APPENDIX D1: BIOLOGICAL RESOURCES ANALYSIS

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HELIX Environmental Planning

Bloomington Business Park Specific Plan

Biological Technical Report

August 2021 | 03922.00001.001

Prepared for:

Howard Industrial Partners
1944 North Tustin Street, Suite 122
Orange, CA 92865

Prepared by:

HELIX Environmental Planning, Inc.
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Irvine, CA 92618

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TABLE OF CONTENTS

Section **Page**

TABLE OF CONTENTS (cont.)

TABLE OF CONTENTS (cont.)

LIST OF APPENDICES

LIST OF FIGURES

LIST OF TABLES

ACRONYMS AND ABBREVIATIONS

AMSL	Above Mean Sea Level
BMPs	Best Management Practices
BUOW	Burrowing Owl
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG	California Fish and Game
City	City of Fontana
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of San Bernardino
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DBH	Diameter at Breast Height
DSFLF	Delhi Sands Flower-loving Fly
ELMT	ELMT Consulting, Inc.
FESA	Federal Endangered Species Act
GPS	Global Positioning System
HELIX	HELIX Environmental Planning, Inc.
ICF	ICF International
ISA	International Society of Arboriculture
MBI	Michael Baker International
MBTA	Migratory Bird Treaty Act
MCV	A Manual of California Vegetation
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
RWQCB	Regional Water Quality Control Board
SFP	State Fully Protected
SPA	Specific Plan Area
Specific Plan	Bloomington Business Park Specific Plan
SSC	Species of Special Concern

ACRONYMS AND ABBREVIATIONS (cont.)

Upper SAR HCP	Upper Santa Ana River Habitat Conservation Plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WVLC	West Valley Logistics Center Project

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EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) completed this biological technical report for the Bloomington Business Park Specific Plan (Specific Plan), which is proposed by Howard Industrial Partners in the unincorporated community of Bloomington in San Bernardino County (County), California. The approximately 223-acre proposed Specific Plan Area (SPA) would include a land use mix of warehouse, manufacturing, office, and business park uses with some limited support commercial uses. The buildout of the SPA is anticipated to be carried out over time in a phased manner dependent upon market demand for proposed uses. The first phase of development under the Specific Plan would consist of Project Sites 1 and 2, totaling 96 acres. The second phase of the development would consist of Project Sites 3 and 4, totaling 48 acres. Off-site improvements are also proposed to support the development of Phases 1 and 2 (Phase 1/2 off-site areas). Phase 1/2 off-site areas include storm drain, sewer, water improvements, and road improvements. The Phase 1/2 off-site areas total approximately 19.1 acres and are generally located within the SPA, although some portions in the northwest and southeast extend outside of the SPA boundary. The remainder of the SPA will be developed in a future phase(s) based on market conditions and future property ownership.

This report describes the biological resources and potential impacts to those resources related to the proposed development of Project Sites 1 through 4 and Phase 1/2 off-site areas at a project-specific level. Off-site areas located along and adjacent to Jurupa Avenue were previously analyzed as part of the West Valley Logistics Center Project (WVLC), and the assessment is summarized throughout this report (WVLC off-site areas). This report also addresses potential biological resources and impacts to those resources related to the future buildout of the remaining SPA, including off-site areas to the west of the SPA boundary (SPA off-site areas), at a programmatic level. The Study Area is used throughout this report to collectively refer to the SPA (including Project Sites 1 through 4) and all off-site areas.

HELIX conducted a general biological survey and habitat assessment on Project Sites 1 through 4 and Phase 1/2 off-sites areas. EMLT Consulting, Inc. (ELMT) performed a Delhi sands flower loving fly (*Rhaphiomidas terminatus* abdominalis; DSFLF) habitat assessment for the entire Study Area. HELIX performed burrowing owl (*Athene cunicularia*; BUOW) habitat assessments on Project Sites 1 through 4 and Phase 1/2 off-site areas and focused BUOW surveys on Project Sites 2 and 4. Focused surveys performed for Project Site 2 included the WVLC off-site areas. ELMT completed a jurisdictional assessment on Project Sites 1 through 4 and Phase 1/2 off-site areas to determine if jurisdictional resources regulated by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) were present. The WVLC off-site areas were assessed as part of the WVLC Project. No other surveys were conducted within or adjacent to the Study Area.

The Study Area is located to the north of the Jurupa Mountains and currently supports a mixture of rural residential homes, plant nurseries, small ranches, and vacant lots dominated by non-native vegetation. Project Site 1 is located in the southeastern portion of the SPA and comprises rural residential homes. Project Site 2 is located near the center of the SPA and is mostly developed with rural residential housing and active nurseries. Project Site 3 is located in the central-western portion of the SPA and mostly consists of developed and rural residential housing, an active nursery, and vacant housing lots. Project Site 4 is located near the western boundary of the SPA and comprises a vacant rural residential lot. Phase 1/2 off-site areas consist almost entirely of existing development, although some small portions along Locust Avenue and Maple Avenue overlap with adjacent nurseries in the existing rights-

of-way. The most southeastern end of the off-site area (south of 5th Street) extends into a small area of disturbed California buckwheat scrub, which was the only native community observed within the Study Area. The WVLC off-site areas outside of the SPA were previously assessed as part of the WVLC project and consist of a mixture of disturbed and non-native vegetation.

