveys, the loggerhead shrike has declined appreciably in western Riverside County and the loss of potential habitat would potentially represent a CEQA-significant impact prior to mitigation. However, this impact would be reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves this species and associated suitable habitat on a regional level.

As burrowing owls were not observed within the Project footprint during focused surveys, the proposed Project would not cause impacts to burrowing owl. However, due to the mobile nature of the species, a pre-construction burrowing owl survey is required by Section 6.3.2 of the MSHCP. Refer to Section 6.0 for details.

Proposed impacts to western spadefoot, coast horned lizard, coastal whiptail, red-diamond rattlesnake, Bell's sage sparrow, ferruginous hawk (foraging role only), northwestern San Diego pocket mouse, and San Diego black-tailed jackrabbit would be less than significant under CEQA. This is based on the number of individuals potentially affected, the species role within the Project footprint, the marginal quality and limited amount of potentially suitable habitat removed by the proposed Project, and/or whether the species remains restricted on a gobal level, yet locally abundant within the region. Regardless, these species are designated as Covered Species under the MSHCP, with all potential impacts reduced to below a level of significance through compliance with the biological requirements of the MSHCP, which conserves these species and associated suitable habitat on a regional level.

Non-Listed Species, Non-MSHCP Covered
The proposed Project will also result in a loss of habitat that has potential to support the following non-listed, special-status species that are not covered by the MSHCP: crotch bumble bee (SSC), California glossy snake (SSC), coast patch-nosed snake (SSC), southern California legless lizard (SSC), American badger (SSC), Dulzura pocket mouse (SSC), pallid bat (SSC), southern grasshopper mouse (SSC), western mastiff bat (SSC), and western yellow bat (SSC).

Crotch bumble bee (SSC), California glossy snake (SSC), coast patch-nosed snake (SSC), southern California legless lizard (SSC), Dulzura pocket mouse (SSC), and southern grasshopper mouse (SSC) were not observed within the Project site during biological surveys, yet these species have potential to occur throughout the site in the various vegetation communities. Impacts to habitat that potentially supports these species would be less than significant under CEQA due to each species having a low-level of sensitivity (i.e., still common to western Riverside County), as well as the marginal quality and limited amount of potentially suitable habitat removed by the proposed Project. Regardless, although these species are not covered under the MSHCP, the conservation lands that comprise the MSHCP reserve assembly include habitat suitable to support these species on a regional level. Therefore, any potential impact is addressed through consistency with the MSHCP, as suitable habitat for these species has been conserved on a regional level.

The Project site also contains habitat with the potential to support foraging by additional special-status species, including American badger (SSC), pallid bat (SSC), western mastiff bat (SSC), and western yellow bat (SSC). The Project would permanently impact 37.02 acres of habitat with the potential to support foraging for these species. The loss of this foraging habitat would not be a significant impact under CEQA due to the marginal quality and limited amount of potential foraging habitat removed by the proposed Project. Regardless, although these species are not covered under the MSHCP, the conservation lands that comprise the MSHCP reserve assembly include habitat suitable to support foraging for these species on a regional level. Therefore, regardless of impacts, suitable foraging habitat for these species has been conserved on a regional level.

Impacts to Raptors
Raptors (Birds of Prey) include owls, hawks, eagles, and falcons. Common species of raptors (e.g. red-tailed hawk, American kestrel, great horned owl) have potential to forage within the Project footprint, and during the field studies a red-tailed hawk was observed foraging within the site. Raptors were not observed nesting within the Project site over the course of the surveys, and raptor nesting habitat is limited to the riparian habitat associated with Cooper's Creek which will be avoided by the proposed Project.

The proposed removal of 37.02 acres of suitable raptor foraging habitat within the Project footprint would not be a significant impact under CEQA due to the marginal quality and limited amount of potential foraging habitat removed by the proposed Project. Regardless, although the common raptor species (e.g., American kestrel and Red-tailed Hawk) are not covered under the MSHCP, the biological requirements of these species are expected to be conserved due to the parallel habitat needs with those raptors covered under the Plan.

Impacts to Fairy Shrimp
As noted above in Section 4.5.2, wet season fairy shrimp surveys were inconclusive and dry season surveys are currently ongoing, with additional wet season sampling scheduled to occur during the 2021-2022 wet season. Should listed fairy shrimp be detected within the Project site including Riverside fairy shrimp (FE), San Diego fairy shrimp (FE), and/or vernal pool fairy shrimp (FT), any impact to these species as a result of the proposed Project would represent a CEQA-significant impact prior to mitigation and would require a DBESP under the MSHCP. As such, a project-specific mitigation measure is provided in Section 6 for any potential impact once focused surveys are concluded.

5.3 Impacts to Sensitive Vegetation Communities

Appendix G(a) of the CEQA guidelines asks if a project is likely to "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 proposed Project would not impact any sensitive or special-status vegetation communities, including riparian habitat. Table 5-1 provides a summary of vegetation community/land cover impacts. The proposed Project would permanently impact approximately 8.6 acres of native habitats and 28.4 acres of non-native habitats [Exhibit 5]. A majority of the impacted habitats are non-native (non-native grassland, disturbed/developed areas).

Table 5-1. Summary of Vegetation Community/Land Cover Impacts

VEGETATION COMMUNITY/LAND COVER	Total Impacts (acres)
Non-Native Grassland	18.56
Riversidean Sage Scrub	5.39
Scrub Oak Chaparral	3.20
Disturbed/Developed	9.87
Total	**37.02**

The proposed Project would also permanently impact 0.12 acre of MSHCP riparian resources and 1.35 acres of unvegetated riverine resources. Table 5-2 below provides a summary of MSHCP riparian/riverine impacts and avoidance [Exhibit 8C].

Table 5-2. Proposed Impacts and Avoidance of MSHCP Riparian/Riverine Resources

Drainage Name	Impacted MSHCP Riparian (acres)	Impacted MSHCP Riverine (acres)	Avoided MSHCP Riparian (acres)	Avoided MSHCP Riverine (acres)
Cooper's Creek	0	0	6.21	0
Drainage A	0.12	1.23	0	0
Drainage A-1	0	0.12	0	0
Total	**0.12**	**1.35**	**6.21**	**0**

The MSHCP riparian vegetation that would be impacted by the proposed Project consists of individual blue elderberry and scrub oak individuals totaling 0.12 acre, which, in the context of the Project site constitute riparian resources, yet do not represent an appreciable vegetation community. As such, they do not have potential to support riparian associated species such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. These trees are isolated, and individually represent MSHCP riparian resources, yet are a component of the assemblage of the surrounding non-riparian vegetation communities, including Riversidean sage scrub and non-native grasslands. As a regulated resource under the MSHCP, impacts to these riparian-associated trees would be a potentially significant impact under CEQA and would also trigger a DBESP.

The MSHCP requires that impacts to riparian/riverine resources be mitigated, such that the lost functions and values are replaced, in order for the Project to be "biologically equivalent or superior" to the existing site conditions prior to impact.

Proposed mitigation is discussed in Section 6.0 of this report, demonstrating that the proposed Project would meet the requirements of the MSHCP and hence reduce potentially significant impacts under CEQA to a level of less than significant.

5.4 Wetlands

Appendix G(c) of the State CEQA guidelines asks if a project is likely to "have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means."

Approximately 1.22 acres and 1692 linear feet of wetland WoUS potentially regulated by the Corps and Regional Board are present within the southern (avoided) portion of the Project site; however, these areas are not proposed to be impacted by the proposed Project. Therefore, no impact to federally or state regulated wetlands will occur as a result of the proposed Project.

5.5 Wildlife Movement and Native Wildlife Nursery Sites

Appendix G(d) of the State CEQA guidelines asks if a project is likely to "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."

The Project footprint lacks migratory wildlife corridors and does not occur within MSHCP Cores or Linkages. The proposed Project would not interfere with or otherwise impact (1) the movement of native resident or migratory fish or wildlife species or (2) established native resident or migratory wildlife corridors. In addition, the Project site is not expected to support wildlife nursery sites for mammals, including bats.

5.5.1 Migratory Birds

The 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.

Although impacts to native birds are prohibited by the MBTA and similar provisions of California Fish and Game Code, impacts to native birds by the proposed Project would not be a significant impact under CEQA. The native birds with potential to nest on the Project site would be those that are extremely common to the region and highly adapted to human landscapes (e.g., house finch, killdeer). The number of individuals potentially affected by the Project would not significantly affect regional, let alone local populations of such species. A measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

5.6 Local Policies or Ordinances

Appendix G(e) of the State CEQA guidelines asks if a project is likely to "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance." The Project will not conflict with any local policies or ordinances protecting biological resources.

5.7 Habitat Conservation Plans

Appendix G(f) of the State CEQA guidelines asks if a project is likely to "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 within the Western Riverside County MSHCP. Section 7.0 of this report analyzes compliance of the Project with the Reserve Assembly and species/habitat requirements of the MSHCP. Impacts to species/habitats with MSHCP requirements are summarized here. Through compliance with the applicable requirements, the Project will not conflict with the provisions of the MSHCP.

5.8 Impacts to Jurisdictional Waters

The proposed Project would permanently impact 1.30 acres of Regional Board jurisdiction, none of which consists of jurisdictional wetlands [Exhibit 8B]. A total of 2,187 linear feet of streambed would be permanently impacted. In addition, the proposed Project would permanently impact 1.46 acres (2,187 linear feet) of CDFW jurisdiction, of which 0.12 acre consists of vegetated riparian habitat [Exhibit 8C]. A summary of proposed impacts to potential jurisdictional resources is summarized in Table 5-3 below.

Table 5-3. Impacts to Potential Jurisdictional Waters

Drainage Name	Regional Board Non-Wetland Waters (acres)	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Length (linear feet)
Cooper's Creek	0	0	0	0
Drainage A	1.22	1.23	0.12	1,489
Drainage A-1	0.08	0.12	0	699
Total	**1.30**	**1.35**	**0.12**	**2188**

The proposed impacts to Regional Board and CDFW jurisdictional waters would be potentially significant under CEQA prior to mitigation as the total potential jurisdiction is over one acre. In addition, these impacts would require regulatory permitting pursuant to Section 13260 of the Porter-Cologne Water Quality Control Act and Section 1602 of the Fish and Game Code. Section 6.0 of this report provides project-specific mitigation measures. With the proposed mitigation, Project impacts to these drainages would be less than significant under CEQA.

In addition, and as discussed above in Section 5.3, the proposed Project will permanently impact MSHCP riparian/riverine areas, including 0.12 acre of riparian and 1.35 acres of unvegetated riverine resources. Impacts to riparian/riverine areas must be mitigated such that the resulting project, with mitigation, is biologically equivalent or superior to the existing site conditions. As such, a DBESP is required (refer to Section 7.2).

5.9 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. Although the Project site is not located within or adjacent to the MSHCP Conservation Area, the drainages within the Project footprint drain to Cooper's Creek and San Timoteo Creek, portions of which are located within the Conservation Area (Cooper's Creek - Public Quasi-Public Land, and San Timoteo Creek - Public Quasi-Public Land and Regional Conservation Authority Conserved Lands). In addition, the proposed Project impact footprint is located approximately 50 to 320 feet north of habitat which represents long-term conservation value for LBV. The Project is not expected to result in significant indirect impacts to special-status biological resources within the downstream Conservation Area or nearby habitat representing long-term conservation value for LBV, with the implementation of measures pursuant to the MSHCP Urban/Wildlands Interface Guidelines (*Volume I, Section 6.1.4* of the MSHCP). These guidelines are intended to address indirect effects associated with locating projects (particularly development) in proximity to the MSHCP Conservation Area. To minimize potential edge effects, the guidelines are to be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area. The Project will implement measures consistent with the MSHCP guidelines to address the following:

- Drainage;
- Toxics;
- Lighting;

- Noise; and
- Invasives.

5.9.1 Drainage

Proposed Projects in proximity to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV). This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

The Project's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to address runoff and water quality during construction.

5.9.2 Toxics

Land uses proposed in proximity to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV). Measures such as those employed to address drainage issues shall be implemented. The proposed Project will implement a SWPPP that will address runoff during construction.

5.9.3 Lighting

Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) from direct night lighting. If night lighting is required during construction, shielding shall be incorporated to ensure ambient lighting in the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) is not increased.

5.9.4 Noise

Proposed noise generating land uses affecting the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) should not be subject to noise that would exceed residential noise standards.

5.9.5 Invasives

Projects adjacent to the MSHCP Conservation Area and lands representing long-term conservation value for riparian/riverine-associated species (LBV) shall avoid the use of invasive plant species in landscaping, including invasive, non-native plant species listed in Volume I, *Table 6-2* of the MSHCP.

5.10 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 discussed throughout this report, the 37.02 acres proposed for impacts by the Project consist of relatively disturbed lands with remnant patches of native scrub habitat, surrounded primarily by active construction and vehicular roadways. The proposed Project would permanently impact potential Regional Board and CDFW jurisdiction, as well as MSHCP riparian/riverine resources; however, all impacts would be fully mitigated (refer to Section 6). The Project site is not located within the MSHCP Criteria Area and no special-status species, including plant or wildlife species, that are not covered under the MSHCP that could trigger a CEQA significant impact were observed or detected within the Project site. In addition, the conservation lands that comprise the MSHCP reserve assembly include habitat suitable to support non-MSHCP covered species on a regional level, as they have similar habitat requirements to many MSHCP covered species. Therefore, any potential cumulative impact is addressed through consistency with the MSHCP, pursuant to conservation requirements on a regional level.

As such, through compliance and participation with the MSHCP, the loss of this area will not contribute to a cumulatively significant impact to biological resources.

6.0 MITIGATION/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 footprint contains suitable habitat for burrowing owls; however, burrowing owls were not detected during focused surveys. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys are conducted 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:

- **Pre-Construction Survey.** A 30-day pre-construction survey for burrowing owls is required prior to future ground-disturbing activities (e.g., vegetation clearing, clearing and grubbing, site watering, equipment staging, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the initiation of ground-disturbing activities, the project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies and will need to coordinate in the future with the RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure that burrowing owl have not colonized the site since it was last disturbed. If burrowing owls are found, the same coordination described above will be necessary.

6.2 Least Bell's Vireo

Willow riparian habitat associated with Cooper's Creek occurs at various distances ranging from approximately 50 to 320 feet south of the Project footprint and represents potential habitat for the state and federally listed LBV. Although 100 percent of the habitat that is occupied or potentially occupied by LBV will be avoided by the proposed Project, and habitat that represents long-term conservation value for LBV will not be impacted by the proposed Project, GLA recommends the following measures to ensure the nesting/breeding activities of this species are not disrupted and no impact to habitat that represents long-term conservation value for LBV occurs as a result of the proposed Project:

- The project impact footprint, including any construction buffer, shall be staked and fenced (e.g., with orange snow fencing, silt fencing or a material that is clearly visible) and the boundary shall be confirmed by a qualified biological monitor prior to ground disturbance. The construction site manager shall ensure that the fencing is maintained for the duration of construction and that any required repairs are completed in a timely manner.
- Equipment operators and construction crews will be informed of the importance of the construction limits by the biological monitor prior to any ground disturbance.

- Construction activities within 300 feet of the nearest extent of adjacent riparian habitat associated with Cooper's Creek will be avoided from April 1st through August 31st.
- For any vegetation clearing or work within 100 feet of Cooper's Creek, a biologist will monitor to ensure encroachment into Cooper's Creek does not occur.
- Active construction areas will be watered regularly (at least once every two hours) to control dust and thus minimize impacts on vegetation within Cooper's Creek.
- Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the limits of disturbance and designated staging areas and routes of travel approved by the biological monitor.
- Exotic plant species removed during construction will be properly handled to prevent sprouting or regrowth. Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds before mobilizing to the site and before leaving the site during the course of construction. The cleaning of equipment will occur at least 300 feet from jurisdictional aquatic features, including Cooper's Creek. If the location is closer, it must be approved by the biological monitor.
- Vegetation will be covered while being transported, and vegetation materials removed from the site will be disposed of in accordance with applicable laws and regulations.
- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances will occur only in designated areas within the limits of disturbance and at least 200 feet from jurisdictional aquatic features, including Cooper's Creek. These designated areas will be clearly marked and located in such a manner as to contain runoff and will be approved by the biological monitor.
- To avoid attracting predators, the project site will be kept clear of trash and debris. All food related trash items will be enclosed in sealed containers and regularly removed from the site.

6.3 Nesting Birds

The Project site contains vegetation with the potential to support native nesting birds. As discussed above, the California Fish and Game Code prohibits mortality of native birds, including eggs. The following measure is recommended to avoid mortality to nesting birds. Potential impacts to native birds was not considered a biologically significant impact under CEQA, however to comply with state law, the following is recommended:

- 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.

6.4 Fairy Shrimp

As noted above, wet season fairy shrimp surveys were discontinued and were inconclusive due to the lack of rainfall during the 2020-2021 rainy season. Dry season soil collection is currently ongoing, and additional wet season sampling is scheduled to occur during the 2021-2022 wet season to further assess whether these depressional features support the necessary hydrology. Sampling was and will continue to be conducted per the USFWS survey protocol entitled *Survey Guidelines for the Listed Large Branchiopods* (dated November 13, 2017). A written report documenting the findings of focused fairy shrimp surveys will be provided upon conclusion.

If the focused surveys render negative results and listed fairy shrimp are not found to be present within the Project site, no additional action is required. However, if the Project site is found to support listed fairy shrimp the following mitigation measure be required:

- Vernal pool habitat (depressional areas occupied by listed fairy shrimp species) shall be mitigated at a minimum 1:1 ratio, and shall include one, or a combination of, the following, all of which shall include the introduction of fairy shrimp inoculum except where listed fairy shrimp already occupy mitigation lands and shall occur within the MSHCP Plan Area:
    - On-site creation, enhancement, or restoration and placement into a conservation easement (CE) or similar protective mechanism;
    -
    - Off-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
    - Off-site acquisition and preservation and placement into a CE or similar protective mechanism;
    - Purchase of credits at an agency-approved mitigation bank; and/or
    - Payment into an agency-approved in-lieu fee program.
- A DBESP will be prepared and approved by the Wildlife Agencies (USFWS, CDFW).

6.5 Jurisdictional Waters

As noted above in Section 5, the Project will impact 1.30 acres of Regional Board jurisdiction and 1.46 acres of CDFW jurisdiction, including 0.12 acre of vegetated riparian streambed. The following measure identifies mitigation proposed for impacts to jurisdictional waters:

- Impacts to unvegetated waters of the U.S. and state shall be mitigated at a minimum 1:1 ratio and impacts to wetland/vegetated streambed shall be mitigated at a minimum ratio of 2:1, subject to approval of the RWQCB and CDFW, and include one, or a combination of, the following:
    - On-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
    - Off-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
    - Off-site acquisition and preservation and placement into a CE or similar protective mechanism;

- Purchase of credits at an agency-approved mitigation bank such as Riverpark; and/or
- Payment into an agency-approved in-lieu fee agreement.

6.6 MSHCP Riparian/Riverine Areas

As noted above in Section 5, the Project will impact 0.12 acre of MSHCP riparian resources and 1.35 acres of unvegetated riverine resources. The following measures will address these impacts:

- **DBESP.** A DBESP analysis will be submitted to the Wildlife Agencies to approve impacts to MSHCP riparian/riverine areas.
- Impacts to unvegetated MSHCP riverine areas shall be mitigated at a minimum 1:1 ratio and impacts to MSHCP riparian shall be mitigated at a minimum ratio of 2:1, subject to approval of the wildlife agencies, and include one, or a combination of, the following:
  - On-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
  - Off-site creation, enhancement, or restoration and placement into a CE or similar protective mechanism;
  - Off-site acquisition and preservation and placement into a CE or similar protective mechanism;
  - Purchase of credits at an agency-approved mitigation bank such as Riverpark; and/or
  - Payment into an agency-approved in-lieu fee program.

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 proposed Project is located within The Pass Area Plan of the MSHCP. However, the Project site is not located within the MSHCP Criteria Area and would therefore not be subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process or the Joint Project Review (JPR) process. As such, the Project would not conflict with Reserve Assembly goals.

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

The MSHCP defines Riparian/Riverine Areas as "*lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source, or areas with fresh water flow during all or a portion of the year*."

As discussed in Sections 4.10 and 5.3 above, the proposed Project will permanently impact MSHCP riparian/riverine areas, including 0.12 acre of riparian and 1.35 acres of unvegetated riverine resources. Impacts to riparian/riverine areas must be mitigated such that the resulting project, with mitigation, is biologically equivalent or superior to the existing site conditions. As such, a DBESP is required, after which the proposed Project will be consistent with MSHCP *Volume I, Section 6.1.2* of the MSHCP.

It should be noted that the Project will not impact habitat with the potential to support riparian birds, including the least Bell's vireo, southwestern willow flycatcher, or the western yellow-billed cuckoo; however, due to the proximity of the Project footprint to Cooper's Creek, an LBV-specific measure is outlined in Section 6.2.

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 indicators of hydrology and/or vegetation during the drier portion of the growing season*."

The proposed Project does not contain vernal pools, and therefore will not impact, any MSHCP vernal pools. If fairy shrimp are detected within the Project site during future focused surveys, a fairy shrimp-specific measure is outlined in Section 6.4. As such, the proposed Project is consistent with MSHCP *Volume I, Section 6.1.2* as it pertains to vernal pools.

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 proposed Project site is located within the MSHCP NEPSSA designated survey area 8; therefore, the following target species were evaluated: many-stemmed dudleya and Yucaipa onion. As noted in Section 4.4.1, both species were confirmed absent during focused plant surveys. As such, the proposed Project would be consistent with *Volume I, Section 6.1.3* of the MSHCP.

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.

The proposed Project is not located in proximity to MSHCP Conservation Areas; therefore, the Urban/Wildland Interface Guidelines are not applicable to the Project. Furthermore, since the Project site is surrounded by developed and other non-native areas with varying rural land uses, the Project will not indirectly impact sensitive biological resources.

7.5 Additional Survey Needs and Procedures

Volume I, Section 6.3.2 of the MSHCP states that in addition to the Narrow Endemic Plant Species addressed in *Volume I, 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 for additional plant species if a project site occurs within a designated Criteria Area Plant Species Survey Area. In addition, focused surveys are also required (with suitable habitat) for seven animal species as identified by the corresponding Survey Area.

The Project site is located within the MSHCP Burrowing Owl Survey Area. Focused burrowing owl surveys were performed within the Study Area and burrowing owls were not detected. However, as discussed above in Section 6.1, pre-construction surveys are required no more than 30 days prior to construction to confirm the absence of owls.

A 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities (e.g. vegetation clearing, clearing and grubbing, tree removal, site watering) to ensure that no burrowing owls have colonized the Project site in the days or weeks preceding the initial ground-disturbing activities. If burrowing owls are found to have colonized the Project site prior to the initiation of ground-disturbing activities, the Wildlife Agencies and the Regional Conservation Authority (RCA) will be immediately informed, and additional coordination with RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, will occur prior to initiating ground disturbance. If ground-disturbing activities occur but the Project site is left undisturbed for more than 30 days, an additional pre-construction survey will again be necessary to ensure that burrowing owls have not colonized the site since it was last disturbed. If burrow owls are found, the same coordination with the RCA and Wildlife Agencies described above will be necessary.

The Project site is not located within the CAPSSA or within the MSHCP Amphibian Survey Area; however, the Project site is located within the MSHCP Mammal Survey Area. The site was found not to contain habitat for the Los Angeles pocket mouse [Appendix C]; therefore, with the performance of pre-construction burrowing owl surveys, the proposed Project would be consistent with *Volume I, Section 6.3.2* of the MSHCP.