Project Sites 1 through 4 and Phase 1/2 off-site areas do not support sensitive plant communities or suitable habitat for rare plant species. Sensitive plant communities or suitable habitat for rare plant species are not expected within other portions of the SPA, although project-level surveys would be conducted to make this determination prior to future development in these areas. Sensitive animal species with a potential to occur on Project Sites 1 through 4 and Phase 1/2 off-areas include BUOW, pocketed free-tailed bat (*Nyctinomops femorasaccus*), and western yellow bat (*Lasiurus xanthinus*). San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) has a potential to occur within other portions of the SPA, but is not expected to occur within Project Sites 1 through 4 or Phase 1/2 off-site areas. Focused BUOW surveys conducted on Project Site 2 (also included WVLC off-site areas) and Project Site 4 were negative. ELMT concluded the entire Study Area does not support suitable habitat for DSFLF. Project-level surveys would be required to determine potential for sensitive animal species (with the exception of DSFLF) within the remaining portions of the SPA. The entire Study Area supports potentially suitable habitat for nesting bird species. ELMT did not document jurisdictional resources within Project Sites 1 through 4 or Phase 1/2 off-site areas. A jurisdictional assessment would be required for other portions of the SPA prior to development. The SPA is not considered a regional wildlife corridor. No regulated trees as defined by the County's Code of Ordinances (Section 88.01.070) were identified within Project Sites 1 through 4 or Phase 1/2 off-site areas. A tree survey would be required for other portions of the SPA prior to development. Project Sites 1 through 4 and Phase 1/2 off-site areas would not conflict with any adopted habitat conservation plans. The Upper Santa Ana River Habitat Conservation Plan (Upper SAR HCP) was released for public review in May 2021, but has not been approved. Should the Upper SAR HCP be approved, future development within the SPA would be required to comply with the plan implemented at the time of their entitlement, pursuant to Countywide Plan Policy NR-5.7.

Potential significant impacts for the development of Project Sites 1 through 4 and Phase 1/2 off-site areas were identified for BUOW, sensitive bat species, and nesting birds. Measures to fully mitigate potential impacts are included in this report. Successful implementation of these measures would mitigate potential impacts to below a level of significance. Potential significant impacts for development within other portions of the SPA were identified for rare plant species, BUOW, sensitive bat species, other sensitive animal species, sensitive vegetation communities, jurisdictional resources, nesting birds, and County regulated trees. Specific project-level surveys would be required for proposed development within the remaining portions of the SPA to determine the presence of biological resources and applicable measures to mitigate potential significant impacts, which are included in this report. In addition, impacts within the WVLC off-site areas are subject to applicable measures from the WVLC Mitigation Monitoring and Reporting Program, which include measures related to BUOW and nesting birds.

1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report provides the County of San Bernardino (County; California Environmental Quality Act [CEQA] lead agency), resource agencies, and the public with current biological data to satisfy review of the proposed Bloomington Business Park Specific Plan (Specific Plan) located in the unincorporated community of Bloomington, San Bernardino County, California. The purpose of this report is to document the existing biological conditions on and in the immediate vicinity of the Specific Plan Area (SPA) and provide an analysis of potential impacts to sensitive biological resources with respect to local, state, and federal policy. This report provides the biological resources technical documentation necessary for the review of the Specific Plan under CEQA by the lead agency.

1.2 SPECIFIC PLAN DESCRIPTION AND BACKGROUND

The Specific Plan is an approximately 223-acre site providing for a land use mix of warehouse, manufacturing, office, and business park uses with some limited support commercial uses (Figure 1, *Specific Plan Overview*). The buildout of the Specific Plan is anticipated to be carried out over time in a phased manner, dependent upon market demand for proposed uses.

The first phase of development under the Specific Plan (Phase 1) proposes the development of 96 acres, which is approximately 43 percent of the Specific Plan (Figure 1). Phase 1 includes the buildout of Project Sites 1 and 2 (Figure 2, *Conceptual Masterplan*). The location of Phase 1 was chosen based on ownership of the parcels that comprise Phase 1, and therefore, the ability to develop these parcels per the Specific Plan. Development plans for Phase 1 include manufacturing, warehouse, and office facilities as well as associated parking lots, landscaping, and on-site stormwater quality features.