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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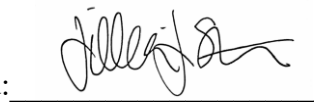
9.0 CERTIFICATION

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: __August 12, 2021__

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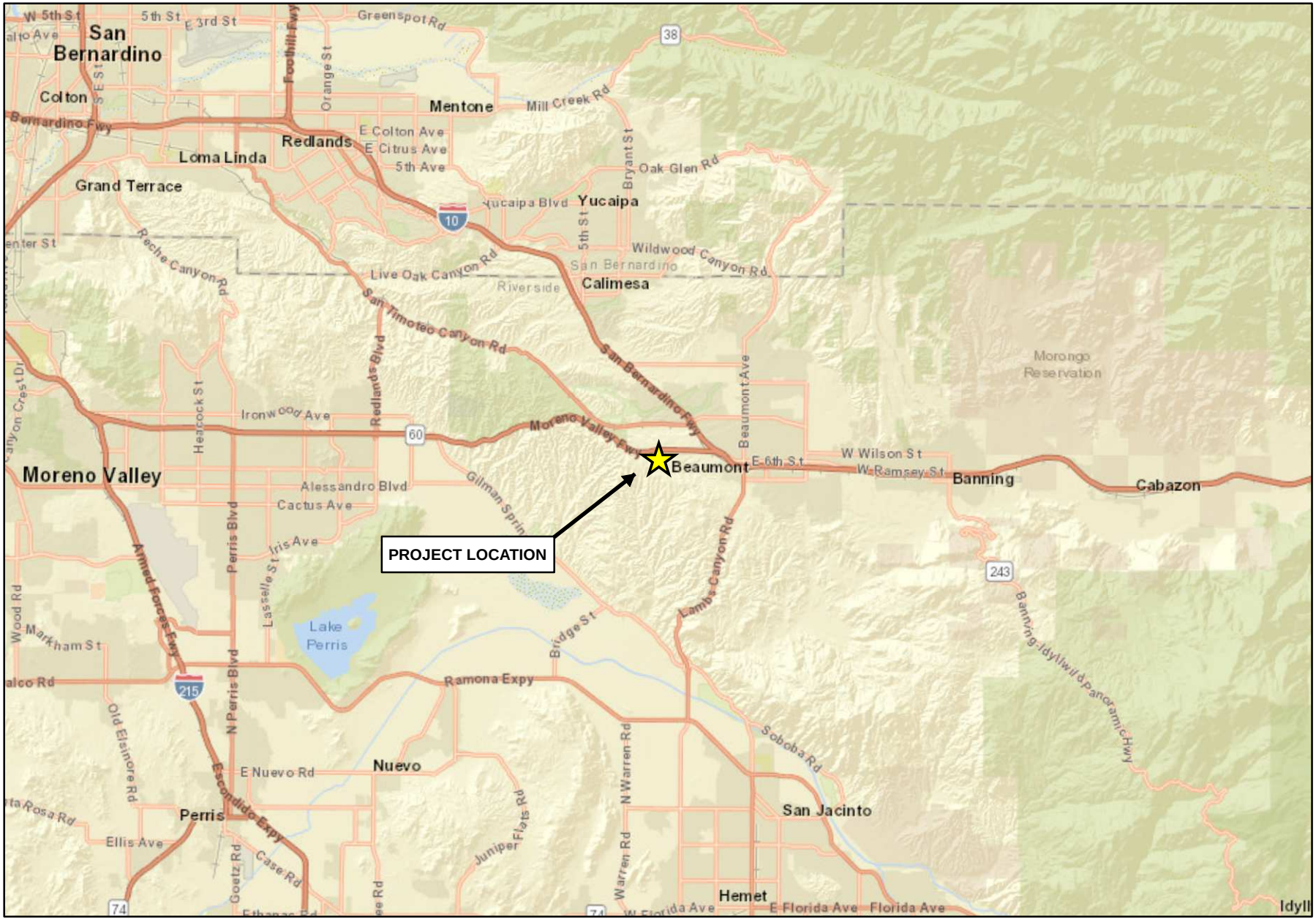


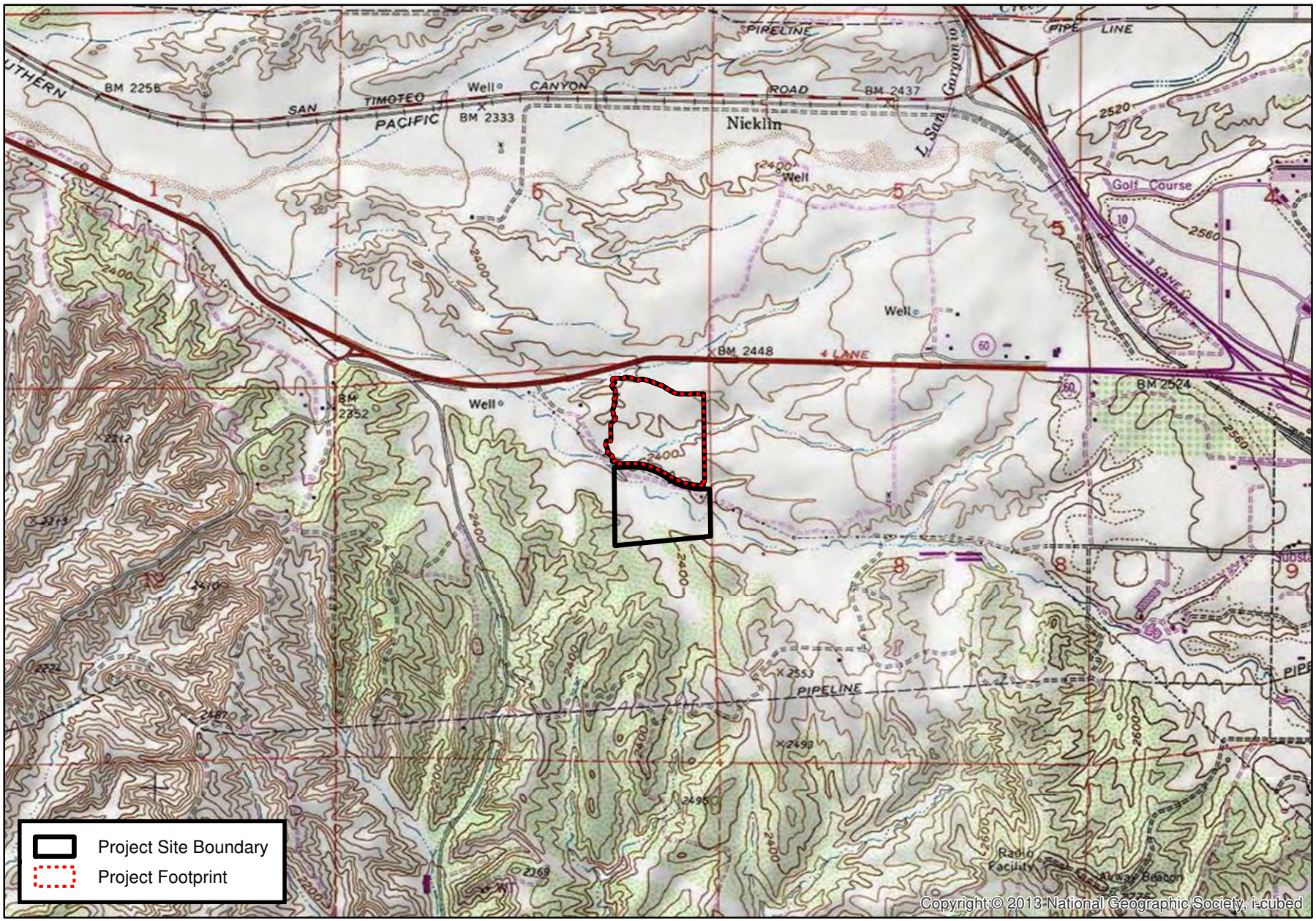
Source: ESRI World Street Map

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

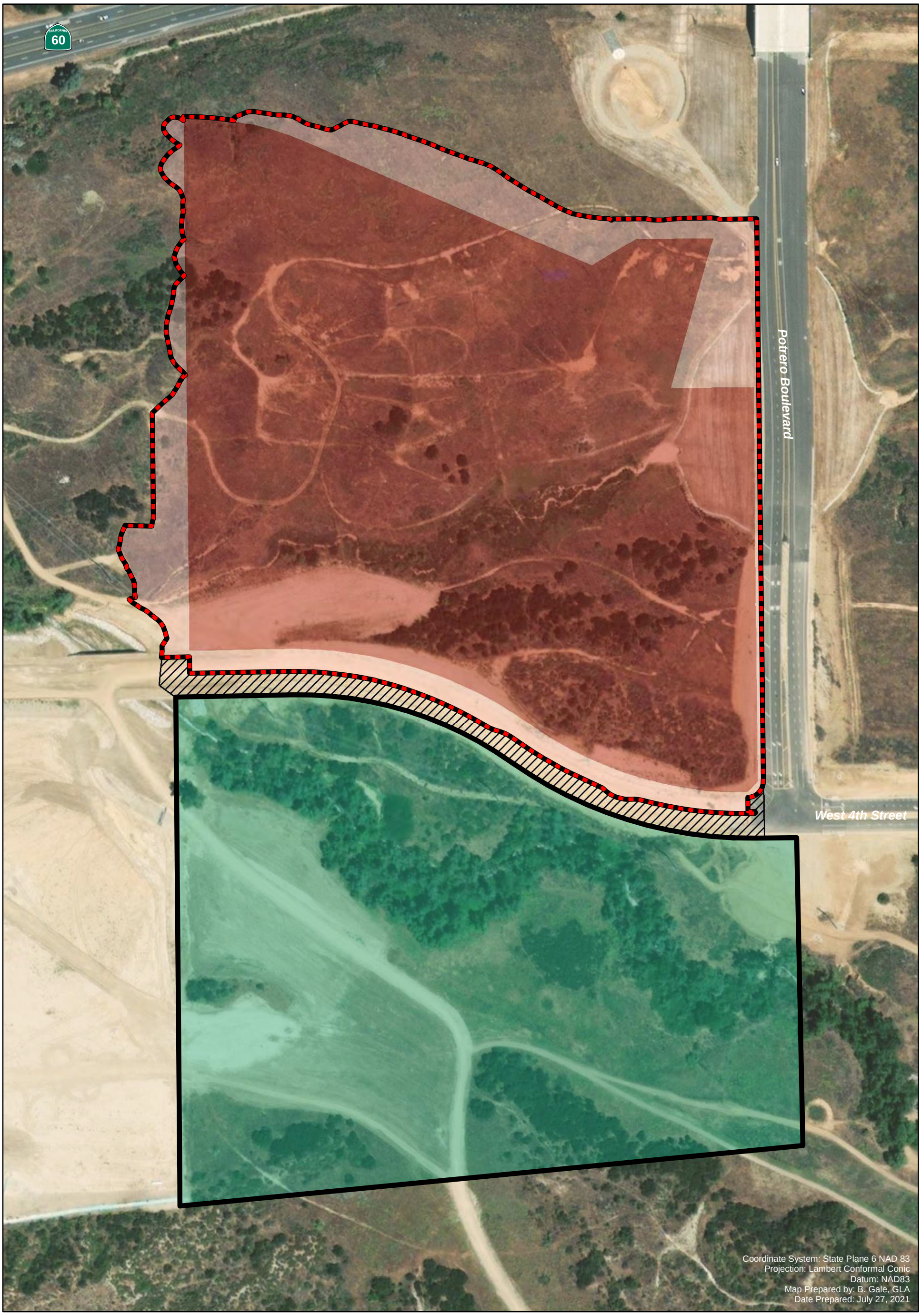


POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project Site Boundary
Project Footprint
Onsite Impact
Offsite Impact
Avoided
Not a Part

N

0 100 200 400
Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Site Plan Map

GLENN LUKOS ASSOCIATES

Exhibit 3

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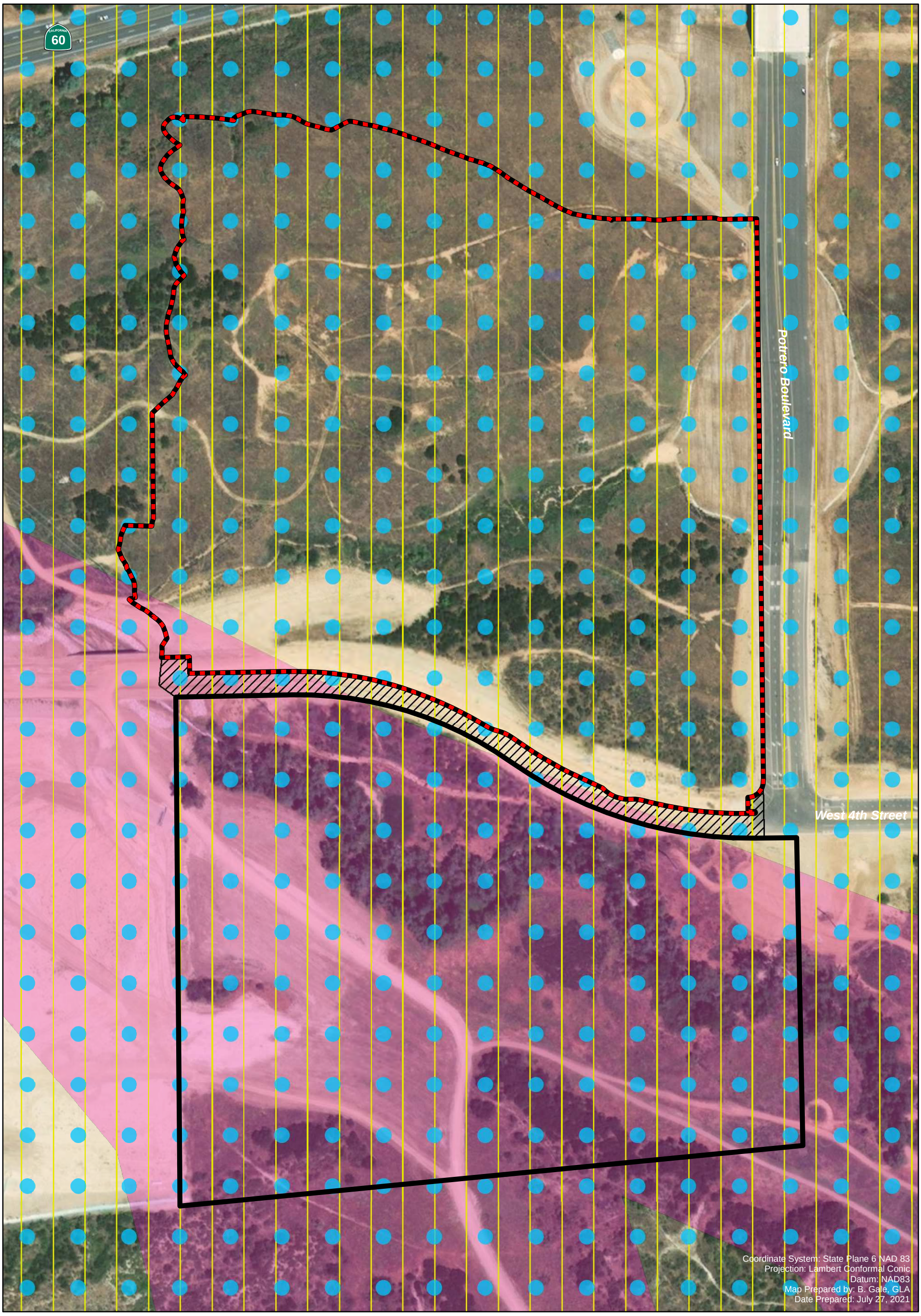

Project Site Boundary

Project Footprint

Not a Part

Burrowing Owl Survey Area

Mammal Survey Area

Narrow Endemic Plant Species Survey Area

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4

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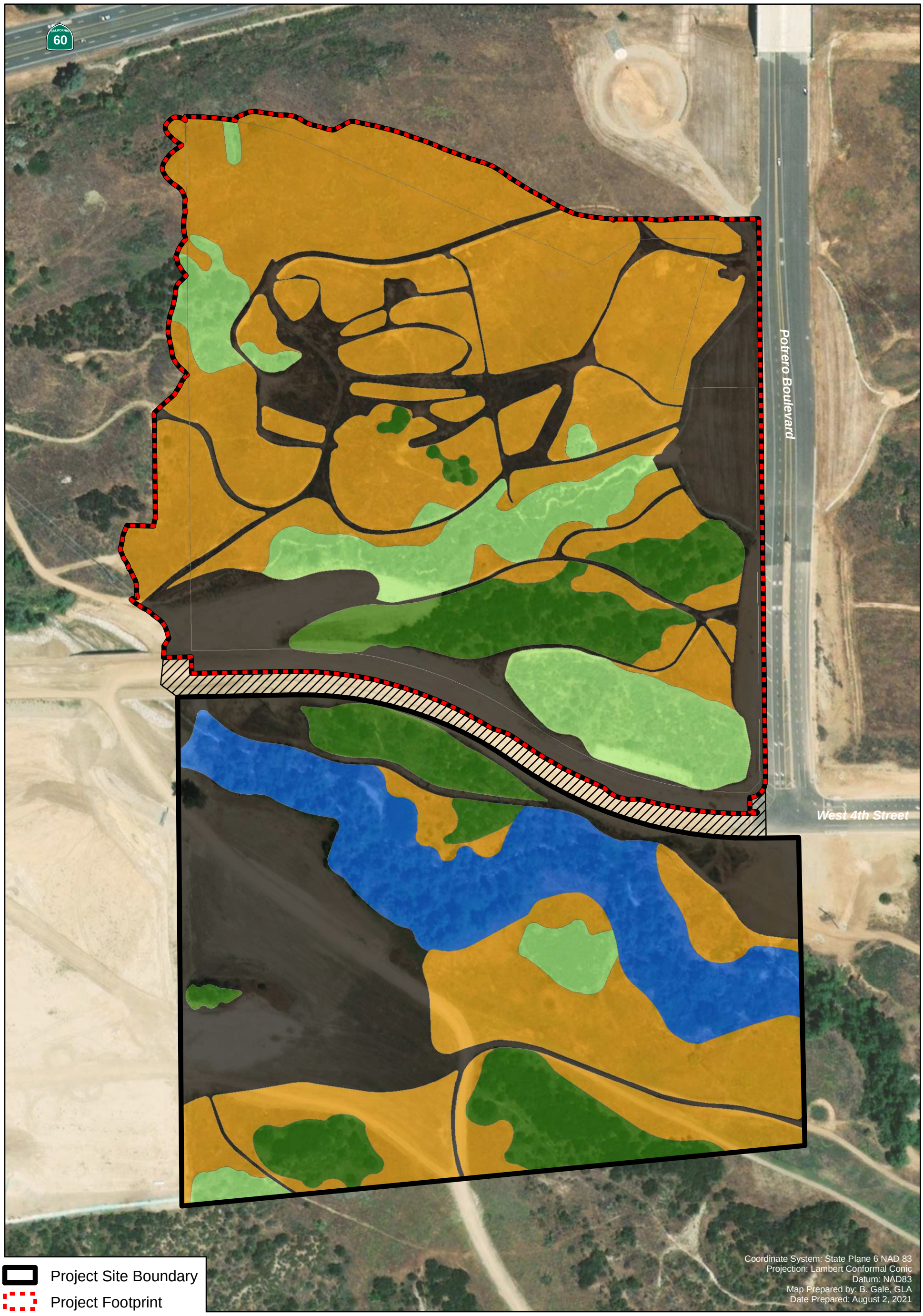

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

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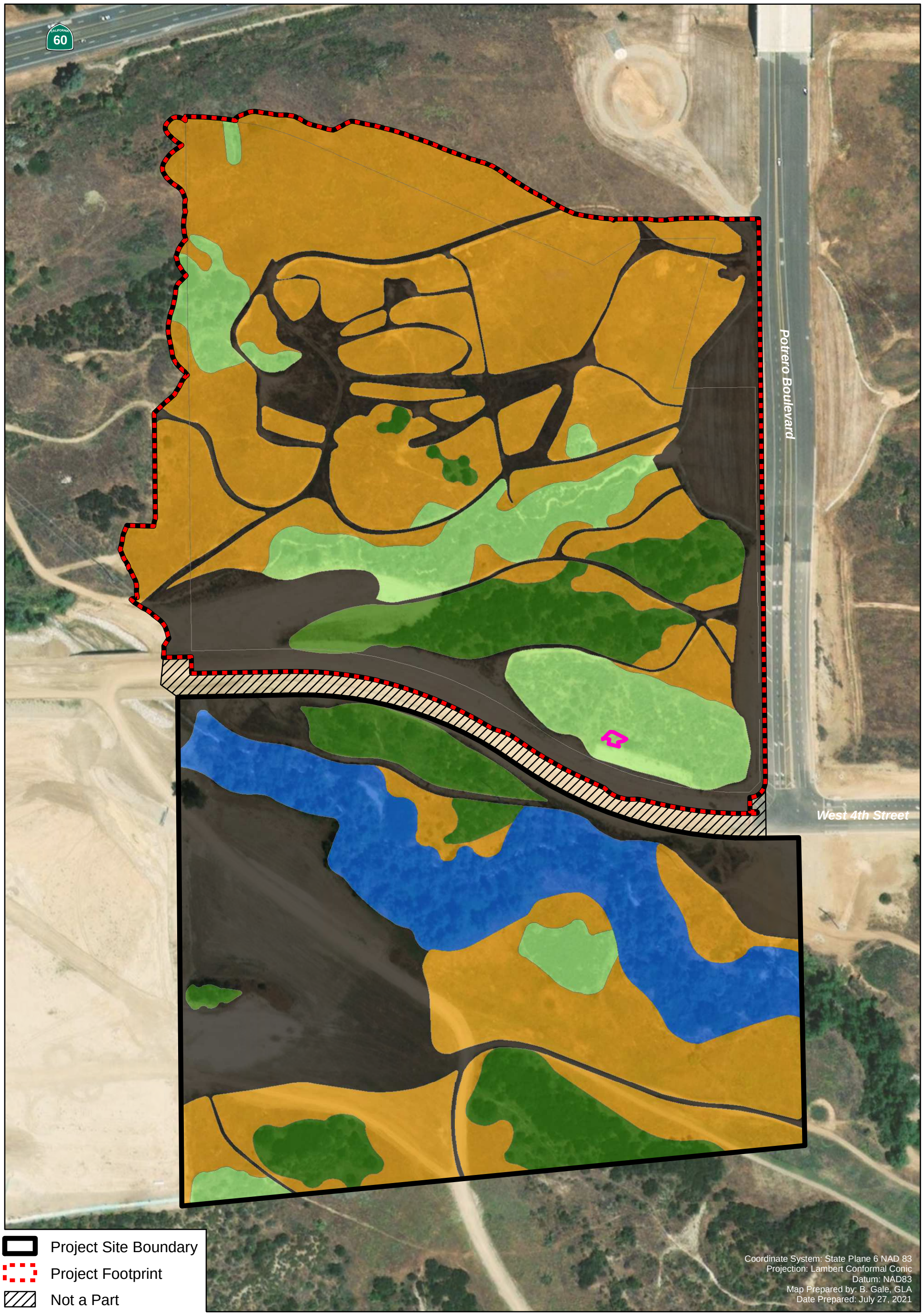

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Rare Plant Map

GLENN LUKOS ASSOCIATES

Exhibit 6

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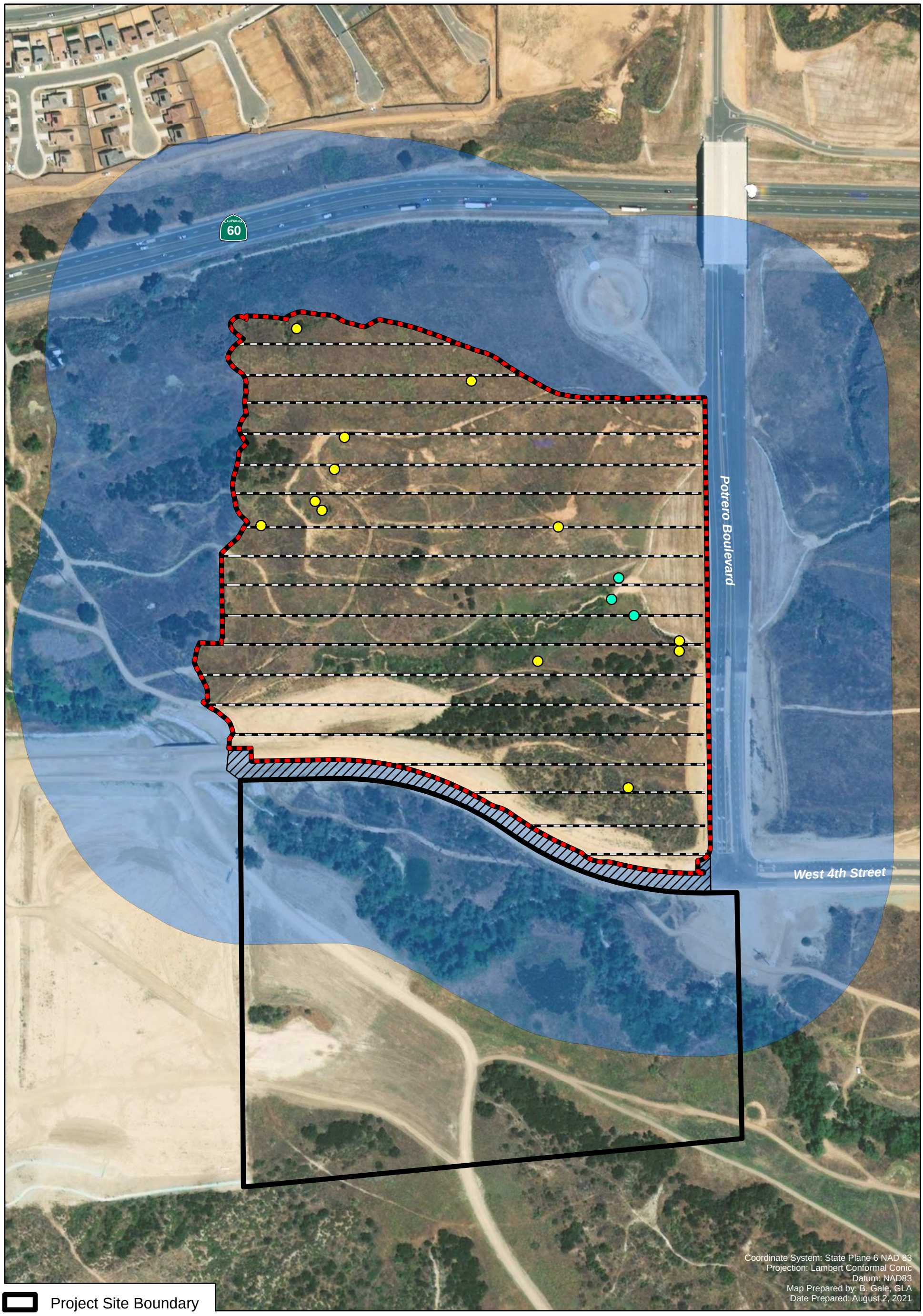


Project Site Boundary
Project Footprint
Not a Part
500' Visual Survey Area
Approximate Transect
Burrow
Burrow Complex

N

0 125 250 500
Feet

1 inch = 250 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: August 2, 2021

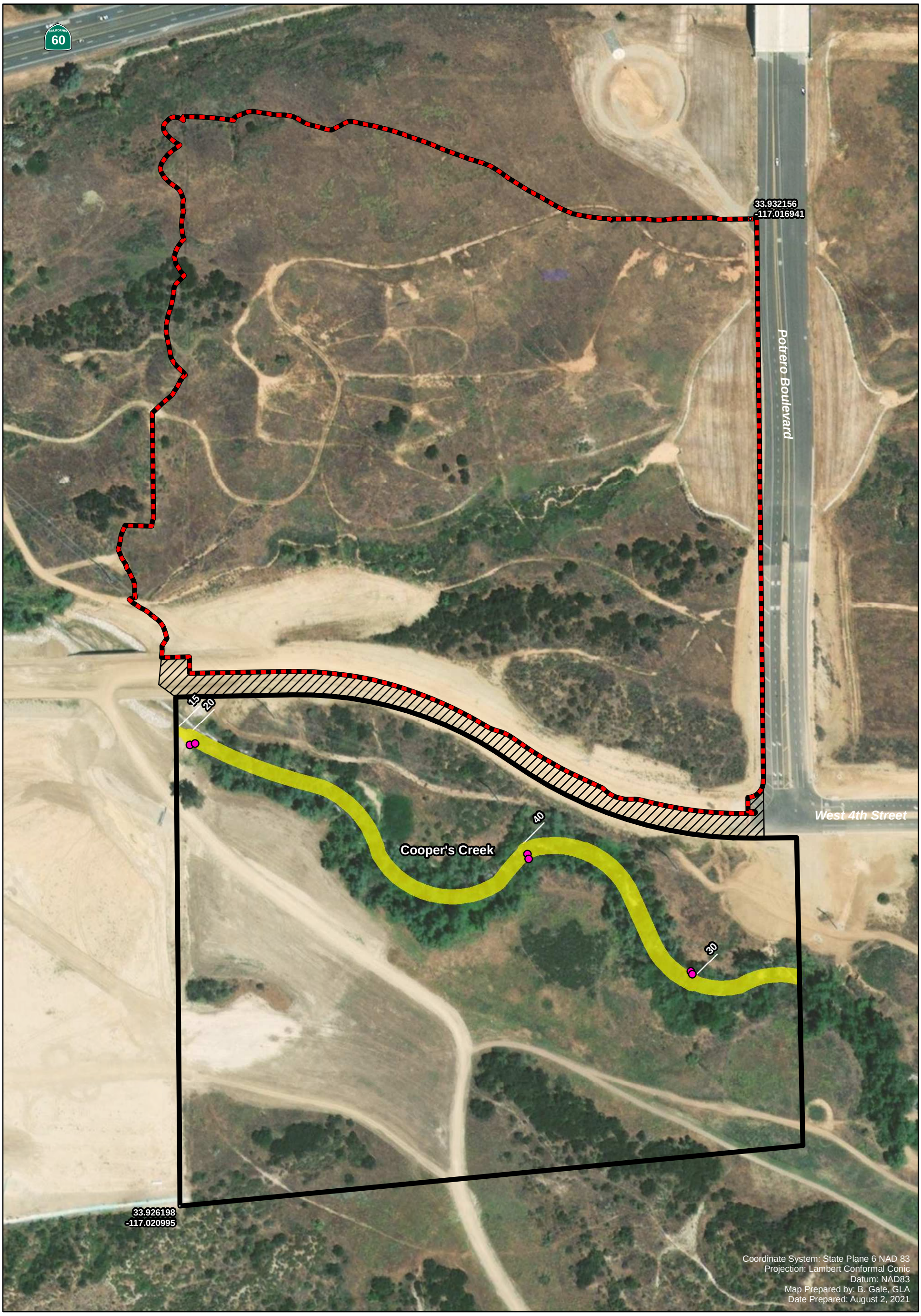
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Burrowing Owl Survey Results Map

GLENN LUKOS ASSOCIATES

Exhibit 7

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\BUOW_GIS\1275-6_BUOW.mxd



Project Site Boundary

Project Footprint

Not a Part

Wetland Waters of U.S.

6 Width of Drainage in Feet

Sample Plot

N

0 100 200 400

Feet

1 inch = 200 feet

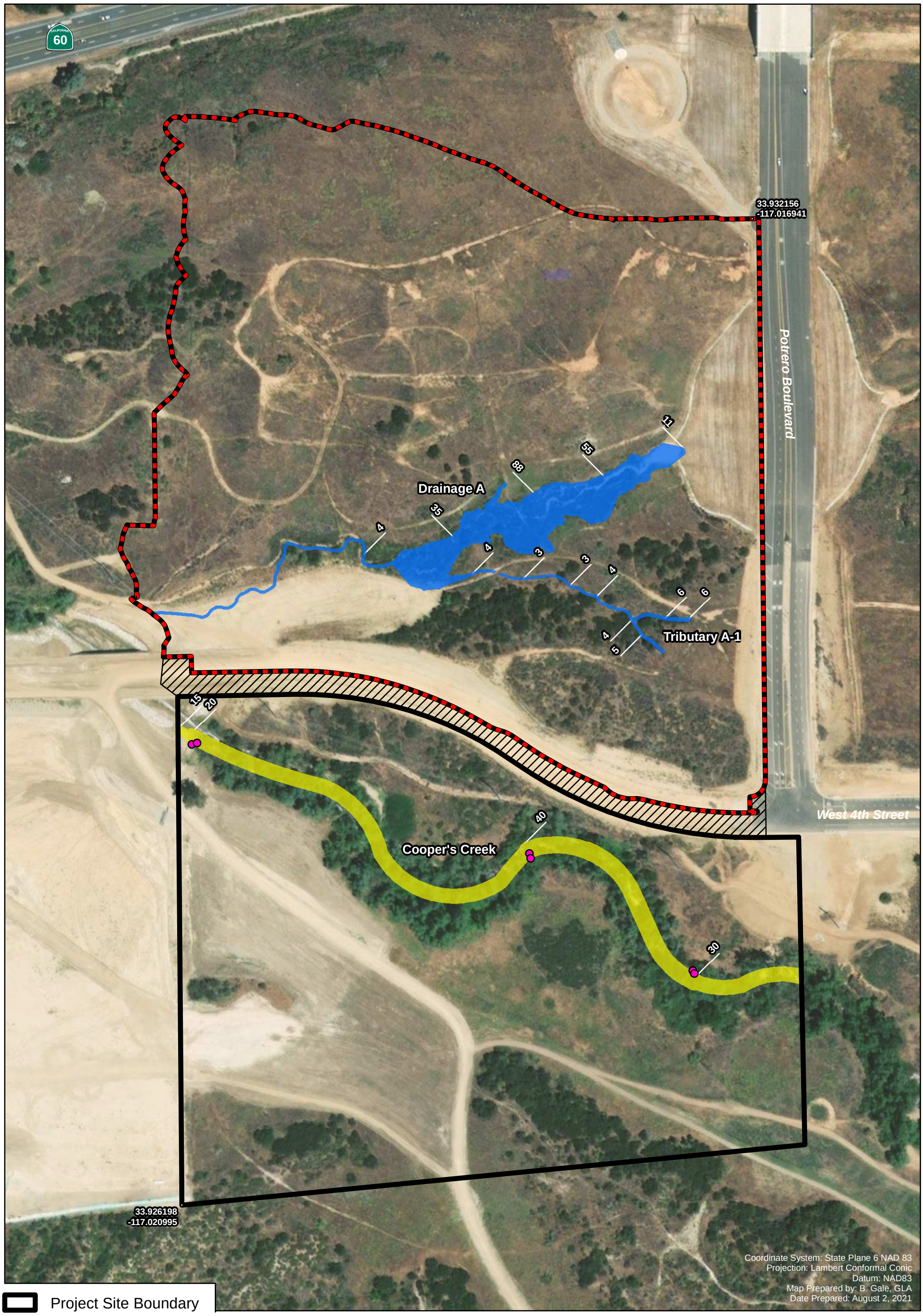
POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Corps Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 8A

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\ImpactsGIS\REV1\1275-6_JD_Corps_ImpactsREV1_noPhotos.mxd



Project Site Boundary

Project Footprint

Not a Part

Wetland Waters of U.S./State

Non-Wetland Waters of the State

6 Width of Drainage in Feet

Sample Plot

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 8B

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\ImpactsGIS\REV1\1275-6_JD_RWQCB_ImpactsREV1_noPhotos.mxd

33.932156
-117.016941

Potrero Boulevard

West 4th Street

Drainage A

Tributary A-1

Cooper's Creek

11
55
88
35
8
8
6
6
8
6
6
8
5
114
184
138
165

33.926198
-117.020995

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: August 2, 2021

Project Site Boundary
Project Footprint
Not a Part
CDFW Riparian Stream
CDFW Non-Riparian Stream
6 Width of Drainage in Feet

N

0 100 200 400
Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 8C

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\ImpactsGIS\REV1\1275-6_JD_CDFW_ImpactsREV1_noPhotos.mxd

Photograph 1: Representative site photograph taken from the northwestern Project boundary, facing southeast. Note the predominant non-native grassland vegetation community throughout the site (November 17, 2020).

Photograph 2: Representative photograph of Riversidean sage scrub vegetation community. Note the dominance of California buckwheat throughout this area. The photo is facing north (November 17, 2020).

Photograph 3: Representative site photograph taken from the eastern Project boundary, facing west. Note the scrub oak chaparral, Riversidean sage scrub, and non-native grassland vegetation communities (November 17, 2020).

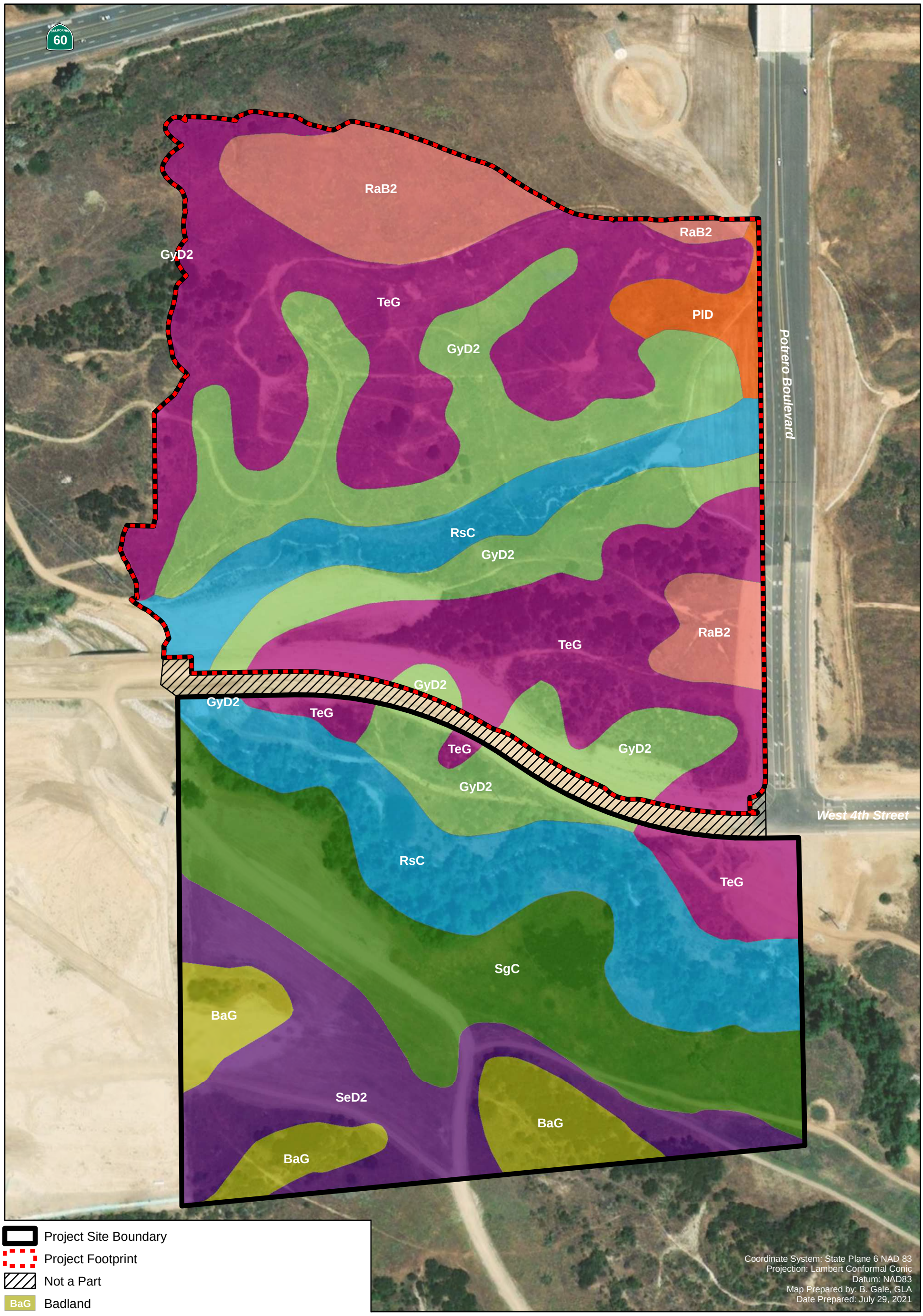
Photograph 4: View of the Riversidean sage scrub vegetation community at the southeastern limit of the Project footprint, facing southeast. Note the active road construction in the background (November 17, 2020).

Photograph 5: View of Cooper's Creek in the avoided southern portion of the Project site. The photo is facing east (December 9, 2020).

Photograph 6: View of the dense willow riparian vegetation community associated with Cooper's Creek. The photo is facing north (November 17, 2020).

Photograph 7: Image of ground squirrel burrow representing suitable habitat for burrowing owl (March 23, 2021).

Photograph 8: View of the southern segment of Drainage A-1. Note the individual scrub oak within the drainage and adjacent non-native grassland community. The photo is facing northwest (December 9, 2020).



Project Site Boundary

Project Footprint

Not a Part

BaG Badland

GyD2 Greenfield sandy loam, 8 to 15 percent slopes, eroded

PlD Placentia fine sandy loam, 5 to 15 percent slopes

RaB2 Ramona sandy loam, 2 to 5 percent slopes, eroded

RsC Riverwash

SeD2 San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded

SgC San Emigdio loam, 2 to 8 percent slopes

TeG Terrace escarpments

N

0 100 200 400

Feet

1 inch = 200 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: July 29, 2021

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 10

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\SoilsGIS\1275-6_Soils.mxd

APPENDIX A
FLORAL COMPENDIUM

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

LEGEND

† Denotes special-status species
* Denotes non-native species

Scientific Name	Common Name
MAGNOLIOPHYTA	**FLOWERING PLANTS**
MONOCOTYLEDONS	**MONOCOTS**
Agavaceae	**Agave Family**
Chlorogalum pomeridianum	Amole
Liliaceae	**Lily Family**
Calochortus splendens	Splendid mariposa
Poaceae	**Grass Family**
**Avena barbata*	Slim oat
**Bromus diandrus*	Ripgut brome
**Bromus hordeaceus*	Soft chess
**Bromus madritensis* ssp. *rubens*	Red brome
**Lamarckia aurea*	Goldentop
**Schismus barbatus*	Common mediterranean grass
Stipa pulchra	Purple needle grass
Themidaceae	**Brodiaea Family**
Dichelostemma capitatum	Wild hyacinth

EUDICOTYLEDONS	EUDICOTS
Adoxaceae	**Moschatel Family**
Sambucus nigra	Black elderberry
Anacardiaceae	**Cashew Family**
Rhus aromatica	Fragrant sumac
Rhus ovata	Sugar bush
Apiaceae	**Carrot Family**
**Conium maculatum*	Poison hemlock
Asteraceae	**Sunflower Family**
Ambrosia acanthicarpa	Annual burrweed
Ambrosia confertiflora	Weak leaved burweed
Artemisia californica	Coastal sage brush
Artemisia dracunculus	Tarragon
Baccharis salicifolia	Mule fat
Corethrogyne filaginifolia	Common sandaster
Ericameria palmeri	Palmer goldenweed
Erigeron canadensis	Canada horseweed
Helianthus annuus	Common sunflower
Heterotheca grandiflora	Telegraph weed
Lasthenia californica	California goldfields
Logfia filaginoides	California cottonrose
**Oncosiphon piluliferum*	Stinknet
**Sonchus asper*	Spiny sowthistle
Stephanomeria virgata	Twiggy wreath plant
Uropappus lindleyi	Silver puffs
Boraginaceae	**Borage Family**
Amsinckia intermedia	Common fiddleneck
Cryptantha intermedia	Common cryptanth
Nemophila menziesii	Baby blue eyes
Pectocarya linearis	Sagebrush combseed
Phacelia distans	Common phacelia
Phacelia ramosissima	Branching phacelia
Plagiobothrys nothofulvus	Rusty haired popcorn flower
Brassicaceae	**Mustard Family**
**Brassica tournefortii*	Saharan mustard
**Hirschfeldia incana*	Summer mustard

Lepidium nitidum	Shining pepper grass
**Sisymbrium altissimum*	Tumble mustard
Cactaceae	**Cactus Family**
Cylindropuntia californica var. *parkeri*	Brownspined pricklypear
Opuntia littoralis	Prickly pear
Chenopodiaceae	**Amaranth Family**
Chenopodium californicum	California goosefoot
**Salsola tragus*	Russian thistle
Convolvulaceae	**Morning Glory Family**
**Convolvulus arvensis*	Field bindweed
Crassulaceae	**Stronecrop Family**
Crassula connata	Sand pygmy weed
Cucurbitaceae	**Cucumber Family**
Marah macrocarpa	Wild cucumber
Euphorbiaceae	**Spurge Family**
Croton californicus	Desert croton
Croton setiger	doveweed
Fabaceae	**Pea Family**
Acmispon americanus	American bird's foot trefoil
Acmispon glaber	Deerweed
Acmispon strigosus	Strigose lotus
Lupinus bicolor	Lupine
Lupinus hirsutissimus	Stinging lupine
**Medicago polymorpha*	California burclover
**Melilotus indicus*	Annual yellow sweetclover
**Vicia villosa*	Hairy vetch
Fagaceae	**Oak Family**
Quercus berberidifolia	Inland scrub oak
Geraniaceae	**Geranium Family**
**Erodium cicutarium*	Coastal heron's bill
Juglandaceae	**Walnut Family**
†*Juglans californica*	Southern California black walnut

Lamiaceae	**Mint Family**
Salvia apiana	White sage
Trichostema lanceolatum	Vinegarweed
Montiaceae	**Miner's Lettuce Family**
Calandrinia menziesii	Red maids
Claytonia parviflora	Narrow leaved miner's lettuce
Myrsinaceae	**Myrsine Family**
**Lysimachia arvensis*	Scarlet pimpernel
Oleaceae	**Olive Family**
Fraxinus dipetala	Two petaled ash
Onagraceae	**Evening Primrose Family**
Camissoniopsis bistorta	California sun cup
Papaveraceae	**Poppy Family**
Eschscholzia californica	California poppy
Plantaginaceae	**Plantain Family**
Plantago erecta	California plantain
Polemoniaceae	**Phlox Family**
Gilia angelensis	Chaparral gilia
Navarretia atractyloides	Holly leaf navarretia
Polygonaceae	**Buckwheat Family**
†*Chorizanthe parryi* var. *parryi*	Parry's spineflower
Eriogonum elongatum	Longstem buckwheat
Eriogonum fasciculatum var. *polifolium*	California buckwheat
Eriogonum gracile	Slender buckwheat
Rhamnaceae	**Buckthorn Family**
Ceanothus sp.	Lilac
Rhamnus crocea	Redberry
Rosaceae	**Rose Family**
Adenostoma fasciculatum	Chamise
Rubiaceae	**Madder Family**
Galium aparine	Cleavers

Salicaceae	**Willow Family**
Populus fremontii	Fremont cottonwood
Salix gooddingii	Gooding's willow, black willow
Salix laevigata	Polished willow
Scrophulariaceae	**Scroph Family**
Scrophularia californica	California bee plant
Solanaceae	**Nightshade Family**
Datura wrightii	Jimsonweed
**Nicotiana glauca*	Tree tobacco
Solanum xanti	Black nightshade
Urticaeae	**Nettle Family**
Urtica dioica	Stinging nettle

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, Bradley, et al. (2014) for mammals, and AOU Checklist (1998) for birds. An (*) denotes non-native species.