The second phase of development under the Specific Plan (Phase 2) proposes the development of 48 acres, which is approximately 22 percent of the Specific Plan (Figure 1). Phase 2 includes the buildout of project Sites 3 and 4 (Figure 2). Development plans for Phase 2 include a fulfillment center (Project Site 3) and an ancillary truck parking area (Project Site 4). The remainder of the SPA will be developed in a future phase(s) based on market and conditions of future property ownership (Figure 1; Figure 2).

Off-site improvements are also proposed to support the development of Phases 1 and 2 (Phase 1/2 off-site areas; Figure 1). Phase 1/2 off-site areas include storm drain, sewer, water improvements, and road improvements. The Phase 1/2 off-site areas total approximately 19.1 acres and are generally located within the SPA, although some portions in the northwest and southeast extend outside of the SPA boundary. Off-site areas along the southside of Jurupa Avenue that extend outside of the SPA boundary were previously analyzed as part of the West Valley Logistics Center Project (WVLC; Figure 1). This 1.2-acre area is referred to as “WVLC off-site area” throughout this report. The WVLC off-site areas are necessary for the buildout of Phase I. Additionally, there are two small off-site areas that extend outside of the SPA limits, totaling 0.4 acre (Figure 1). These areas include: (1) an approximately 350-foot segment that extends along Laurel Avenue from the southern SPA boundary; and (2) an approximately 590-foot segment that extends from the southwest corner of the SPA to Alder Avenue. This 0.4-acre area is referred to as “SPA off-site areas” throughout this report.

This report describes the biological resources and potential impacts to those resources related to the proposed development of Projects 1 through 4 and Phase 1/2 off-site areas at a project-specific level. Off-site areas along the southside of Jurupa Avenue that extend outside of the SPA boundary were previously analyzed as part of the WVLC Project. Biological resources and potential impacts to those resources related to development within the WVLC off-site areas are documented in the Habitat Assessment report prepared by Michael Baker International (MBI) in 2017 and the Final Environmental Impact Report prepared by ICF International (ICF) in 2018. The habitat assessment is included as Appendix A, *West Valley Logistics Center Habitat Assessment*. Development within the WVLC off-site areas would require compliance with mitigation measures listed in the WVLC Mitigation and Monitoring Reporting Program (ICF 2018). Biological resources, project impacts, and mitigation measures related to development within the WVLC off-site areas, as documented by MBI, are summarized in this report.

This report also addresses potential biological resources and impacts to those resources related to the future buildout of the remaining SPA at a programmatic level, including the SPA off-site area. Subsequent projects approved under the SPA, and SPA off-site areas would require site-specific biological surveys once detailed site plans are available. Biological surveys required would be evaluated on a project-by-project basis.