REPTILIA

ANGUIDAE
Elgaria multicarinata

IGUANIDAE
Sceloporus occidentalis

PHRYNOSOMATIDAE
Uta stansburiana

REPTILES

Alligator Lizards & Relatives
Southern alligator lizard

Iguanid Lizards
Great Basin fence lizard

Phrynosomatid Lizards
common side-blotched lizard

AVES

ACCIPITRIDAE
Buteo jamaicensis

AEGITHALIDAE
Psaltriparus minimus

ALAUDIDAE
Eremophila alpestris

ANATIDAE
Anas platyrhynchos

AREDEIDAE
Ardea alba

CHARADRIIDAE
Charadrius vociferus

COLUMBIDAE
Columbidae
Zenaida macroura

BIRDS

Hawks
red-tailed hawk

Bushtits
American bushtit

Larks
horned lark

Ducks, Geese, & Swans
mallard

Bitterns
great egret

Shorebirds
killdeer

Pigeons & Doves
rock dove
mourning dove

CORVIDAE		**Crows & Jays**
	Corvus brachyrhynchos	American crow
	Corvus corax	common raven
EMBERIZIDAE		**Emberizids**
	Melospiza melodia	song sparrow
	Passerculus sandwichensis	savannah sparrow
	Pipilo crissalis	California towhee
	Pipilo maculatus	spotted towhee
	Zonotrichia leucophrys	white-crowned sparrow
FRINGILLIDAE		**Fringilline & Cardueline Finches**
	Carpodacus mexicanus	house finch
	Spinus lawrencei	Lawrence's goldfinch
	Spinus psaltria	lesser goldfinch
HIRUNDINIDAE		**Swallows**
	Hirundo rustica	barn swallow
	Stelgidopteryx serripennis	northern rough-winged swallow
	Tachycineta bicolor	tree swallow
ICTERIDAE		**Blackbirds & Orioles**
	Quiscalus mexicanus	great-tailed grackle
	Agelaius phoeniceus	red-winged blackbird
MIMIDAE		**Thrashers**
	Mimus polyglottos	northern mockingbird
	Toxostoma redivivum	California thrasher
ODONTOPHORIDAE		**New World Quails**
	Callipepla californica	California quail
PASSERELLIDAE		**American Sparrows**
	Pooecetes gramineus	vesper sparrow
PASSERIDAE		**Old World Sparrows**
*	*Passer domesticus*	house sparrow
PICIDAE		**Woodpeckers & Allies**
	Colaptes auratus	northern flicker
	Picoides nuttallii	Nuttall's woodpecker
STURNIDAE		**Starlings**
*	*Sturnus vulgaris*	European starling

TIMALIIDAE	**Babblers**
Chamaea fasciata	wrentit
TROCHILIDAE	**Hummingbirds**
Selasphorus sasin	Allen's hummingbird
Calypte anna	Anna's hummingbird
TROGLODYTIDAE	**Wrens**
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	house wren
TYRANNIDAE	**Tyrant Flycatchers**
Sayornis nigricans	black phoebe
Tyrannus vociferans	Cassin's kingbird
Sayornis saya	Say's phoebe

MAMMALIA

MAMMALS

CANIDAE	**Foxes, Wolves, & Allies**
* *Canis familiaris*	domestic dog
Canis latrans	coyote
CRICETIDAE	**Rats, Mice, Voles, & Relatives**
Neotoma fuscipes	dusky-footed woodrat
LEPORIDAE	**Hares**
Sylvilagus bachmani	brush rabbit
Sylvilagus audubonii	desert cottontail
GEOMYIDAE	**Pocket Gophers**
Thomomys bottae	Botta's pocket gopher
SCIURIIDAE	**Squirrels**
Otospermophilus beecheyi	California ground squirrel
SUIDAE	**Pigs, Hogs, & Boars**
* *Sus scrofa*	feral pig

APPENDIX C

Phase One Assessment for the Los Angeles Pocket Mouse

ENVIRA
Aquaculture Fisheries Environmental
P.O. Box 2612, Ramona, California, USA 92065
Phone 619-885-0236 E-mail PHVERGNE@AOL.COM

December 9, 2020

Subject: Phase One Assessment for the Los Angeles Pocket mouse (Perognathus longimembris brevinasus)-[LAPM] on the Beaumont Potrero proposed development project.

A phase one assessment for the Los Angeles pocket mouse was performed for the proposed Beaumont Potrero Development Project and Annexation Area (Figure 1). The survey was performed on December 8, 2020 between the hours of 11:00 Am and 3:00 PM. The entire project footprint area was covered by walking transects.

Field surveys for the Los Angeles pocket mouse (Perognathus longimembris brevinasus) [LAPM] were performed by Mr. Philippe Vergne of ENVIRA who holds a U.S. Fish and Wildlife Service permit to trap and handle Stephens' and San Bernardino Kangaroo rats, Pacific Pocket mouse, and to conduct field studies on sensitive small mammals in Southern California (TE-831207-4), a California Department of Fish and Wildlife (CDFW) Memorandum of Understanding for the above mentioned species and the Mohave ground squirrel, Los Angeles pocket mouse, Palms Springs pocket mouse, Palm Springs ground squirrel, white-eared pocket mouse, Jacumba pocket mouse, north-western San Diego pocket mouse, and the Dulzura pocket mouse, and a current CDFW scientific collection permit.

Los Angeles Pocket Mouse

The LAPM (*Perognathus longimembris brevinasus*) is one of two pocket mice found in this area of Riverside County (Williams 1986). Both the LAPM and the northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) occupy similar habitats, but the northwestern San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the LAPM is described as being confined to lower elevation grasslands and coastal sage scrub habitats, in areas with soils composed of fine sands (Williams 1986). This species prefers habitat similar to that of the Stephens's kangaroo rat and SBKR. It occurs in open sandy areas in the valley and foothills of southwestern California (Hall 1981).

LAPM, like other subspecies of *Perognathus longimembris*, are granivorous rodents and specialize on grass and scrub seeds but will take insects when available (French 1999; Meserve 1976). Pocket mice possess external, fur-lined cheek pouches used in the collecting and caching of seeds. Seeds are cached for use during the colder months of the year.

They spend most of their foraging time in or near bushes, scrubs, rock crevices, or other sources of cover. The LAPM is primarily nocturnal and exhibits a distinct seasonal pattern in surface activity. During colder months the pocket mouse may enter into torpor (dormancy) and not engage in surface activity. This species may enter torpor as early as the end of September;

the exact date may depend on the nightly low temperatures, and the availability of food.

At some point when surface conditions are very cold and food is scarce, the animal cannot meet its energy needs by foraging and thus must shut down surface activity to survive the winter. LAPM must then survive on the food they have cached (Richman and Price 1993). LAPM emerge when the surface ground temperatures are higher than the surrounding ground temperature in their burrows (French 1999).

The LAPM is listed as a California Species of Concern by the CDFW.

Figure One Beaumont Potrero Site Boundaries

Project Findings

No sign attributable to the LAPM was observed within the project boundaries.

The warehouse portion of the property is covered by dense grasses and limited remnant scrub. The soils are loams and clay and generally unsuitable for LAPM occupancy. Sandy areas within the small deeply incised washes is shallow (less than an inch) probably originated from sheet flow and covers hard clay soils. Typical sand loving plants associated with preferred LAPM habitat such as California croton, and san verbena do not occur on site.

Disturbed Annual Grasslands and loam and clay soils in warehouse area

Deeply Incised un-named drainage with clay soils

The portion of the proposed Annexation area located north of 4th Street (projected) consists of hilly terrain with open scrub and loamy/clay soils in the southern half; and flatter dense disturbed annual grasslands on loam/clay soils on the northern half. No suitable LAPM habitat was found within or adjacent to these areas.

Looking down on Fourth Street from northern portion of Proposed Annexation Area

Looking southwest across proposed northern portion of Proposed Annexation Area

That portion of the proposed Annexation area located south of Fourth Street was trapped by ENVIRA about seven years ago, the targeted species was the Stephens' kangaroo rat. At that time no LAPM were captured. The habitat within that area is not suitable for LAPM occupancy. The drainage is overgrown, adjacent soils are clay loams.

Cooper Creek

Soils adjacent to Cooper Creek. Note Clay clumps in soil

It is our professional opinion that suitable LAPM habitat does not occur on site and that LAPM will not be impacted from the proposed project implementation.

APPENDIX D

Jurisdictional Delineation Report

GLENN LUKOS ASSOCIATES
Regulatory Services

March 17, 2021

Cortland Armour
Armour Properties
3990 Westerly Place, Suite 140
Newport Beach, CA 92660

SUBJECT: Jurisdictional Delineation of the Potrero Logistics Center Warehouse Project in the City of Beaumont, Riverside County, California

Dear Mr. Armour:

This letter report summarizes our preliminary findings of U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW) jurisdiction for the above-referenced property.[1]

The Potrero Logistics Center Warehouse Project (Project) in the City of Beaumont, Riverside County, California [Exhibit 1], comprises approximately 66 acres and contains two blue-line drainages (as depicted on the U.S. Geological Survey (USGS) topographic map El Casco, California [dated 1967 and photorevised in 2015]) [Exhibit 2]. On December 9, 2020, regulatory specialists of Glenn Lukos Associates, Inc. (GLA) examined the Project site to determine the presence and limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), (2) Regional Board jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC), and (3) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. Enclosed are 200'-scale maps [Exhibits 3A, 3B, and 3C] that depict the areas of Corps, Regional Board and CDFW jurisdiction. Photographs to document the topography, vegetative communities, and general widths of each of the waters are provided as Exhibit 4. Wetland data sheets are attached as Appendix A.

Corps jurisdiction at the site totals approximately 1.22 acres, all of which consist of federal wetlands. A total of 1,692 linear feet of streambed is present.

Regional Board jurisdiction at the site totals approximately 2.52 acres, of which 1.22 acres consist of State wetlands. Of the total 2.52 acres, 1.22 acres comprise Corps jurisdiction as the

[1] This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations and written policy and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries.

remaining 1.30 acres represent Regional Board jurisdiction only. A total of 3,880 linear feet of streambed is present.

CDFW jurisdiction at the site totals approximately 7.68 acres, of which approximately 6.33 acres consist of riparian habitat. A total of 3,880 linear feet of stream is present.

I. METHODOLOGY

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the property, the previously cited USGS topographic map, and a soils map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity and/or wetland vegetation, soils, and hydrology. Where applicable, reference was made to the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (OWHM Manual)[2] to identify the width of Corps jurisdiction and suspected federal wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[3] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement).[4] Reference was also made to the 2019 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Board Wetland Definition and Procedures) to identify suspected State wetland habitats.[5] While in the field the potential limits of jurisdiction were recorded with a sub-meter Trimble GPS device in conjunction with a color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

The National Cooperative Soil Survey (NCSS) has mapped the following soil types as occurring in the general vicinity of the Project site and are included on Exhibit 5 (Soils Map):

- Badland (BaG);
- Greenfield sandy loam, 2 to 8 percent slopes, eroded (GyC2);
- Placentia fine sandy loam, 5 to 15 percent slopes, eroded (PlD);

[2] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States
[3] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.
[4] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[5] State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

- Ramona Sandy Loam, 2 to 5 percent slopes, eroded (RaB2);
- Riverwash (RsC);
- San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded (SeD2);
- San Emigdio loam, 2 to 8 percent slopes (SgC); and
- Terrace escarpments (TeG).

The Badland (BaG), Placentia fine sandy loam, 5 to 15 percent slopes, eroded (PlD), and Riverwash (RsC) soils are considered hydric soils per the Hydric Soil Lists for Western Riverside County if they support the following:

- inclusion of an unnamed ponded depression;
- soils that are frequently ponded for long duration or very long duration during the growing season; and
- soils that are seasonally flooded or ponded.

It is important to note that under the Arid West Region Supplement, the presence of mapped hydric soils is no longer dispositive for the presence of hydric soils. Rather, the presence of hydric soils must now be confirmed in the field. As noted, wetland datasheets are provided in Appendix A.

II. JURISDICTION

A. 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), pursuant to the *Navigable Waters Protection Rule*[6] (NWPR), as:

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

(1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;

(2) Tributaries;

[6] U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

(3) Lakes and ponds, and impoundments of jurisdictional waters; and
(4) Adjacent wetlands.

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

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

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

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

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

- 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 Arid West 2016 Regional Wetland Plant List[7],[8]);

- 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 Wetland 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.

B. Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[9] and waters of the

[7] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.
[8] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.
[9] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S.

State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

1. State Wetland Definition

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

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[10] *and*
3. *Artificial wetlands*[11] *that meet any of the following criteria:*

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

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

[11] Artificial wetlands are wetlands that result from human activity.

a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
b. Specifically identified in a water quality control plan as a wetland or other water of the state;
c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[12]

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

[12] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board's authority to issue or waive waste discharge requirements or take other actions as applicable.

C. California Department of Fish and Wildlife

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

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

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

III. RESULTS

The Project site contains three features described herein as Drainage A, Drainage A-1, and Cooper’s Creek. Drainage A is an ephemeral drainage that enters the northeast portion of the site and flows westerly across the site. Drainage A-1 is an ephemeral tributary to Drainage A that begins in the eastern portion of the site and confluences with Drainage A in the central portion of the site. Drainage A is tributary to Cooper’s Creek, which is a perennial creek dominated with riparian and wetland vegetation. Cooper’s Creek flows in a general east to northwest direction through the southern portion of the Project site and is one of the main southern tributaries to San Timoteo Creek. A summary of each feature as it pertains to Corps, Regional Board, and CDFW potential jurisdiction within the Project site is discussed below.

A. Corps Jurisdiction

Corps jurisdiction associated with the Project site totals approximately 1.22 acres of waters of the United States, all of which consist of federal wetlands (1,692 linear feet).

Corps jurisdiction is limited to Cooper's Creek, a perennial stream. Drainage A and Drainage A-1 are ephemeral streams that flow only in direct response to precipitation (e.g., rain). Pursuant to the *Navigable Waters Protection Rule*, ephemeral features, including ephemeral streams, swales, gullies, rills, and pools are not considered waters of the U.S. regardless of the presence or absence of an OHWM. Tributaries must satisfy the flow conditions of the definition described in 33 U.S.C. 1251 et seq. and its implementing regulations (33 CFR Part 328.3). As a result, these features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA.

Table 1 below summarizes Corps jurisdictional waters associated with the Project site. A description of the Corps jurisdictional drainage feature associated with the Project site is outlined below. The boundaries of Corps jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3A].

1. Cooper's Creek

Corps jurisdiction associated with Cooper's Creek totals 1.22 acres, all of which consist of federal wetlands, and a total of 1,692 linear feet of perennial streambed. Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek.

During the field delineation, Cooper's Creek exhibited open flowing water approximately 8 to 12 feet in width and an active channel width of 15 to 40 feet, which was noted as the limits of the ordinary high water mark (OHWM).

Vegetation within the Project site associated with Cooper's Creek consisted of black willow (*Salix gooddingii*, FACW), polished willow (*Salix laevigata*, FACW), black walnut (*Juglans californica*, FACU), Fremont's cottonwood (*Populus fremontii*, FACW), and black elderberry (*Sambucus nigra*, FACU) as the dominant riparian canopy forming species. Dominant wetland vegetation within the riparian understory comprised of mule fat (*Baccharis salicifolia*, FAC), stinging nettle (*Urtica dioica*, FAC), Southern California grape (*Vitis girdiana*, FACU), and cattail (*Typha sp*., OBL).

Six representative sample plots (1-6) were assessed to obtain soil profiles, vegetation types, and the presence of hydrology on the banks of the creek adjacent to flowing water. As shown within Appendix A, all six sample plots met the criteria for hydrophytic vegetation. Sample plots 1, 3, and 5 also met the hydric soil and wetland hydrology indicators.

Table 1: Summary of Corps Jurisdiction

Drainage Name	Corps Non-Wetland Waters (acres)	Corps Jurisdictional Wetlands (acres)	Total Corps Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	1.22	1.22	1,692
Total	**0**	**1.22**	**1.22**	**1,692**

B. Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction associated with the Project totals approximately 2.52 acres, of which 1.22 acres consist of State wetlands and 1.30 acres consist of non-wetland State waters. This includes 1,692 linear feet of wetland stream and 2,187 linear feet of ephemeral, non-wetland stream.

Regional Board jurisdiction includes Cooper's Creek, which as stated above, is considered a water of the U.S. and subject to Corps jurisdiction under Section 404 of the CWA. Since this feature is considered waters of the U.S., it is subject to Regional Board jurisdiction under Section 401 of the CWA.

Drainages A and A-1 are characterized as ephemeral drainage features that convey surface water only in direct response to precipitation (e.g., rain) and do not meet the criteria for regulation by the Corps under Section 404 of the CWA. Since ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA, these features are also not subject to Regional Board jurisdiction pursuant to Section 401 of the CWA. However, since these features convey surface flow with the potential to support beneficial uses, they are considered to be waters of the State that would be regulated by the Regional Board pursuant to Section 13260 of the California Water Code (CWC)/the Porter-Cologne Act.

Table 2 below summarizes Regional Board jurisdictional waters associated with the Project site. A description of the Regional Board jurisdictional drainage features associated with the Project site is outlined below. The boundaries of Regional Board jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3B].

1. Cooper's Creek

Regional Board jurisdiction associated with Cooper's Creek totals 1.22 acres, all of which is State wetland waters. A total of 1,692 linear feet of streambed is present. As stated above, Cooper's Creek is considered a wetland water of the U.S. that is subject to both Corps and Regional Board jurisdictions under Sections 404 and 401 of the CWA.

Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek.

During the field delineation, Cooper's Creek exhibited open flowing water approximately 8 to 12 feet in width and an active channel width of 15 to 40 feet.

Vegetation within the Project site associated with Cooper's Creek consisted of black willow, polished willow, black walnut, Fremont's cottonwood, and black elderberry as the dominant riparian canopy forming species. Dominant wetland vegetation within the riparian understory comprised of mule fat, stinging nettle, Southern California grape, and cattail.

2. Drainage A

Regional Board jurisdiction associated with Drainage A totals 1.22 acres, all of which consist of non-wetland waters of the State. A total of 1,489 linear feet of streambed is present. This feature is considered a water of the State that is subject to Section 13260 of the CWC/the Porter-Cologne Act.

Drainage A enters the northeastern portion of the Project site from a 48-inch corrugated metal pipe culvert that runs under the newly constructed Potrero Boulevard, as depicted on Exhibit 3B. From the culvert, Drainage A follows a natural east to southwest path for approximately 1,489 feet until it exits the Project site. The drainage has been modified as a result of receiving stormwater flows from upstream development and Potrero Boulevard, including becoming larger in width and more incised. It exhibited characteristics of a low-flow channel, sediment size differences, and smaller braided channels throughout most of its length. The upstream portion of Drainage A is approximately 11 feet in width and then widens to an approximately 100-foot active channel. Following the topography of the site to the southwest, Drainage A's width decreases to approximately 30 feet prior to its conveyance with Drainage A-1 in the central portion of the Project site and becomes incised to 6 feet in width for the remaining length until it exits the site.

Vegetation associated with Drainage A is dominated by a mix scrub oak chaparral and intermittent riparian vegetation. Vegetation species consist of scrub oak (*Quercus berberidifolia*, NL), mule fat, black elderberry, California buckwheat (*Eriogonum fasciculatum var. polifolium*, FACU), Russian thistle (*Salsola tragus*, FACU), and red brome (*Bromus madritensis ssp. rubens*, UPL).

3. Drainage A-1

Regional Board jurisdiction associated with Drainage A-1 totals 0.08 acre, all of which consists of non-wetland waters of the State. A total of 699 linear feet of streambed is present. This feature is considered a water of the State that is subject to Section 13260 of the CWC/the Porter-Cologne Act.

Drainage A-1 originates on the Project site within the eastern boundary. Based on historic aerial images and topographic maps, Drainage A-1 occurs as two erosional feature segments that have become incised ephemeral channels over time. As depicted on Exhibit 3B, Drainage A-1 begins in the eastern portion of the Project site and continues in a west-northwest direction for approximately 699 feet until it terminates into Drainage A.

The upstream portion of Drainage A-1 is approximately 6 feet in width on the northern segment and 5 feet in width within the southern segment. These segments continue down slope for approximately 150 feet each until they converge. Average widths in the downstream sections of Drainage A-1 are approximately 7 feet wide as the drainage continues into Drainage A.

Vegetation associated with Drainage A-1 is a mix scrub oak chaparral and Riversidean sage scrub plant communities. Dominant species consist of scrub oak, chamise (*Adenostoma fasciculatum*, UPL), California sage brush (*Artemisia californica*, UPL), doveweed (*Croton setiger*, UPL), California buckwheat, and non-native annuals, such as summer mustard (*Hirschfeldia incana*, NL), Russian thistle, and red brome.

Table 2: Summary of Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	1.22	1.22	1,692
Drainage A	1.22	0	1.22	1,489
Drainage A-1	0.08	0	0.08	699
Total	**1.30**	**1.22**	**2.52**	**3,880**

C. CDFW Jurisdiction

CDFW jurisdiction associated with the Project totals approximately 7.68 acres and includes all areas within Corps and/or Regional Board jurisdiction. Of this total, 6.33 acres consist of riparian stream and 1.35 acres consist of non-riparian stream. A total of 3,880 linear feet of stream is present. This includes 1,692 linear feet of riparian stream and 2,188 linear feet of ephemeral, non-riparian stream.

As stated above, the Project site contains one perennial feature (Cooper's Creek) and two ephemeral drainage features (Drainage A and A-1). Each of these features exhibited flow sign with the presence of a bed and bank. Additionally, the entirety of Cooper's Creek includes a riparian stream as does portions of Drainage A. As such, these features are subject to CDFW jurisdiction under Section 1602 of the Fish and Game Code.

Table 3 below summarizes CDFW jurisdictional waters associated with the Project site. A description of the CDFW jurisdictional drainage features associated with the Project site is outlined below. The boundaries of CDFW jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3C].

1. Cooper's Creek

CDFW jurisdiction associated with Cooper's Creek totals 6.21 acres, all of which consists of riparian stream. A total of 1,692 linear feet of riparian stream is present. Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek. Cooper's Creek is a perennial stream that exhibits a defined bed, bank, and channel. As shown on Exhibit 3C, Cooper's Creek contains an average riparian canopy width of approximately 150 feet throughout its length within the Project's southern boundary.

Riparian vegetation associated with the creek included black willow, polished willow, Fremont's cottonwood, and black elderberry as the dominant riparian canopy-forming species. Mule fat, stinging nettle, Southern California grape, and cattail comprised the dominant wetland vegetation within the riparian understory.

2. Drainage A

CDFW jurisdiction associated with Drainage A totals 1.35 acres, of which 0.12 acre consists of riparian stream. A total of 1,489 linear feet of stream is present. This feature exhibited ephemeral

flow sign with the presence of a bed, bank, channel, and is sporadically vegetated with riparian vegetation.