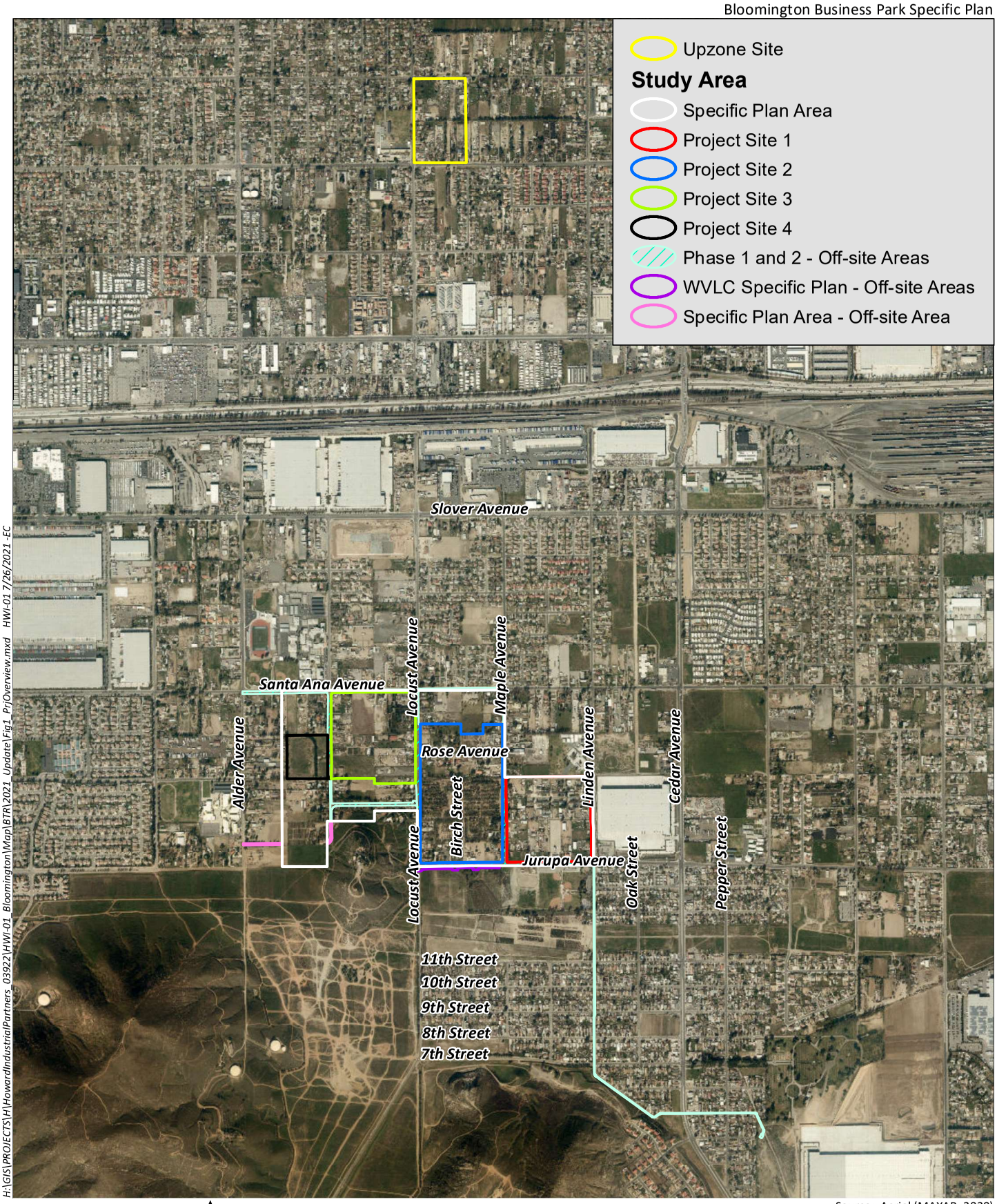
1.3 UPZONE SITE

Pursuant to Senate Bill 330, also known as the Housing Crisis Act of 2019, replacement capacity for any displaced residential units must be provided at the time of project approval. The SPA is currently zoned for single residential. Based on the zoning in effect on January 1, 2018, a total of approximately 213 residential units could potentially be developed within the SPA. As the Specific Plan would change the zoning of the site from residential to non-residential, a net loss of residential unit capacity in Bloomington could result. However, in compliance with Senate Bill 330, the zoning of a residentially zoned site (the "upzone site") would be changed to increase residential density to avoid a net loss of residential unit capacity.

The upzone site is located north of Interstate 10 to the east of Locust Avenue, between Hawthorne Avenue to the north and San Bernardino Avenue to the south in the northern area of Bloomington. The upzone site is approximately 24 acres and has a land use designation of Low Density Residential and, based on the zoning in effect on January 1, 2018, the upzone site is zoned Residential Single with 20,000-square-foot lot minimums, which allows for a total of approximately 52 residential units. The project would change the land use of the site to be Medium Density Residential and change the zoning to be Multiple Residential. Under the proposed zoning, a total of approximately 480 residential units could be developed at the upzone site. Thus, the total residential capacity in Bloomington would not be reduced as a result of rezoning the SPA to non-residential use, and the proposed zoning would more than accommodate for the 213-dwelling unit potential at the SPA. It should be noted the project does not include development within the upzone site. Future redevelopment of the upzone site would occur based on market conditions and independently of Specific Plan buildout. The upzone site was not evaluated for biological resources, and potential biological impacts are not addressed in this report.

1.4 SPECIFIC PLAN AREA LOCATION

The SPA is generally located 1.3 miles to the south of Interstate 10 and 3.3 miles to the north of State Route 60 (Figure 3, *Regional Location*). The SPA is within Section 28 of Township 1 South, Range 5 West on the U.S. Geological Survey (USGS) 7.5-minute Fontana quadrangle map (Figure 4, *USGS Topography*).



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Source: Aerial (MAXAR, 2020)