Drainage A enters the northeastern portion of the Project site from a 48-inch corrugated metal pipe culvert that runs under the newly constructed Potrero Boulevard, as depicted on Exhibit 3C. From the culvert, Drainage A follows a natural east to southwest path for approximately 1,489 feet until it exits the Project site. The drainage has been modified as a result of receiving stormwater flows from upstream development, including becoming larger in width and more incised. It exhibited characteristics of a low-flow channel, sediment size differences, and smaller braided channels throughout most of its length. The upstream portion of Drainage A is approximately 11 feet in width and then widens to an approximately 100-foot active channel. Following the topography of the site to the southwest, Drainage A's width decreases to approximately 30 feet prior to its conveyance with Drainage A-1 in the central portion of the Project site and becomes incised to 6 feet in width for the remaining length until it exits the site.

Vegetation associated with Drainage A is dominated by a mix scrub oak chaparral and intermittent riparian vegetation. Vegetation species consist of scrub oak, mule fat, black elderberry, California buckwheat, Russian thistle, and red brome.

3. Drainage A-1

CDFW jurisdiction associated with Drainage A-1 totals 0.12 acre, all of which consists of non-riparian stream. A total of 699 linear feet of stream is present. This feature exhibited ephemeral flow sign with the presence of a bed, bank, and channel.

Drainage A-1 originates on the Project site within the eastern boundary. Based on historic aerial images and topographic maps, Drainage A-1 occurs as two erosional feature segments that have become incised features with defined bed and banks. As depicted on Exhibit 3C, Drainage A-1 begins in the eastern portion of the Project and continues in a west-northwest direction for approximately 699 feet until it converges with Drainage A. The upstream portion of Drainage A-1 is approximately 6 feet in width on the northern segment and 5 feet in width within the southern segment. These segments continue down slope for approximately 150 feet until they converge. Average widths in the downstream sections of Drainage A-1 are approximately 7 feet wide as the drainage continues into Drainage A.

Vegetation associated with Drainage A-1 consist of scrub oak, chamise, California sage brush, doveweed, California buckwheat, summer mustard, Russian thistle, and red brome.

Table 3: Summary of CDFW Jurisdiction

Drainage Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	6.21	6.21	1,692
Drainage A	1.23	0.12	1.35	1,489
Drainage A-1	0.12	0	0.12	699
Total	**1.35**	**6.33**	**7.68**	**3,880**

If you have any questions about this letter report, please contact Lexi Kessans at (949) 837-0404.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

Chris Waterston
Regulatory Specialist

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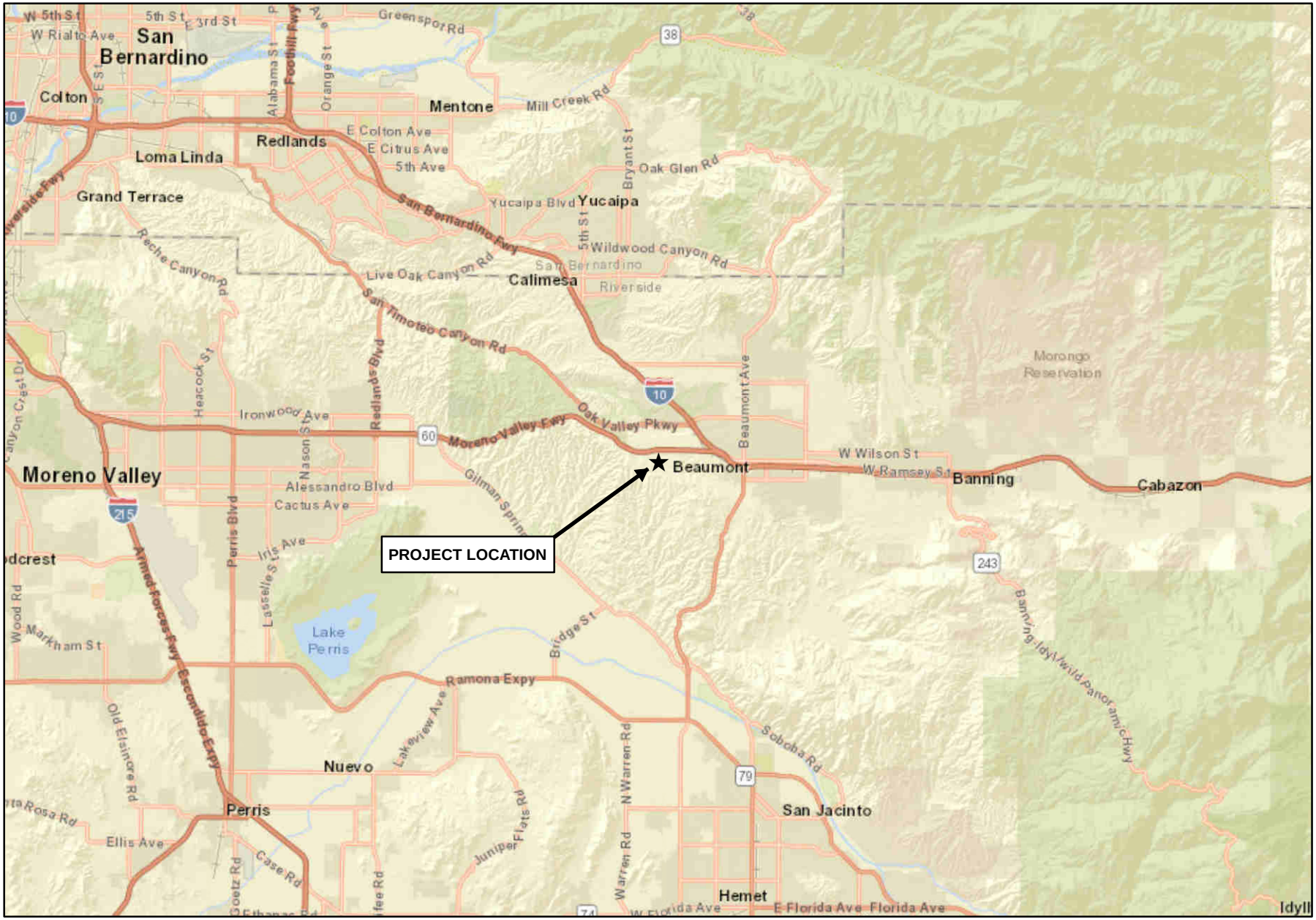
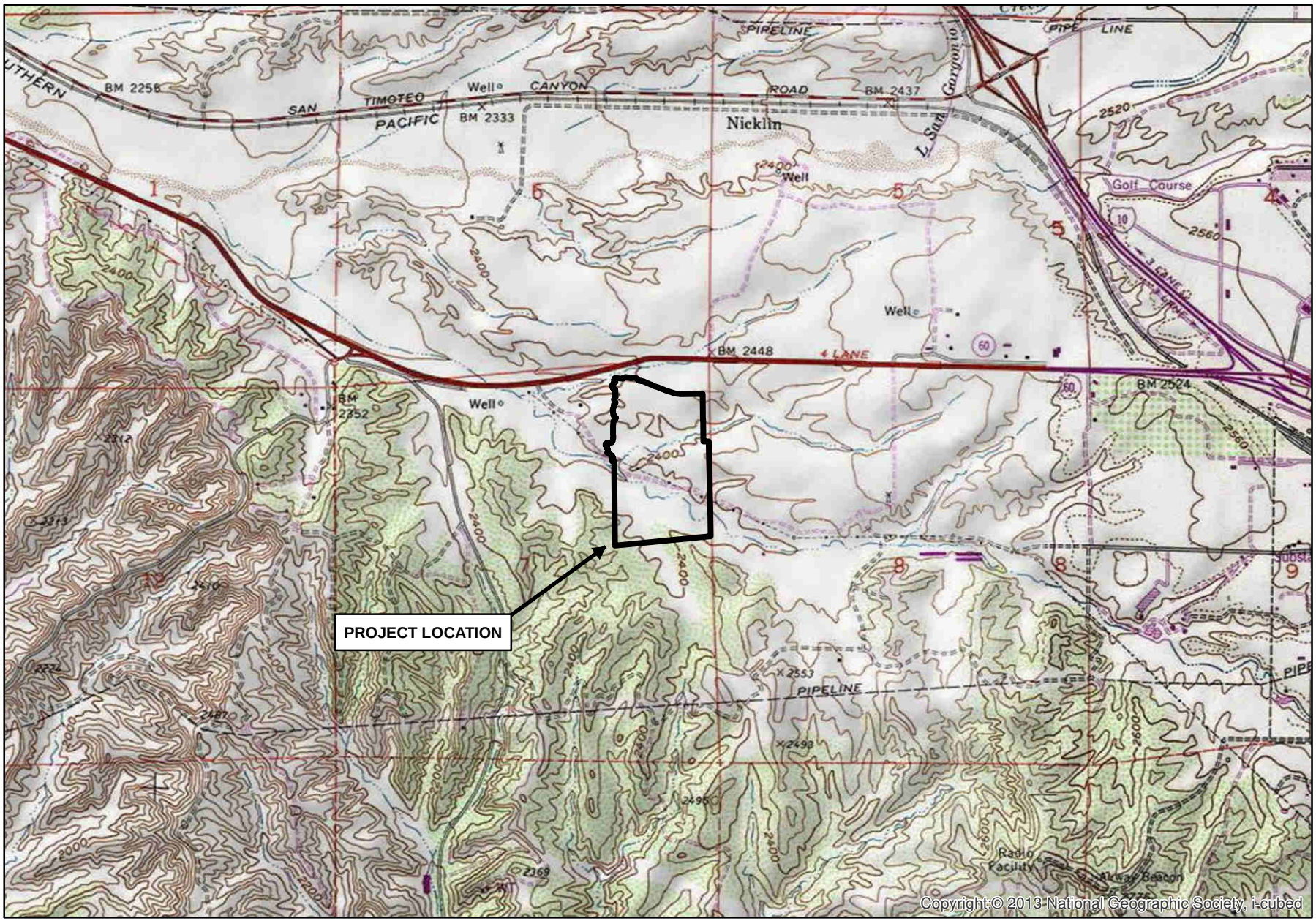


POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS El Casco, CA quadrangle

N

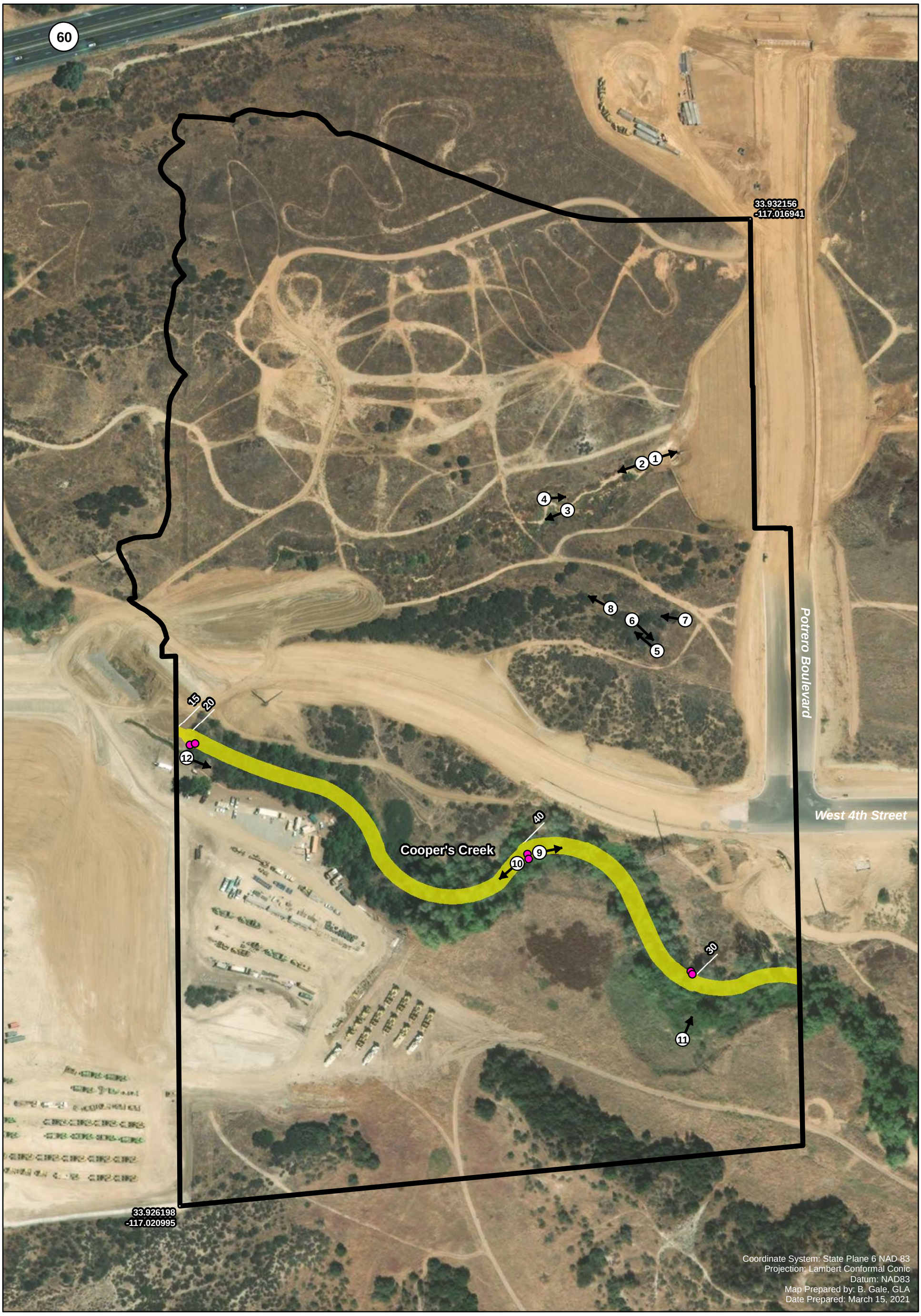
0 1,000 2,000 4,000 Feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project Site

Wetland Waters of U.S.

6 Width of Drainage in Feet

Sample Plot

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Corps Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3A

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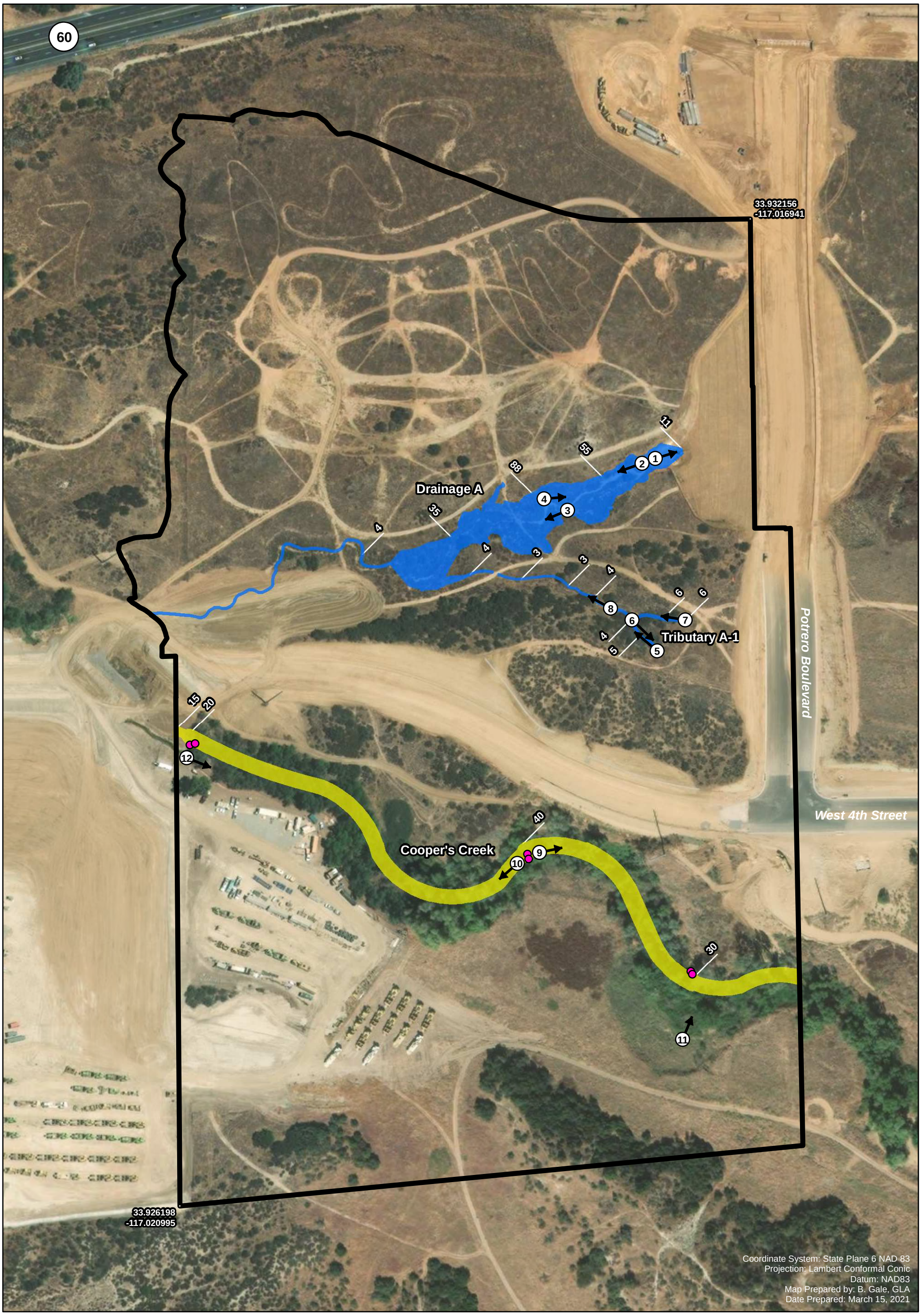

Project Site

Wetland Waters of U.S./State

Non-Wetland Waters of the State

6 Width of Drainage in Feet

Sample Plot

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3B

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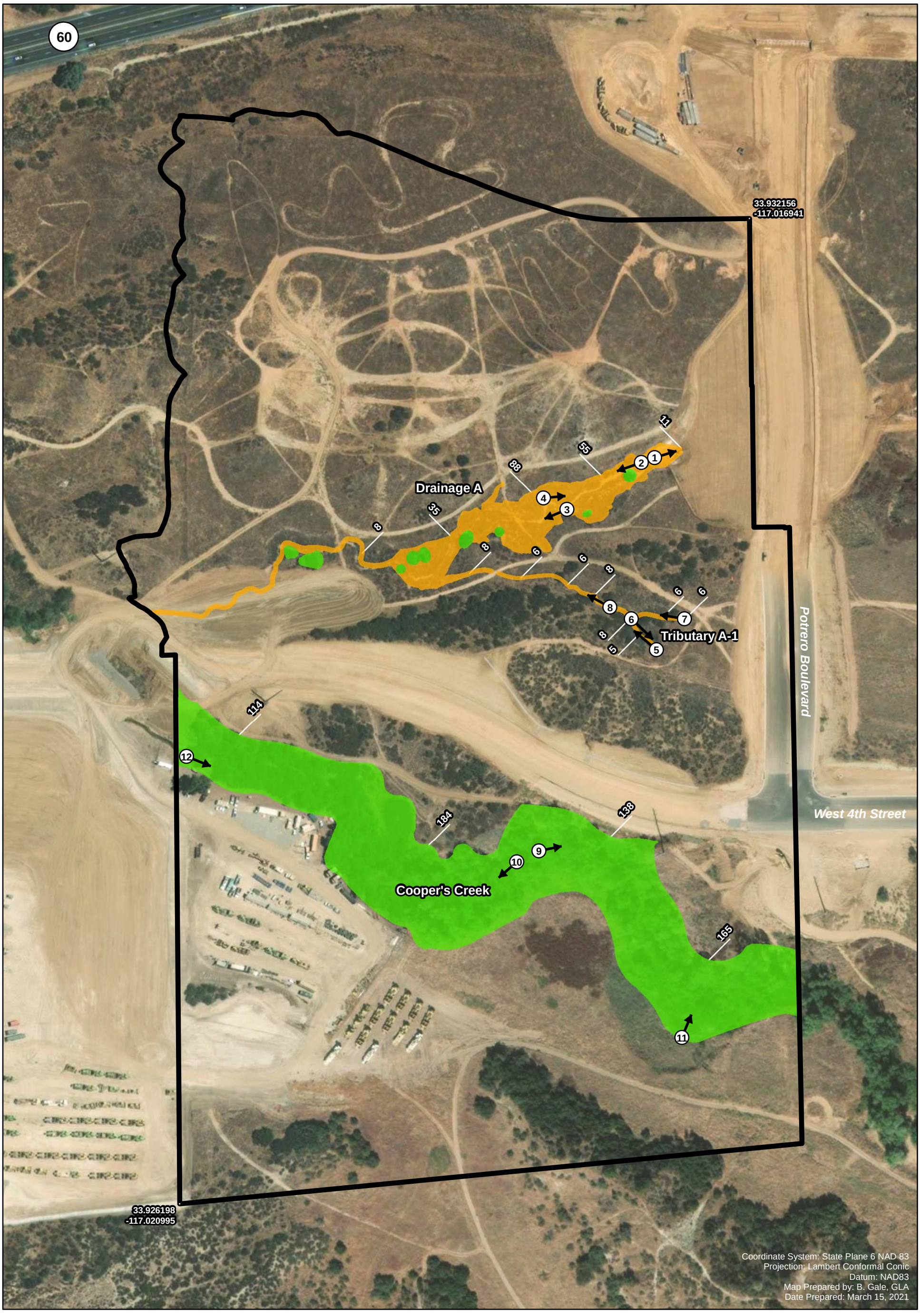

Project Site

CDFW Riparian Stream

CDFW Non-Riparian Stream

6 Width of Drainage in Feet

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3C

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Photograph 1: A view of Drainage A as it enters the site through a culvert under Potrero Blvd. The photo is facing east.

Photograph 2: A view of Drainage A in the eastern portion of the site. Note the evidence of recent flow and a stand of riparian trees (Elderberry) in the background. The photo is facing west.

Photograph 3: A view of Drainage A in the central portion of the site. Note the upland sage scrub vegetation and the beginning of channel incision. The photo is facing southwest.

Photograph 4: A view of Drainage A in the central portion of the site. Note the severe channel incision. The photo is facing east.

Photograph 5: A view of the southern segment of Drainage A-1. Note the coverage of upland vegetation and scrub oak. The photo is facing northwest.

Photograph 6: A view of Drainage A-1 as the southern and northern segments converge. The photo is facing southeast.

Photograph 7: A view of the northern segment of Drainage A-1. Note the similar upland vegetation as photo 5. The photo is facing west.