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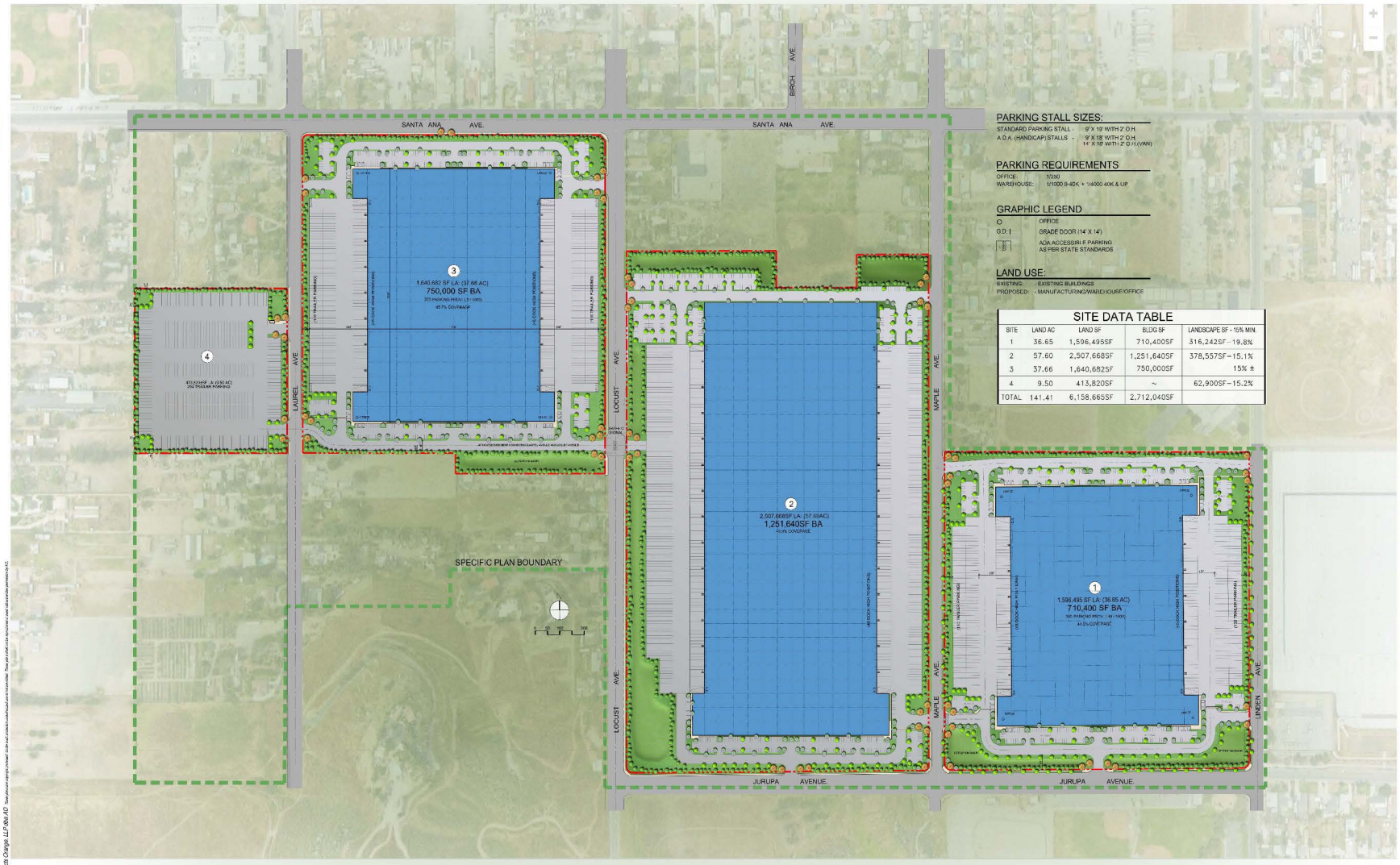
Project Overview

Figure 1



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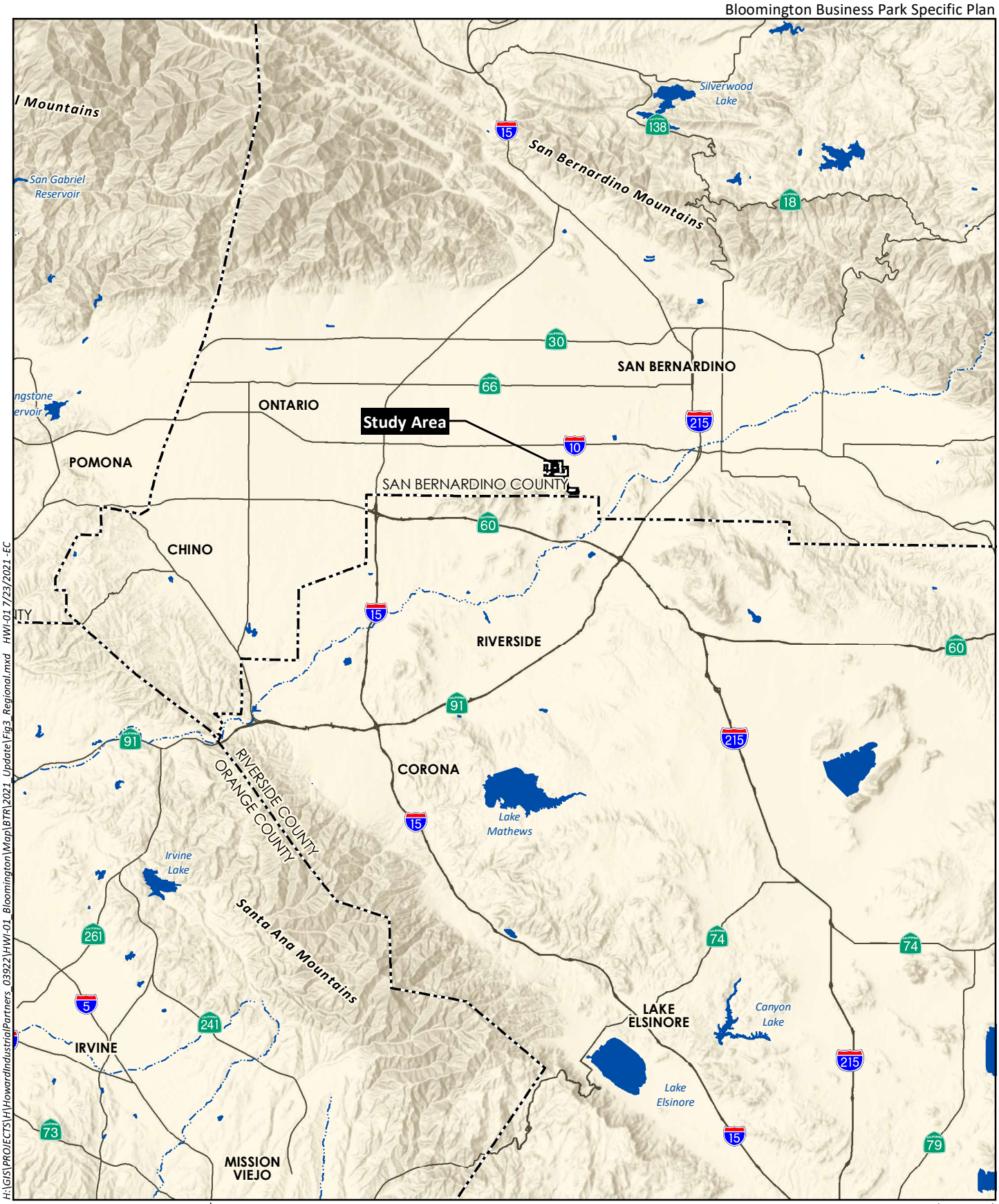
Source: Architecture Design Relationships, 2020