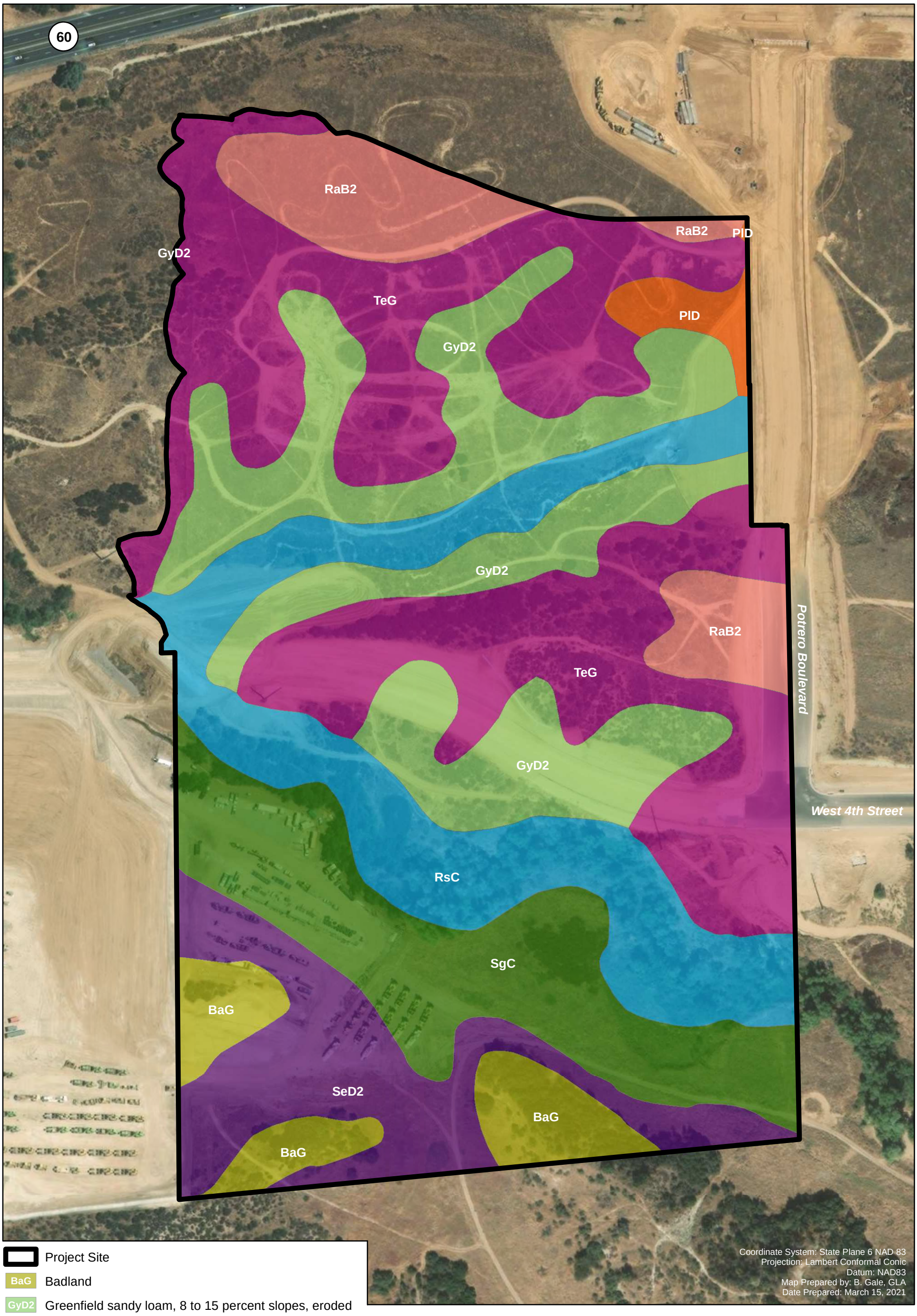
Photograph 8: A view of Drainage A-1. Note the incised channel and upland scrub oak vegetation. The photo is facing west.

Photograph 9: A view of Cooper's Creek in the southern portion of the site. Note the active channel width extends out from the water level shown here. The photo is facing east.

Photograph 10: A view of Cooper's Creek. Note the wetland vegetation and riparian canopy. The photo is facing southwest.

Photograph 11: A view of the dense riparian vegetation associated with Cooper's Creek. The photo is facing north.

Photograph 12: A view of the riparian and wetland vegetation associated with Cooper's Creek at the western boundary of the site.



- Project Site
- BaG — Badland
- GyD2 — Greenfield sandy loam, 8 to 15 percent slopes, eroded
- PlD — Placentia fine sandy loam, 5 to 15 percent slopes
- RaB2 — Ramona sandy loam, 2 to 5 percent slopes, eroded
- RsC — Riverwash
- SeD2 — San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded
- SgC — San Emigdio loam, 2 to 8 percent slopes
- TeG — Terrace escarpments

N

0 100 200 400

Feet

1 inch = 200 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: March 15, 2021

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 5

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\SoilsGIS\1275-6_Soils.mxd

APPENDIX A
WETLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
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- ☐ Sandy Mucky Mineral (S1)
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- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
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- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

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Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
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	= Total Cover		
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5.			
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3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
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FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
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[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

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- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
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- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
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- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX E

2020-2021 Wet Season Survey Results for Listed Branchiopods

GLENN LUKOS ASSOCIATES
Regulatory Services

May 27, 2021

Ms. Stacey Love
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

SUBJECT: Submittal Requirements for 2020-2021 Wet Season Survey for Listed Branchiopods Conducted for the Potrero Logistics Center Warehouse Project, City of Beaumont, Riverside County, California

Dear Ms. Love:

This letter report documents the results of a wet season survey conducted by Glenn Lukos Associates, Inc. (GLA) for five seasonally ponded features at the Potrero Logistics Center Warehouse Project in the City of Beaumont. GLA biologist Kevin Livergood (TE-172638-2) conducted the wet season survey with the objective of determining the presence or absence of federally-listed Riverside fairy shrimp (*Streptocephalus woottoni*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), and vernal pool fairy shrimp (*Branchinecta lynchi*).

As a result of below-average rainfall, the identified features did not exhibit ponding suitable for fairy shrimp during the 2020-2021 wet season. Due to the lack of suitable ponding, survey results are inconclusive for this survey season.

I. SITE LOCATION AND DESCRIPTION

The project site is located in the City of Beaumont, Riverside County, California [Exhibit 1 – Regional Map] within Section 7, Township 3 South, and Range 1 West of the El Casco, California USGS 7.5-minute quadrangle map [Exhibit 2 – Vicinity Map]. The project site is bounded by US 60 to the north, Potrero Road to the east, West 4th Street to the south, and new development to the west. Universal Transverse Mercator (UTM) coordinates approximately corresponding to the property are 498243 mE and 3754545 mN. The five depressional features that comprise the seasonal pool study area (Study Area) are identified on Exhibit 3 – Survey Area Map.

The approximate UTM coordinates of the features that were monitored for suitable ponding are:

- Feature 1: Zone 11 south; 498299.48 mE and 3754351.27 mN
- Feature 2: Zone 11 south; 498331.46 mE and 3754347.31 mN
- Feature 3: Zone 11 south; 498360.17 mE and 3754631.56 mN
- Feature 4: Zone 11 south; 498315.25 mE and 3754643.33 mN
- Feature 5: Zone 11 south; 498208.78 mE and 3754607.76 mN

II. METHODOLOGY

GLA biologist Kevin Livergood (TE-172638-2) submitted a request for authorization to conduct fairy shrimp surveys to the United States Fish and Wildlife Service (USFWS) Carlsbad field office on December 16, 2020. On January 4, 2021, the USFWS responded with authorization to proceed with wet and dry season sampling utilizing methods prescribed in the USFWS *Survey Guidelines for the Listed Large Branchiopods* (Survey Guidelines) dated November 13, 2017[1]. In accordance with the Survey Guidelines, site visits were conducted within 24 hours of rain events to determine whether features contained a minimum of three centimeters (cm) of ponding. Under typical conditions, sampling commences within seven days of initial ponding. However, due to below-average rainfall during the 2020-2021 wet season, the identified features did not exhibit ponding suitable for extended sampling for fairy shrimp.

The dates of ponding assessments and the weather conditions on site during the assessments are recorded on the included wet season datasheets [Appendix A]. Photographs were taken of the depressional features during the wet season survey period and are attached as Exhibit 4 – Site Photographs.

III. DESCRIPTION OF THE DEPRESSIONAL FEATURES

The Project Site contains five depressions that exhibit characteristics of seasonal ponding. These depressions are referenced as Features 1 through 5 on the attached Survey Area map and are described below.

Feature 1

Feature 1 is located on the southern end of the Survey Area. The feature occurs on a former hiking trail along a low topographical ridge that is now isolated as a result of permitted grading to the south and east. The dimensions of ponding were approximately 1 meter (m) by 1 m, with an average depth of 6 centimeters (cm). At maximum ponding, the feature is approximately 9

[1] USFWS. *Survey Guidelines for the Listed Large Branchiopods*, Revised: November 13, 2017.

cm deep. The ponded portion of the feature is unvegetated with native recruitment of California sagebrush (*Artemisia californica*) around the depression perimeter.

Feature 2

Feature 2 is located approximately 80 feet east of Feature 1 on the same isolated trail segment. The typical dimensions of ponding were approximately 1.5 m by 6 m, with an average depth of 10 cm. At maximum ponding, the feature is approximately 15 cm deep. The ponded portion of the feature is unvegetated. Vegetation adjacent to the feature is composed predominantly of California sagebrush.

Feature 3

Feature 3 is located in the northeast corner of the Survey Area. The feature is a slight depression on the south side of a former access road. The typical dimensions of ponding were approximately 0.5 m by 1 m, with an average depth of 5 cm. At maximum ponding, the feature is approximately 10-12 cm deep. The ponded portion of the feature is vegetated with non-native grasses (*Bromus* sp.) and wild oat (*Avena* sp.).

Feature 4

Feature 4 is located near the northern boundary of the Survey Area. The feature is a slight depression on the south side of a former access road. The typical dimensions of ponding were approximately 0.5 m by 1.5 m, with an average depth of 2.5 cm. At maximum ponding, the feature is approximately 7-8 cm deep. The ponded portion of the feature is vegetated with non-native grasses and wild oat.

Feature 5

Feature 5 is located east of Features 3 and 4 on the same access road as Features 3 and 4. The feature was identified after a late-season rain event. Prior to the storm, the location did not exhibit ponding. However, once it ponded off-highway vehicles created deep ruts in the otherwise shallow depression. The dimensions of ponding were approximately 3 m by 7 m, with an average depth of 15 cm. At maximum ponding the feature is approximately 20 cm deep. The depression is unvegetated.

IV. RESULTS OF WET SEASON SURVEY

As a result of below-average rainfall, the surveyed depressions did not exhibit ponding suitable for fairy shrimp sampling. Based on the hydrology observed during the 2020-2021 wet season,

Feature 5 exhibits characteristics most suitable for fairy shrimp. The duration of ponding observed at the other depressional features was less than seven days, which is insufficient for the development of special-status fairy shrimp. However, in years of average to above-average rainfall, all of the observed features are expected to sustain ponding greater than three centimeters deep. The duration of ponding is likely contingent on the frequency of rain-producing storm systems.

Table 1 indicates when site visits were conducted to assess ponding during the 2020-2021 wet season. Ponding depth is noted for depressions that exhibited inundation. The USFWS acknowledges three centimeters as the minimum ponding depth to initiate sampling for fairy shrimp. No fairy shrimp, common or listed, were observed during the 2020-2021 wet season.

Table 1: Wet Season Survey Dates and Results

Survey	Feature Name				
Date	**1**	**2**	**3**	**4**	**5**
12/30/20	Dry	<3cm	Dry	Dry	Dry
1/6/21	Dry	Dry	Dry	Dry	Dry
1/26/21	Dry	Dry	Dry	Dry	Dry
2/3/21	Dry	<3cm	Dry	Dry	5cm
2/9/21	Dry	Dry	Dry	Dry	Dry
3/12/21	6cm	10cm	<3cm	5cm	15cm
3/19/21	Dry	Dry	Dry	Dry	8cm
3/26/21	Dry	Dry	Dry	Dry	Dry

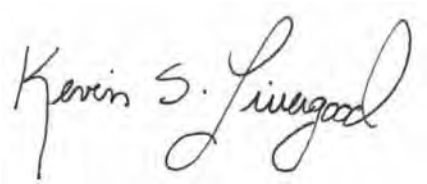
Due to the lack of rainfall, the 2020-2021 wet season survey results are inconclusive in determining the presence or absence of listed branchiopods at the Potrero Logistics Center Warehouse Project Site.

In order to complete the survey protocol requirements, it is recommended that dry season surveys be conducted in the summer of 2021, followed by wet season surveys during the 2021-2022 rainy season.

I certify that the information in this survey report and the attached exhibits fully and accurately represent my work. If you have any questions regarding this report, please contact me via email at klivergood@wetlandpermitting.com.

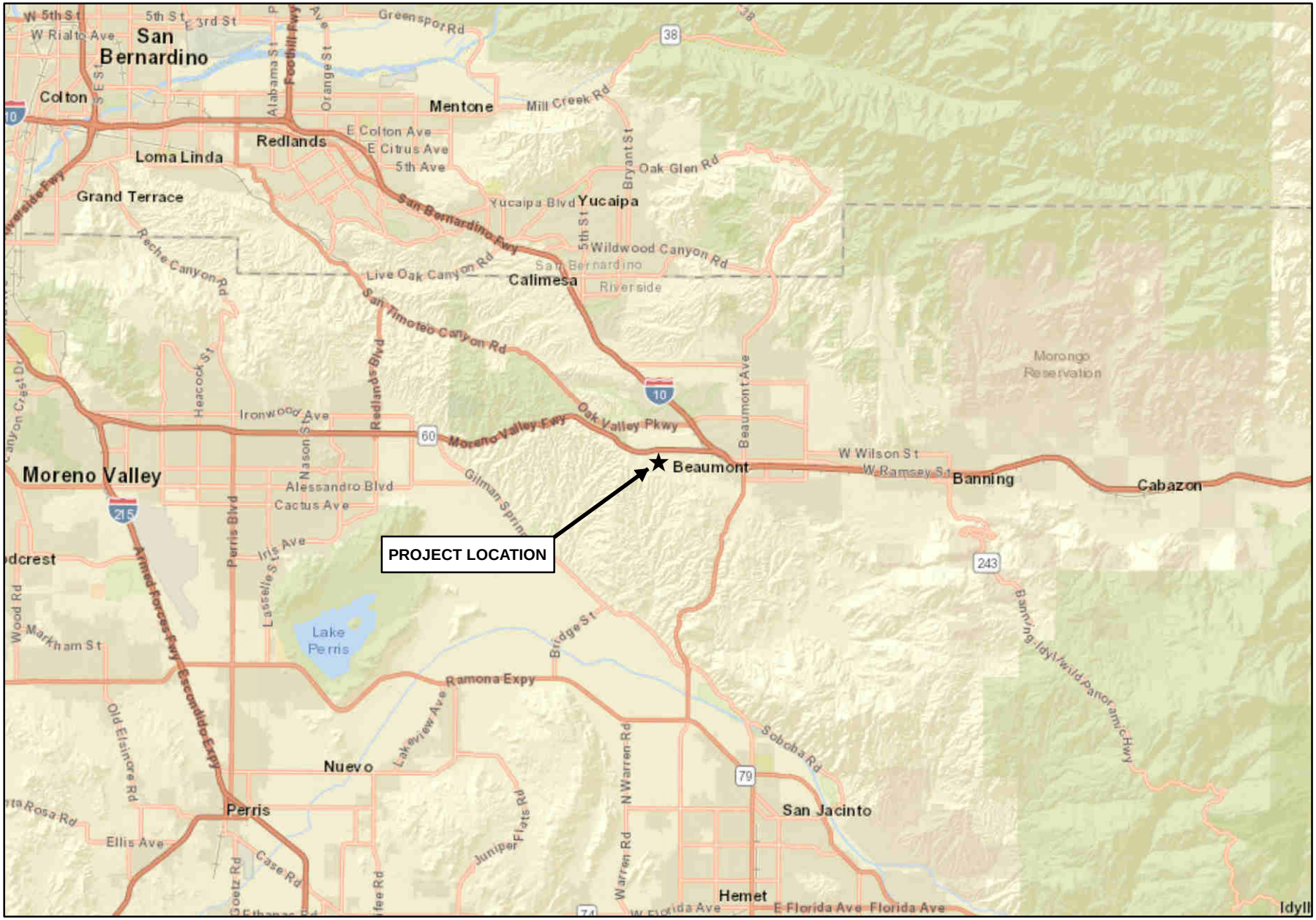
Sincerely,

GLENN LUKOS ASSOCIATES, INC.



Kevin Livergood
Biologist (TE-172638-2)

P:1275-6a.FairShrimp.wet2021.rpt

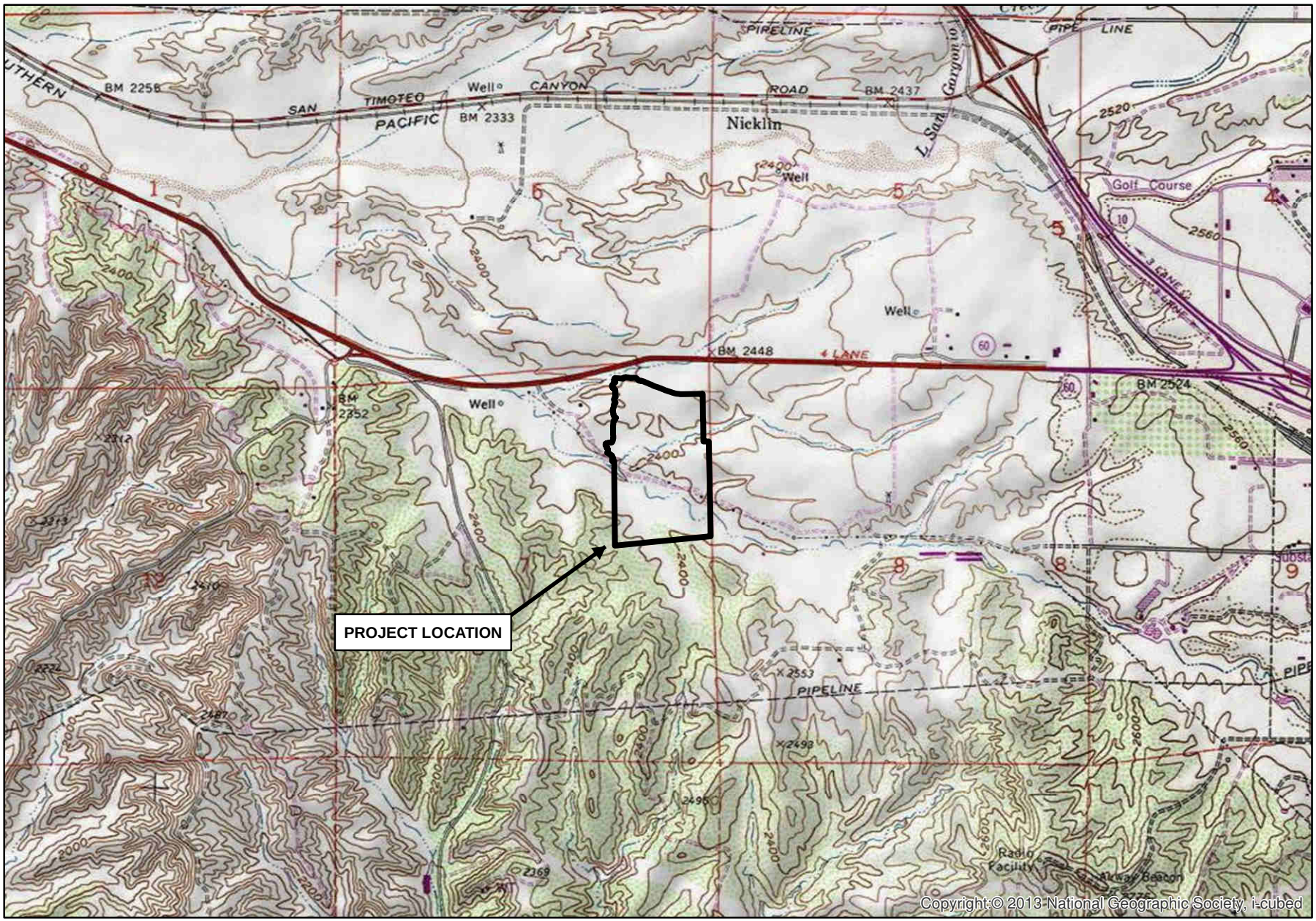


POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS El Casco, CA quadrangle

N

0 1,000 2,000 4,000 Feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

Project Site

Surveyed Feature

N

0 87.5 175 350

Feet

1 inch = 175 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: May 14, 2021

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Fairy Shrimp Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\FairyShrimpGIS\1275-6_FSSurveyArea.mxd

Photograph 1: View to the east of Feature 1 within 24 hours of a winter rain event. No ponding was observed, and no fairy shrimp were detected.
(UTM: 498299.48 mN, 3754351.27 mE Date: 12/30/20; K. Livergood)

Photograph 2: View to the east of Feature 1 within 24 hours of a spring rain event. No ponding was observed, and no fairy shrimp were detected.
(Date: 3/12/21; K. Livergood)

Photograph 3: View to the east of Feature 2 within 24 hours of a winter rain event. No fairy shrimp were detected.
(UTM: 498331.46 mN, 3754347.31186 mE Date: 12/30/20; K. Livergood)

Photograph 4: View to the east of Feature 2 within 24 hours of a spring rain event. No fairy shrimp were detected.
(UTM: 498331.46 mN, 3754347.31186 mE Date: 3/12/21; K. Livergood)

Photograph 5: View to the east of Feature 3 within 24 hours of a spring rain event. Very limited ponding was observed, and no fairy shrimp were detected.
(UTM: 498360.17 mN, 3754631.56 mE Date: 3/12/21; K. Livergood)

Photograph 6: View to the east of Feature 4 within 24 hours of a spring rain event. Limited ponding was observed, and no fairy shrimp were detected.
(UTM: 498315.25 mN, 3754643.33 mE Date: 3/12/21; K. Livergood)

Photograph 7: View to the east of Feature 5 within 24 hours of a spring rain event. No fairy shrimp were detected.
(UTM: 498208.78 mN, 3754607.76 mE Date: 3/12/21; K. Livergood)

Photograph 8: View to the west of Feature 5 after less than two weeks of ponding.
(Date: 3/23/21; K. Livergood)

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 11275-6POTR (Potrero)	**County:** Riverside	**Quad:** El Casco	**Township:** T3S	**Range:** R1W	**Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 12/30/20 | Time: 1130 | Weather Conditions: 63°F, clear, 7-10mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			Rain 12/28-12/29/20 1.20"
1		17.2	—	—		—												D	Damp, no ponding
2		17.2		2.5		1.5x1												D	
3		17.2	—	—		—												D,TT	Dry
4		17.2	—	—		—												D,TT	Dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 11275-6POTR (Potrero)	**County:** Riverside	**Quad:** El Casco	Township: T3S	Range: R1W	Section: 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 1/6/21 Time: 1030 Weather Conditions: 64°F, clear, 7-15g20 mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		17.7	–	–		–												D	Dry
2		17.7	–	–		–												D	Dry
3		17.7	–	–		–												D, TT	Dry
4		17.7	–	–		–												D, TT	Dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = dislurbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero)	County: Riverside	Quad: El Casco	Township: T3S	Range: R1W	Section: 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 1/26/21 Time: 1230 Weather Conditions: 43°F, 15% cc, 2-4 mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		6.1	–	–		–		–	–	–	–	–							Dry
2		6.1	–	–		–		–	–	–	–	–							Dry
3		6.1	–	–		–		–	–	–	–	–						D, RR	Dry
4		6.1	–	–		–		–	–	–	–	–						D, RR	Dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero) | **County:** Riverside | **Quad:** El Casco | **Township:** T3S | **Range:** R1W | **Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 2/3/21 | Time: 1145 | Weather Conditions: 63°F, 40% cc, 3-5 g 12

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		17.2	-	-		-		-	-	-	-	-			-			D, TT	DS
2		17.2	-	-		-		-	-	-	-	-			-			D, TT	DS
3		17.2	-	-	5-8	-	1x1	-	-	-	-	-			-			D, TT	DS
4		17.2	-	43cm	5.7	0.5 x 2	1x7	-	-	-	-	-			-			D, TT	
5		17.2	14.4	5	10	3x8	3x8	-	-	-	-	-			-			D, TT, AB	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero) | **County:** Riverside | **Quad:** El Casco | **Township:** T3S | **Range:** R1W | **Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 2/9/21 | Time: | Weather Conditions: 57°F, 60% cc, 3g9

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		15	–	–		–		–	–	–	–	–							Dry
2		15	–	–		–		–	–	–	–	–							Dry
3		15	–	–		–		–	–	–	–	–							Dry
4		15	–	–		–		–	–	–	–	–							Dry
5		15	–	–		–		–	–	–	–	–							Dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli).*
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero) | **County:** Riverside | **Quad:** El Casco | **Township:** T3S | **Range:** R1W | **Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 3/12/21 | Time: 1200 | Weather Conditions: 45°F Post-rain hydrology assessment

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		7.2	✓	6	8	1x1	1.5x2	–											Trail Depression
2		7.2	✓	10	15	1x10	2x8	–											Trail Depression
3		7.2	✓	25	7.5	1x1	1.5x2	–										D,TT	Road Rut Burrows
4		7.2	✓	5	10-12	.5x1.5	1x2	–										D,TT	Road Rut Burrows
5		7.2	✓	15	20	3x7	3x9	–										D,TT	Road rut Burrows

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-LPOTR (Potrero)	County: Riverside	Quad: El Casco	Township: T3S	Range: R1W	Section:

SURVEYOR / Permit Number: David Moskovitz (TE-084606-3)/Kevin Livergood (TE-172638-2)

Date: 3/19/21	Time: 1610	Weather Conditions: 72°F, 10%cc, 8-10mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher Information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1-Dry		22.2	–	–	8	–	1.5x2	–	–	–	–	–			–			D,TT	Dry
2-Dry		22.2	–	–	15	–	2x8	–	–	–	–	–			–			D,TT	Dry
3-Dry		22.2	–	–	7.5	–	1.5x2	–	–	–	–	–			–			D,TT	Dry
4-Dry		22.2	–	–	10-12	–	1x2	–	–	–	–	–			–			D,TT	Dry
5		22.2	18.8	8	20	2x5	3x9	–	–	–	–	–			–			D,TT,AB	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

3.5 veg: Hordeum, R.S. Clover, dove weed
Br. diandrus

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: 1275-6POTR (Potrero) | **County:** Riverside | **Quad:** El Casco | **Township:** T3S | **Range:** R1W | **Section:** 7

SURVEYOR / Permit Number: Kevin Livergood (TE-172638-2)

Date: 3/26/21 | Time: 1335 | Weather Conditions: 54°F, 15% cc, 4-5mph

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1-Dry		12.2	–	–		–		–	–	–	–	–			–			D,TT	Dry
2-Dry		12.2	–	–		–		–	–	–	–	–			–			D,TT	Dry
3-Dry		12.2	–	–		–		–	–	–	–	–			–			D,TT	Dry
4-Dry		12.2	–	–		–		–	–	–	–				–			D,TT	Dry
*5-Dry		12.2	–	–	20	–	3x9	–	–	–	–				–			D,TT	Dry
*no crustaceans or FS or other inverts.																			