Conceptual Masterplan

Figure 2



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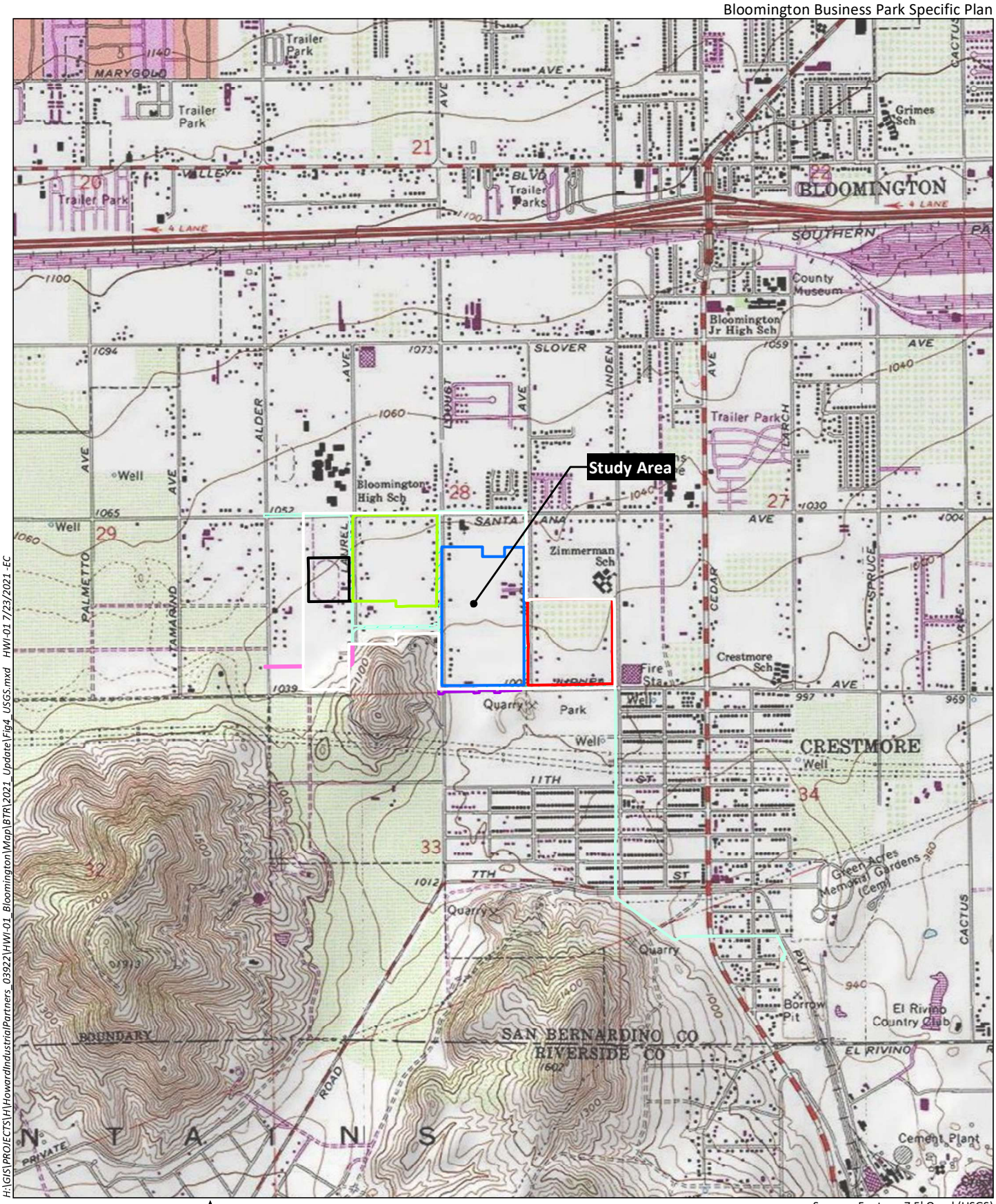
0 6 Miles