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

APPENDIX B

GLENN LUKOS ASSOCIATES
Regulatory Services

March 17, 2021

Cortland Armour
Armour Properties
3990 Westerly Place, Suite 140
Newport Beach, CA 92660

SUBJECT: Jurisdictional Delineation of the Potrero Logistics Center Warehouse Project in the City of Beaumont, Riverside County, California

Dear Mr. Armour:

This letter report summarizes our preliminary findings of U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW) jurisdiction for the above-referenced property.[1]

The Potrero Logistics Center Warehouse Project (Project) in the City of Beaumont, Riverside County, California [Exhibit 1], comprises approximately 66 acres and contains two blue-line drainages (as depicted on the U.S. Geological Survey (USGS) topographic map El Casco, California [dated 1967 and photorevised in 2015]) [Exhibit 2]. On December 9, 2020, regulatory specialists of Glenn Lukos Associates, Inc. (GLA) examined the Project site to determine the presence and limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), (2) Regional Board jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC), and (3) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. Enclosed are 200'-scale maps [Exhibits 3A, 3B, and 3C] that depict the areas of Corps, Regional Board and CDFW jurisdiction. Photographs to document the topography, vegetative communities, and general widths of each of the waters are provided as Exhibit 4. Wetland data sheets are attached as Appendix A.

Corps jurisdiction at the site totals approximately 1.22 acres, all of which consist of federal wetlands. A total of 1,692 linear feet of streambed is present.

Regional Board jurisdiction at the site totals approximately 2.52 acres, of which 1.22 acres consist of State wetlands. Of the total 2.52 acres, 1.22 acres comprise Corps jurisdiction as the

[1] This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations and written policy and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries.

remaining 1.30 acres represent Regional Board jurisdiction only. A total of 3,880 linear feet of streambed is present.

CDFW jurisdiction at the site totals approximately 7.68 acres, of which approximately 6.33 acres consist of riparian habitat. A total of 3,880 linear feet of stream is present.

I. METHODOLOGY

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the property, the previously cited USGS topographic map, and a soils map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity and/or wetland vegetation, soils, and hydrology. Where applicable, reference was made to the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (OWHM Manual)[2] to identify the width of Corps jurisdiction and suspected federal wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[3] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement).[4] Reference was also made to the 2019 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Board Wetland Definition and Procedures) to identify suspected State wetland habitats.[5] While in the field the potential limits of jurisdiction were recorded with a sub-meter Trimble GPS device in conjunction with a color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

The National Cooperative Soil Survey (NCSS) has mapped the following soil types as occurring in the general vicinity of the Project site and are included on Exhibit 5 (Soils Map):

- Badland (BaG);
- Greenfield sandy loam, 2 to 8 percent slopes, eroded (GyC2);
- Placentia fine sandy loam, 5 to 15 percent slopes, eroded (PlD);

[2] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States
[3] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.
[4] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[5] State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

- Ramona Sandy Loam, 2 to 5 percent slopes, eroded (RaB2);
- Riverwash (RsC);
- San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded (SeD2);
- San Emigdio loam, 2 to 8 percent slopes (SgC); and
- Terrace escarpments (TeG).

The Badland (BaG), Placentia fine sandy loam, 5 to 15 percent slopes, eroded (PlD), and Riverwash (RsC) soils are considered hydric soils per the Hydric Soil Lists for Western Riverside County if they support the following:

- inclusion of an unnamed ponded depression;
- soils that are frequently ponded for long duration or very long duration during the growing season; and
- soils that are seasonally flooded or ponded.

It is important to note that under the Arid West Region Supplement, the presence of mapped hydric soils is no longer dispositive for the presence of hydric soils. Rather, the presence of hydric soils must now be confirmed in the field. As noted, wetland datasheets are provided in Appendix A.

II. JURISDICTION

A. 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), pursuant to the *Navigable Waters Protection Rule*[6] (NWPR), as:

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

(1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;

(2) Tributaries;

[6] U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

(3) Lakes and ponds, and impoundments of jurisdictional waters; and
(4) Adjacent wetlands.

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

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

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

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

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

- 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 Arid West 2016 Regional Wetland Plant List[7],[8]);

- 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 Wetland 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.

B. Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[9] and waters of the

[7] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.
[8] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.
[9] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S.

State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

1. State Wetland Definition

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

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[10] *and*
3. *Artificial wetlands*[11] *that meet any of the following criteria:*

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

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

[11] Artificial wetlands are wetlands that result from human activity.

a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
b. Specifically identified in a water quality control plan as a wetland or other water of the state;
c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[12]

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

[12] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board's authority to issue or waive waste discharge requirements or take other actions as applicable.

C. California Department of Fish and Wildlife

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

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

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

III. RESULTS

The Project site contains three features described herein as Drainage A, Drainage A-1, and Cooper’s Creek. Drainage A is an ephemeral drainage that enters the northeast portion of the site and flows westerly across the site. Drainage A-1 is an ephemeral tributary to Drainage A that begins in the eastern portion of the site and confluences with Drainage A in the central portion of the site. Drainage A is tributary to Cooper’s Creek, which is a perennial creek dominated with riparian and wetland vegetation. Cooper’s Creek flows in a general east to northwest direction through the southern portion of the Project site and is one of the main southern tributaries to San Timoteo Creek. A summary of each feature as it pertains to Corps, Regional Board, and CDFW potential jurisdiction within the Project site is discussed below.

A. Corps Jurisdiction

Corps jurisdiction associated with the Project site totals approximately 1.22 acres of waters of the United States, all of which consist of federal wetlands (1,692 linear feet).

Corps jurisdiction is limited to Cooper's Creek, a perennial stream. Drainage A and Drainage A-1 are ephemeral streams that flow only in direct response to precipitation (e.g., rain). Pursuant to the *Navigable Waters Protection Rule*, ephemeral features, including ephemeral streams, swales, gullies, rills, and pools are not considered waters of the U.S. regardless of the presence or absence of an OHWM. Tributaries must satisfy the flow conditions of the definition described in 33 U.S.C. 1251 et seq. and its implementing regulations (33 CFR Part 328.3). As a result, these features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA.

Table 1 below summarizes Corps jurisdictional waters associated with the Project site. A description of the Corps jurisdictional drainage feature associated with the Project site is outlined below. The boundaries of Corps jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3A].

1. Cooper's Creek

Corps jurisdiction associated with Cooper's Creek totals 1.22 acres, all of which consist of federal wetlands, and a total of 1,692 linear feet of perennial streambed. Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek.

During the field delineation, Cooper's Creek exhibited open flowing water approximately 8 to 12 feet in width and an active channel width of 15 to 40 feet, which was noted as the limits of the ordinary high water mark (OHWM).

Vegetation within the Project site associated with Cooper's Creek consisted of black willow (*Salix gooddingii*, FACW), polished willow (*Salix laevigata*, FACW), black walnut (*Juglans californica*, FACU), Fremont's cottonwood (*Populus fremontii*, FACW), and black elderberry (*Sambucus nigra*, FACU) as the dominant riparian canopy forming species. Dominant wetland vegetation within the riparian understory comprised of mule fat (*Baccharis salicifolia*, FAC), stinging nettle (*Urtica dioica*, FAC), Southern California grape (*Vitis girdiana*, FACU), and cattail (*Typha sp*., OBL).

Six representative sample plots (1-6) were assessed to obtain soil profiles, vegetation types, and the presence of hydrology on the banks of the creek adjacent to flowing water. As shown within Appendix A, all six sample plots met the criteria for hydrophytic vegetation. Sample plots 1, 3, and 5 also met the hydric soil and wetland hydrology indicators.

Table 1: Summary of Corps Jurisdiction

Drainage Name	Corps Non-Wetland Waters (acres)	Corps Jurisdictional Wetlands (acres)	Total Corps Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	1.22	1.22	1,692
Total	**0**	**1.22**	**1.22**	**1,692**

B. Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction associated with the Project totals approximately 2.52 acres, of which 1.22 acres consist of State wetlands and 1.30 acres consist of non-wetland State waters. This includes 1,692 linear feet of wetland stream and 2,187 linear feet of ephemeral, non-wetland stream.

Regional Board jurisdiction includes Cooper's Creek, which as stated above, is considered a water of the U.S. and subject to Corps jurisdiction under Section 404 of the CWA. Since this feature is considered waters of the U.S., it is subject to Regional Board jurisdiction under Section 401 of the CWA.

Drainages A and A-1 are characterized as ephemeral drainage features that convey surface water only in direct response to precipitation (e.g., rain) and do not meet the criteria for regulation by the Corps under Section 404 of the CWA. Since ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA, these features are also not subject to Regional Board jurisdiction pursuant to Section 401 of the CWA. However, since these features convey surface flow with the potential to support beneficial uses, they are considered to be waters of the State that would be regulated by the Regional Board pursuant to Section 13260 of the California Water Code (CWC)/the Porter-Cologne Act.

Table 2 below summarizes Regional Board jurisdictional waters associated with the Project site. A description of the Regional Board jurisdictional drainage features associated with the Project site is outlined below. The boundaries of Regional Board jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3B].

1. Cooper's Creek

Regional Board jurisdiction associated with Cooper's Creek totals 1.22 acres, all of which is State wetland waters. A total of 1,692 linear feet of streambed is present. As stated above, Cooper's Creek is considered a wetland water of the U.S. that is subject to both Corps and Regional Board jurisdictions under Sections 404 and 401 of the CWA.

Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek.

During the field delineation, Cooper's Creek exhibited open flowing water approximately 8 to 12 feet in width and an active channel width of 15 to 40 feet.

Vegetation within the Project site associated with Cooper's Creek consisted of black willow, polished willow, black walnut, Fremont's cottonwood, and black elderberry as the dominant riparian canopy forming species. Dominant wetland vegetation within the riparian understory comprised of mule fat, stinging nettle, Southern California grape, and cattail.

2. Drainage A

Regional Board jurisdiction associated with Drainage A totals 1.22 acres, all of which consist of non-wetland waters of the State. A total of 1,489 linear feet of streambed is present. This feature is considered a water of the State that is subject to Section 13260 of the CWC/the Porter-Cologne Act.

Drainage A enters the northeastern portion of the Project site from a 48-inch corrugated metal pipe culvert that runs under the newly constructed Potrero Boulevard, as depicted on Exhibit 3B. From the culvert, Drainage A follows a natural east to southwest path for approximately 1,489 feet until it exits the Project site. The drainage has been modified as a result of receiving stormwater flows from upstream development and Potrero Boulevard, including becoming larger in width and more incised. It exhibited characteristics of a low-flow channel, sediment size differences, and smaller braided channels throughout most of its length. The upstream portion of Drainage A is approximately 11 feet in width and then widens to an approximately 100-foot active channel. Following the topography of the site to the southwest, Drainage A's width decreases to approximately 30 feet prior to its conveyance with Drainage A-1 in the central portion of the Project site and becomes incised to 6 feet in width for the remaining length until it exits the site.

Vegetation associated with Drainage A is dominated by a mix scrub oak chaparral and intermittent riparian vegetation. Vegetation species consist of scrub oak (*Quercus berberidifolia*, NL), mule fat, black elderberry, California buckwheat (*Eriogonum fasciculatum var. polifolium*, FACU), Russian thistle (*Salsola tragus*, FACU), and red brome (*Bromus madritensis ssp. rubens*, UPL).

3. Drainage A-1

Regional Board jurisdiction associated with Drainage A-1 totals 0.08 acre, all of which consists of non-wetland waters of the State. A total of 699 linear feet of streambed is present. This feature is considered a water of the State that is subject to Section 13260 of the CWC/the Porter-Cologne Act.

Drainage A-1 originates on the Project site within the eastern boundary. Based on historic aerial images and topographic maps, Drainage A-1 occurs as two erosional feature segments that have become incised ephemeral channels over time. As depicted on Exhibit 3B, Drainage A-1 begins in the eastern portion of the Project site and continues in a west-northwest direction for approximately 699 feet until it terminates into Drainage A.

The upstream portion of Drainage A-1 is approximately 6 feet in width on the northern segment and 5 feet in width within the southern segment. These segments continue down slope for approximately 150 feet each until they converge. Average widths in the downstream sections of Drainage A-1 are approximately 7 feet wide as the drainage continues into Drainage A.

Vegetation associated with Drainage A-1 is a mix scrub oak chaparral and Riversidean sage scrub plant communities. Dominant species consist of scrub oak, chamise (*Adenostoma fasciculatum*, UPL), California sage brush (*Artemisia californica*, UPL), doveweed (*Croton setiger*, UPL), California buckwheat, and non-native annuals, such as summer mustard (*Hirschfeldia incana*, NL), Russian thistle, and red brome.

Table 2: Summary of Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	1.22	1.22	1,692
Drainage A	1.22	0	1.22	1,489
Drainage A-1	0.08	0	0.08	699
Total	**1.30**	**1.22**	**2.52**	**3,880**

C. CDFW Jurisdiction

CDFW jurisdiction associated with the Project totals approximately 7.68 acres and includes all areas within Corps and/or Regional Board jurisdiction. Of this total, 6.33 acres consist of riparian stream and 1.35 acres consist of non-riparian stream. A total of 3,880 linear feet of stream is present. This includes 1,692 linear feet of riparian stream and 2,188 linear feet of ephemeral, non-riparian stream.

As stated above, the Project site contains one perennial feature (Cooper's Creek) and two ephemeral drainage features (Drainage A and A-1). Each of these features exhibited flow sign with the presence of a bed and bank. Additionally, the entirety of Cooper's Creek includes a riparian stream as does portions of Drainage A. As such, these features are subject to CDFW jurisdiction under Section 1602 of the Fish and Game Code.

Table 3 below summarizes CDFW jurisdictional waters associated with the Project site. A description of the CDFW jurisdictional drainage features associated with the Project site is outlined below. The boundaries of CDFW jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3C].

1. Cooper's Creek

CDFW jurisdiction associated with Cooper's Creek totals 6.21 acres, all of which consists of riparian stream. A total of 1,692 linear feet of riparian stream is present. Cooper's Creek originates approximately 1.70 miles to the east of the Project site in the City of Beaumont. The creek flows in a general east to northwest direction for approximately 1,692 feet within the southern portion of the Project boundary. As it exits the Project, it turns northwest and flows under the 60 Freeway until it discharges into San Timoteo Creek. Cooper's Creek is a perennial stream that exhibits a defined bed, bank, and channel. As shown on Exhibit 3C, Cooper's Creek contains an average riparian canopy width of approximately 150 feet throughout its length within the Project's southern boundary.

Riparian vegetation associated with the creek included black willow, polished willow, Fremont's cottonwood, and black elderberry as the dominant riparian canopy-forming species. Mule fat, stinging nettle, Southern California grape, and cattail comprised the dominant wetland vegetation within the riparian understory.

2. Drainage A

CDFW jurisdiction associated with Drainage A totals 1.35 acres, of which 0.12 acre consists of riparian stream. A total of 1,489 linear feet of stream is present. This feature exhibited ephemeral

flow sign with the presence of a bed, bank, channel, and is sporadically vegetated with riparian vegetation.

Drainage A enters the northeastern portion of the Project site from a 48-inch corrugated metal pipe culvert that runs under the newly constructed Potrero Boulevard, as depicted on Exhibit 3C. From the culvert, Drainage A follows a natural east to southwest path for approximately 1,489 feet until it exits the Project site. The drainage has been modified as a result of receiving stormwater flows from upstream development, including becoming larger in width and more incised. It exhibited characteristics of a low-flow channel, sediment size differences, and smaller braided channels throughout most of its length. The upstream portion of Drainage A is approximately 11 feet in width and then widens to an approximately 100-foot active channel. Following the topography of the site to the southwest, Drainage A's width decreases to approximately 30 feet prior to its conveyance with Drainage A-1 in the central portion of the Project site and becomes incised to 6 feet in width for the remaining length until it exits the site.

Vegetation associated with Drainage A is dominated by a mix scrub oak chaparral and intermittent riparian vegetation. Vegetation species consist of scrub oak, mule fat, black elderberry, California buckwheat, Russian thistle, and red brome.

3. Drainage A-1

CDFW jurisdiction associated with Drainage A-1 totals 0.12 acre, all of which consists of non-riparian stream. A total of 699 linear feet of stream is present. This feature exhibited ephemeral flow sign with the presence of a bed, bank, and channel.

Drainage A-1 originates on the Project site within the eastern boundary. Based on historic aerial images and topographic maps, Drainage A-1 occurs as two erosional feature segments that have become incised features with defined bed and banks. As depicted on Exhibit 3C, Drainage A-1 begins in the eastern portion of the Project and continues in a west-northwest direction for approximately 699 feet until it converges with Drainage A. The upstream portion of Drainage A-1 is approximately 6 feet in width on the northern segment and 5 feet in width within the southern segment. These segments continue down slope for approximately 150 feet until they converge. Average widths in the downstream sections of Drainage A-1 are approximately 7 feet wide as the drainage continues into Drainage A.

Vegetation associated with Drainage A-1 consist of scrub oak, chamise, California sage brush, doveweed, California buckwheat, summer mustard, Russian thistle, and red brome.