Source: Base Map Layers (Esri, 2013)

HELIX Environmental Planning

Regional Location

Figure 3



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Source: Fontana 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 4

The SPA is shown on Figure 5, *Aerial Photograph*. The Study Area is used throughout this report to collectively refer to the SPA (including Project Sites 1 through 4) and all off-site areas. The Study Area components are briefly described below.

1. **Specific Plan Area:** The 222.8-acre SPA is located north of Jurupa Avenue, west of Linden Avenue, south of Santa Ana Avenue, and east of Alder Avenue (Figure 5). Locust Avenue runs north to south through the center of the SPA.

2. **Phase 1:** Phase 1 consists of Project Sites 1 and 2 as well as Phase 1/2 off-site areas.

    a. **Project Site 1:** Project Site 1 is approximately 37.7 acres and is located in the southeastern corner of the SPA (Figure 5). This site is located north of Jurupa Avenue, west of Linden Avenue, and east of Maple Lane.

    b. **Project Site 2:** Project Site 2 is approximately 58.5 acres and is located in the central-eastern portion of the SPA (Figure 5). The site is located north of Jurupa Avenue, west of Maple Avenue, south of Santa Ana Avenue, and east of Locust Avenue.

3. **Phase 2:** Phase 2 consists of Project Sites 3 and 4.

    a. **Project Site 3:** Project Site 3 is approximately 38.9 acres and is located in the central-western portion of the SPA (Figure 5). This site is located south of Santa Ana Avenue, west of Locust Avenue, and east of Laurel Avenue.

    b. **Project Site 4:** Project Site 4 is approximately 9.4 acres and is located near the western boundary of the SPA (Figure 5). The site is located west of Laurel Avenue, south of Santa Ana Avenue, and east of Alder Avenue.

4. **Off-site Areas:** Three different off-site areas are identified and described below.

    a. **Phase 1/2 Off-site Areas:** Off-site improvements to support the Phase 1 and 2 developments include storm drain, water, sewer, and road improvements, which total 19.1 acres. The majority of the Phase 1/2 off-site areas occur within the SPA, although some portions in the northwest and southeast fall outside of the SPA boundary (Figure 5). These off-site areas occur along Santa Ana Avenue from Alder Avenue in the west to Maple Avenue in the east; Laurel Avenue from Santa Ana Avenue in the north to approximately 1,300 feet south; Locust Avenue from Santa Ana Avenue in the north to Jurupa Avenue in the south; an approximately 1,300-foot segment that from Laurel Avenue in the west to Locust Avenue in the east, approximately 900 feet to the north of Locust Avenue and Jurupa Avenue intersection; Maple Avenue from Santa Ana Avenue in the north to Jurupa Avenue in the south; Linden Avenue from the northeast corner of the SPA to its terminus in the south; 5th Street from Linden Avenue in the west to its terminus to the east; and an approximately 300-foot segment that extends south from the eastern terminus of 5th Street.

    b. **WVLC Off-site Areas:** The WVLC off-site areas are located within the City of Fontana, and impacts were previously analyzed as part of the WVLC project.

Infrastructure improvements within the WVLC off-site areas are necessary for Phases 1/2. This 1.2-acre area consists of an approximately 1,240-foot segment from Locust Avenue in the west to just before Maple Avenue in the east.

c. **SPA Off-site Areas:** The SPA off-site areas are part of a proposed storm drain necessary for the ultimate buildout of the SPA. These segments extend outside of the SPA boundary. This 0.4-acre area consists of two small areas: (1) an approximately 350-foot segment that extends from the southern SPA boundary along Laurel Avenue; and (2) an approximately 590-foot segment that extends from the southwest corner of the SPA to Alder Avenue.

2.0 METHODS

Evaluation of the Study Area included a review of project plans; a literature review of biological resources occurring on the Study Area and surrounding vicinity; a general biological survey, including vegetation mapping and a general habitat assessment; habitat assessment for Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*; DSFLF); habitat assessment and focused surveys for burrowing owl (*Athene cunicularia*; BUOW); jurisdictional assessment; and tree survey. Not all surveys were conducted within the entire Study Area. The methods used to evaluate the biological resources present within the Study Area are discussed in this section.

2.1 NOMENCLATURE

Nomenclature for this report follows Baldwin et al. (2012) for plants. Plant communities were classified in accordance with the Manual of California Vegetation, Second Edition (MCV; Sawyer et al. 2009), with additional vegetation community information taken from Holland (1986) and Oberbauer (1996). Animal nomenclature follows Emmel and Emmel (1973) for butterflies, Center for North American Herpetology (Taggart 2016) for reptiles and amphibians, American Ornithologists' Society (2020) for birds, and Baker et al. (2003) for mammals. Rare plant and sensitive animal statuses are from the Inventory of Rare and Endangered Plants of California (California Native Plant Society [CNPS] 2021a) and the California Natural Diversity Database (CNDDB; California Department of Fish and Wildlife [CDFW] 2021). Rare plant species' habitats and flowering periods are from the Jepson Manual (Baldwin et al. 2012), the Inventory of Rare and Endangered Plants of California (CNPS 2021a), and CNDDB (CDFW 2021). Soil classifications were obtained from the Web Soil Survey (Natural Resources Conservation Service [NRCS] 2021).

2.2 LITERATURE REVIEW

Prior to conducting the site visit, HELIX Environmental Planning, Inc. (HELIX) reviewed regional planning documents, Google Earth aerials (2021), Web Soil Survey (NRCS 2021), and sensitive species database records, including the Inventory of Rare and Endangered Plants of California (CNPS 2021a), CNDDB (CDFW 2021), and critical habitat maps for endangered and threatened species (U.S. Fish and Wildlife Service [USFWS] 2021a). A one-quadrangle database search was conducted on CNDDB and CNPS, which included the Fontana quadrangle. In addition, HELIX reviewed the WVLC Habitat Assessment (MBI 2017) and FEIR (ICF 2018).

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Source: Aerial (MAXAR, 2020)

HELIX Environmental Planning

Aerial Photograph

Figure 5

2.3 FIELD SURVEYS

Field surveys were conducted to document existing conditions within the Study Area and surrounding lands. A general biological survey and habitat assessment were conducted on Project Sites 1 through 4, Phase 1/2 off-sites areas, and remaining areas within the SPA to map existing vegetation communities and to determine habitat suitability for sensitive plant and animal species. The WVLC off-site areas along Jurupa were addressed as part of the WVLC Project (MBI 2017, ICF 2018). Due to access restrictions, other portions of the SPA and the SPA off-site areas were assessed from the right-of-way using binoculars and desktop aerial review. A list of plant and animal species observed and/or detected during the field surveys are provided as Appendix B, *Plant Species Observed* and Appendix C, *Animal Species Observed and/or Detected*, respectively. Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the list of animal species identified is not necessarily a comprehensive account of all species that use the Study Area as species that are nocturnal, secretive, or seasonally restricted may not have been observed.

A DSFLF habitat assessment was conducted for the entire Study Area. BUOW habitat assessments were conducted on Project Sites 1 through 4 and Phase 1/2 off-site areas. Focused BUOW surveys were conducted on Project Sites 2 and 4. A jurisdictional assessment was conducted on Project Sites 1 through 4 and Phase 1/2 off-site areas to determine if jurisdictional resources regulated by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW were present. The WVLC off-site areas were assessed as part of the WVLC Project (MBI 2017, ICF 2018). No other surveys were conducted within or adjacent to the Study Area. A summary of field surveys conducted for the Study Area is provided as Table 1, *Study Area Survey Summary*.

Table 1
STUDY AREA SURVEY SUMMARY

Survey Type	Survey Date	Survey Location	Surveyor
General Biological Survey	01/20/21	Project Site 1 (north) [1]	Daniel Torres[2]
	04/10/20	Project Site 1 (south)[3]	Daniel Torres
	12/19/17	Project Site 2	Ezekiel Cooley[2] Lauren Singleton[2]
	01/20/21	Project Sites 3 and 4	Daniel Torres
	04/10/20	Phase 1/2 Off-site Areas (east)[4]	Daniel Torres
	01/20/21	Phase 1/2 Off-site Areas (west)[5]	Daniel Torres
	06/16/21	Phase 1/2 Off-site Areas (southeast)[6]	Matthew Dimson[2]
	04/10/20	Specific Plan Area	Daniel Torres
Delhi Sands Flower-loving Fly Habitat Assessment	10/16/20	Study Area	Thomas J. McGill[7]
Burrowing Owl Habitat Assessment	01/20/21	Project Site 1 (north)	Daniel Torres
	04/10/20	Project Site 1 (south)	Daniel Torres
	12/19/17	Project Site 2	Ezekiel Cooley Lauren Singleton
	