Table 3: Summary of CDFW Jurisdiction

Drainage Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Cooper's Creek	0	6.21	6.21	1,692
Drainage A	1.23	0.12	1.35	1,489
Drainage A-1	0.12	0	0.12	699
Total	**1.35**	**6.33**	**7.68**	**3,880**

If you have any questions about this letter report, please contact Lexi Kessans at (949) 837-0404.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

Chris Waterston
Regulatory Specialist

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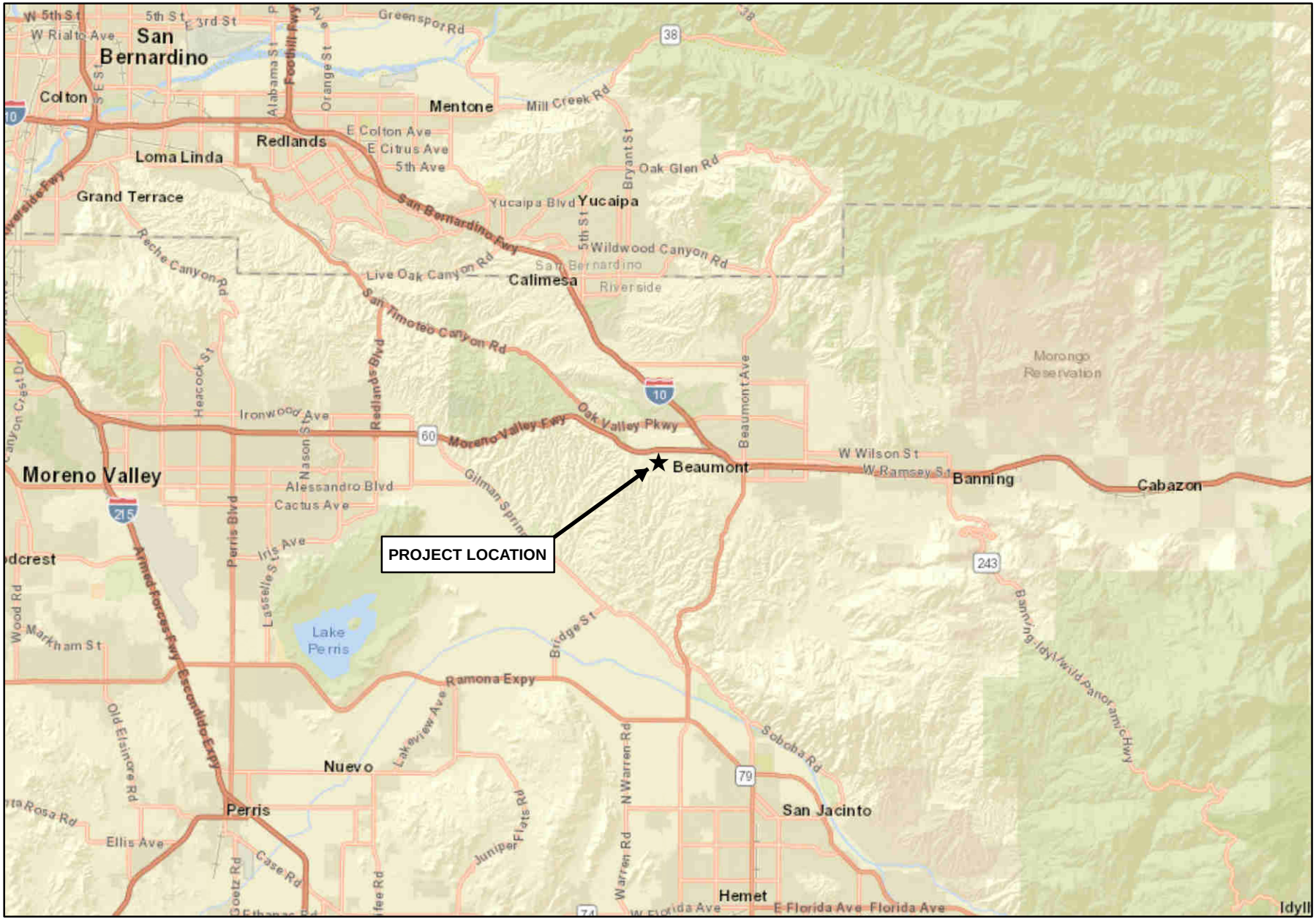
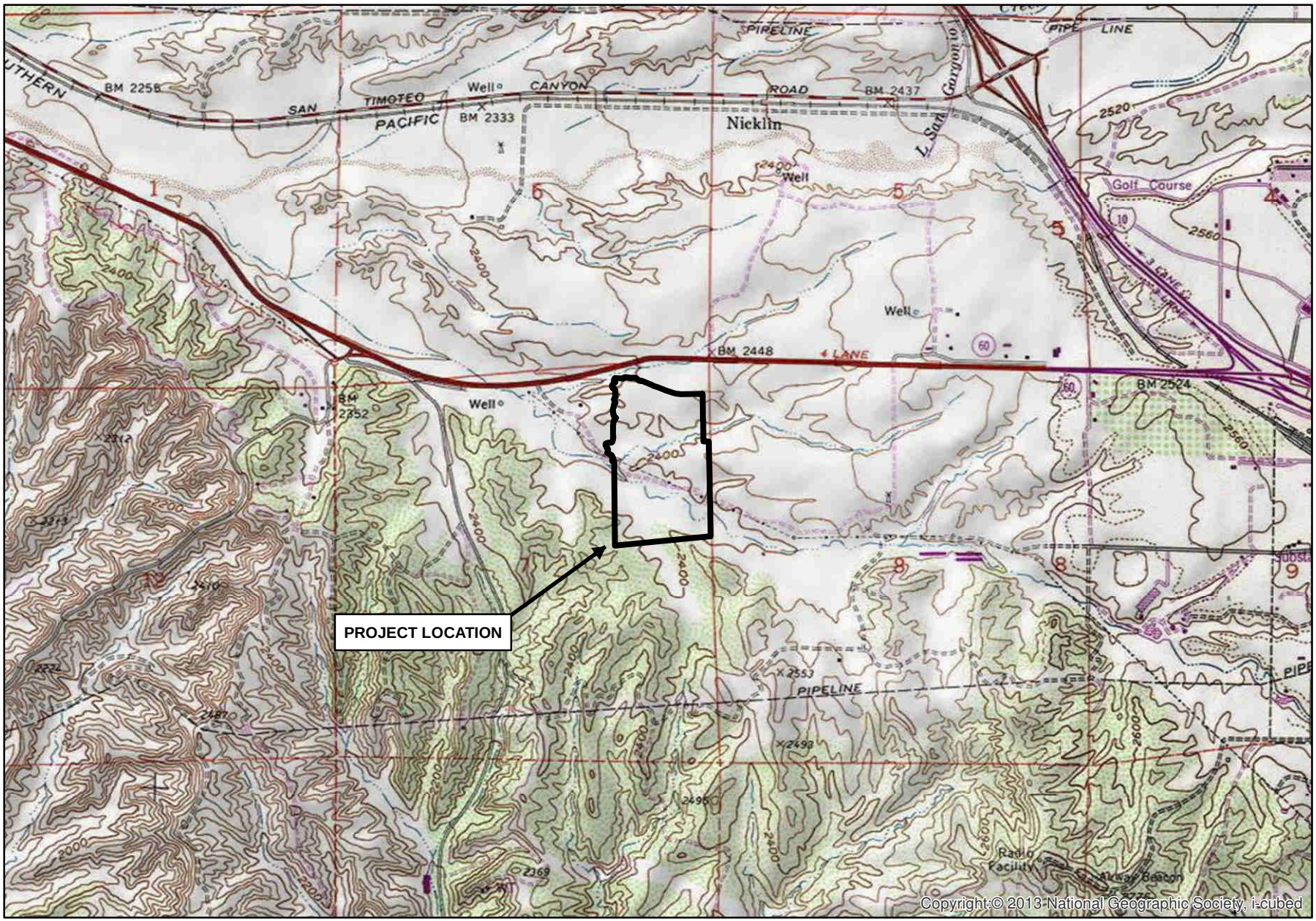


POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS El Casco, CA quadrangle

N

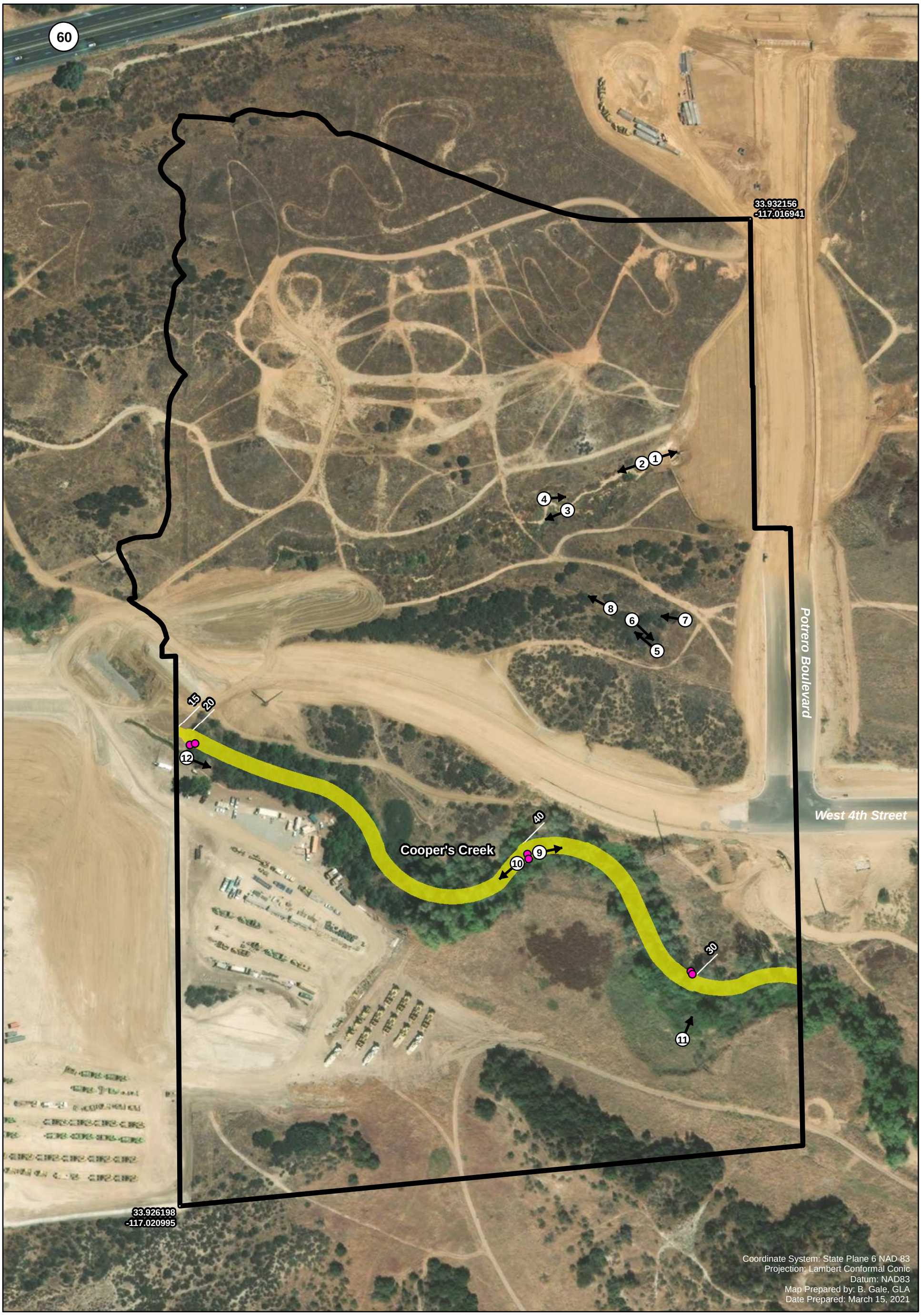
0 1,000 2,000 4,000 Feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project Site

Wetland Waters of U.S.

6 Width of Drainage in Feet

Sample Plot

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Corps Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3A

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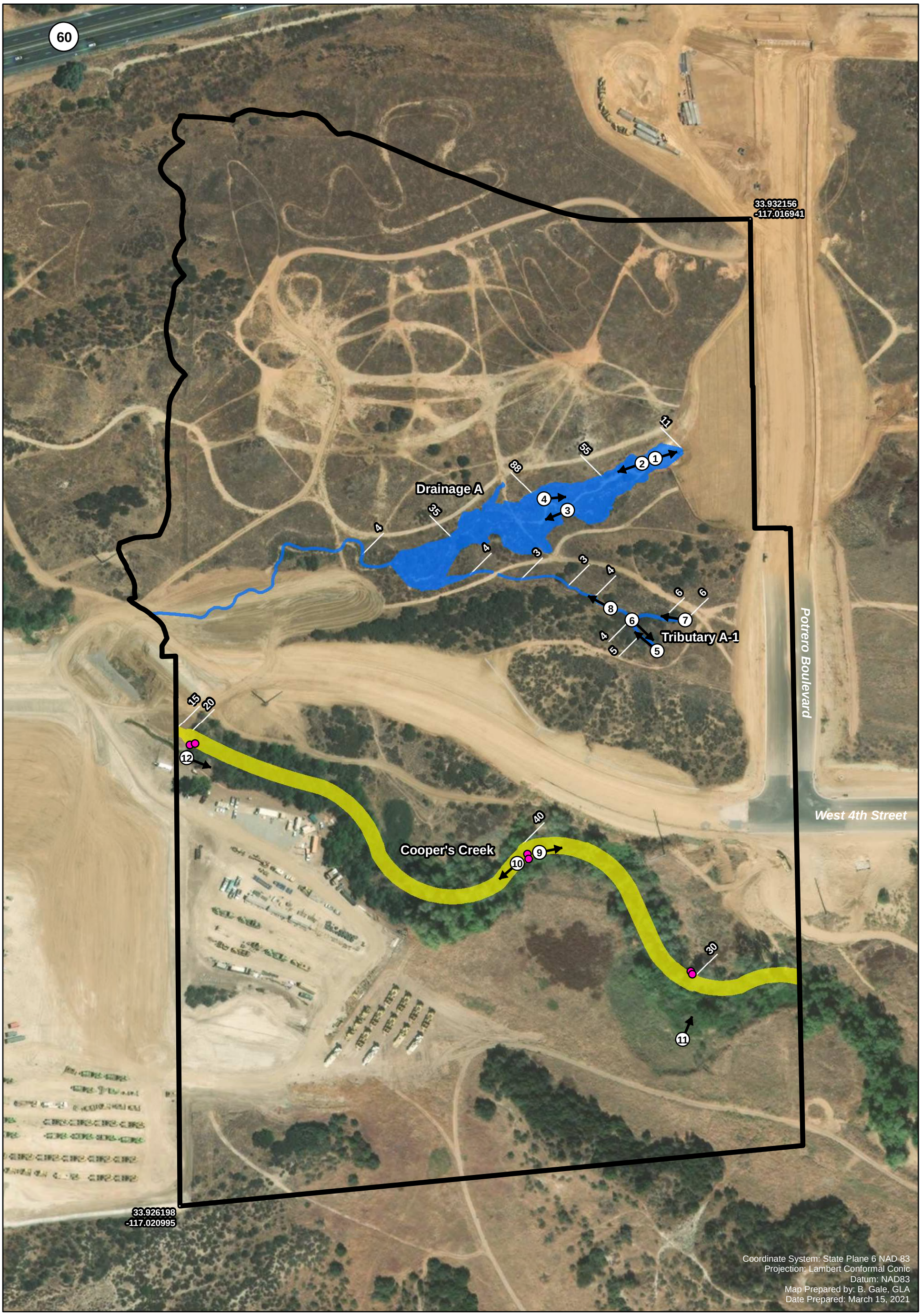

Project Site

Wetland Waters of U.S./State

Non-Wetland Waters of the State

6 Width of Drainage in Feet

Sample Plot

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3B

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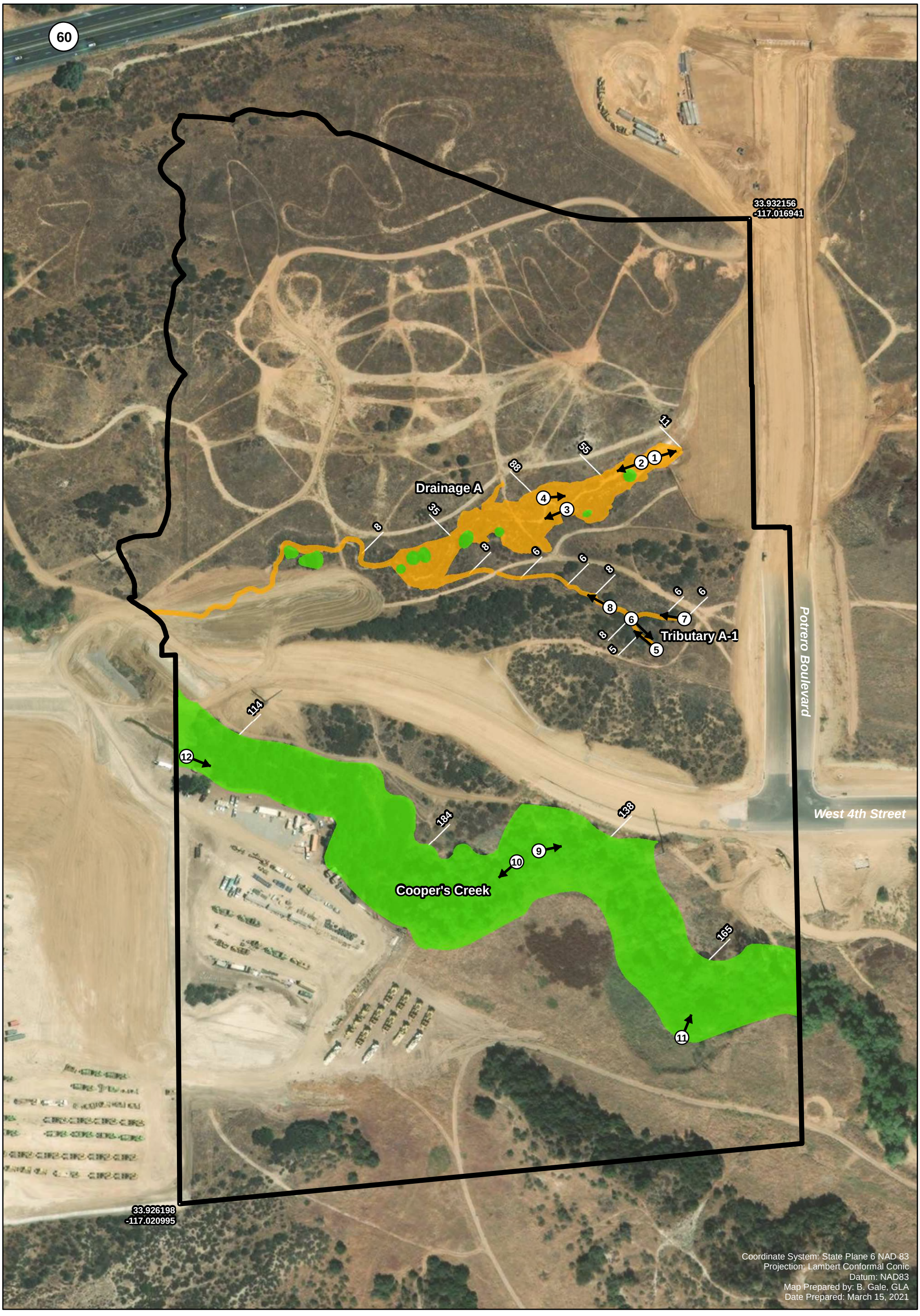

Project Site

CDFW Riparian Stream

CDFW Non-Riparian Stream

6 Width of Drainage in Feet

1 Photo Location

N

0 100 200 400

Feet

1 inch = 200 feet

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3C

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Photograph 1: A view of Drainage A as it enters the site through a culvert under Potrero Blvd. The photo is facing east.

Photograph 2: A view of Drainage A in the eastern portion of the site. Note the evidence of recent flow and a stand of riparian trees (Elderberry) in the background. The photo is facing west.

Photograph 3: A view of Drainage A in the central portion of the site. Note the upland sage scrub vegetation and the beginning of channel incision. The photo is facing southwest.

Photograph 4: A view of Drainage A in the central portion of the site. Note the severe channel incision. The photo is facing east.

Photograph 5: A view of the southern segment of Drainage A-1. Note the coverage of upland vegetation and scrub oak. The photo is facing northwest.

Photograph 6: A view of Drainage A-1 as the southern and northern segments converge. The photo is facing southeast.

Photograph 7: A view of the northern segment of Drainage A-1. Note the similar upland vegetation as photo 5. The photo is facing west.

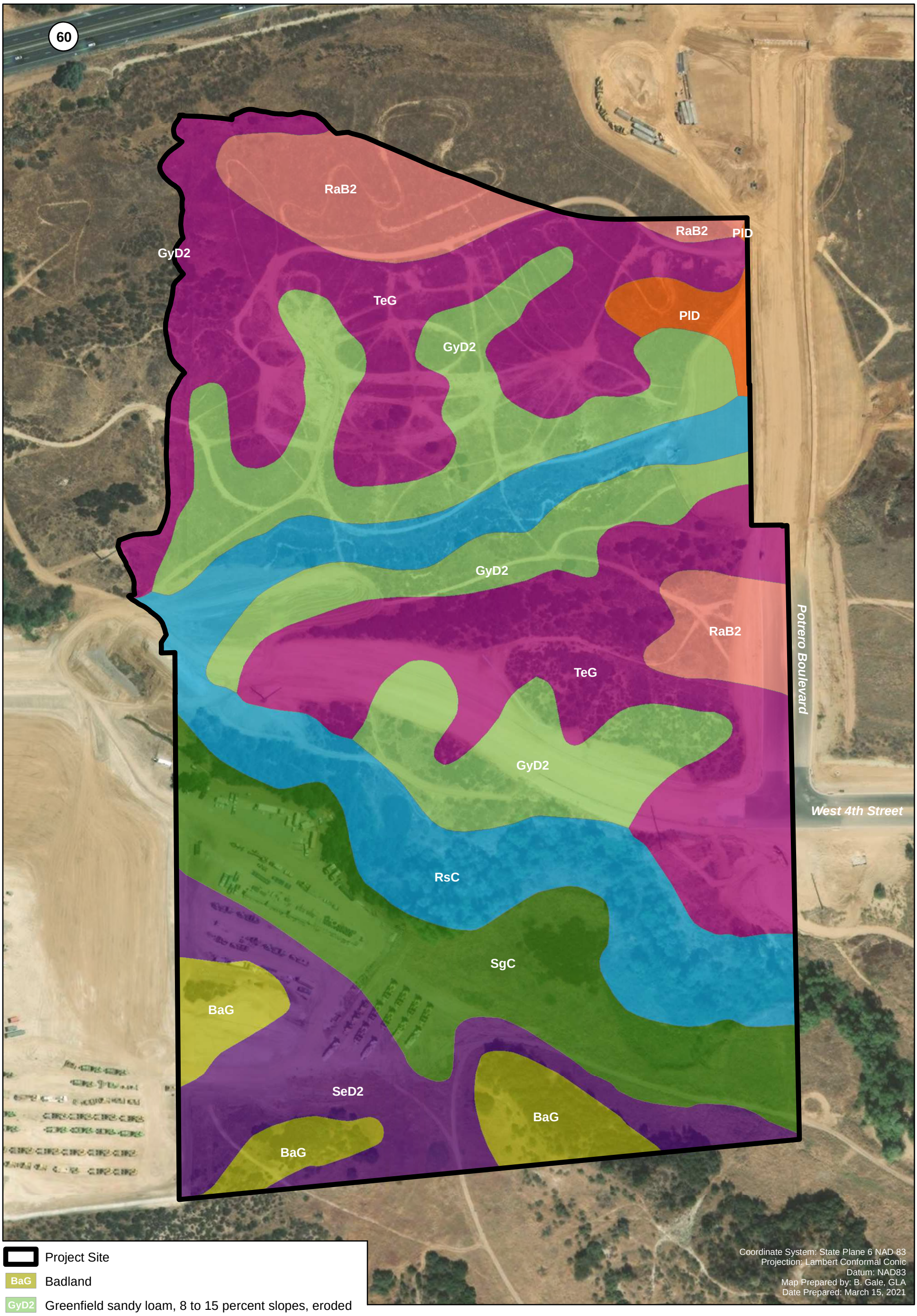
Photograph 8: A view of Drainage A-1. Note the incised channel and upland scrub oak vegetation. The photo is facing west.

Photograph 9: A view of Cooper's Creek in the southern portion of the site. Note the active channel width extends out from the water level shown here. The photo is facing east.

Photograph 10: A view of Cooper's Creek. Note the wetland vegetation and riparian canopy. The photo is facing southwest.

Photograph 11: A view of the dense riparian vegetation associated with Cooper's Creek. The photo is facing north.

Photograph 12: A view of the riparian and wetland vegetation associated with Cooper's Creek at the western boundary of the site.



- Project Site
- BaG — Badland
- GyD2 — Greenfield sandy loam, 8 to 15 percent slopes, eroded
- PlD — Placentia fine sandy loam, 5 to 15 percent slopes
- RaB2 — Ramona sandy loam, 2 to 5 percent slopes, eroded
- RsC — Riverwash
- SeD2 — San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded
- SgC — San Emigdio loam, 2 to 8 percent slopes
- TeG — Terrace escarpments

N

0 100 200 400

Feet

1 inch = 200 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: March 15, 2021

POTRERO LOGISTICS CENTER WAREHOUSE PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 5

X:\1100 AFTER THE REST\1275-06POTR\1275-6_GIS\SoilsGIS\1275-6_Soils.mxd

APPENDIX A
WETLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
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- ☐ Sandy Mucky Mineral (S1)
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- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
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- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

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Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

Soil Map Unit Name: Riverwash NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	Y	FACW
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5ft.)			
1. Urtica dioica	25	Y	FAC
2. Cyperus eragrostis	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 5ft)			
1. Vitis girdiana	5	N	FAC
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 70	x 2 =	140
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

✔ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 4/2	100	10 YR 3/4	>3	C	M	SandLoam	Faint redox features

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potrero Logistics Center Warehouse City/County: Beaumont, Riverside Sampling Date: 12/09/2020

Applicant/Owner: Armour Properties State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Zack West Section, Township, Range: S7 T3S R1W

Landform (hillslope, terrace, etc.): Lotic Stream Local relief (concave, convex, none): Concave Slope (%): ____

Subregion (LRR): C Lat: 33.927614 Long: -117.017332 Datum: NAD 83

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Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

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Hydrophytic Vegetation Indicators:

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___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
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- ☐ Black Histic (A3)
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- ☐ Stratified Layers (A5) (**LRR C**)
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- ☐ Sandy Gleyed Matrix (S4)
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- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: None

Depth (inches): N/A

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Greater than 3% redox features and chroma of 2 or less

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
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- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
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- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☑ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
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- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☑ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX C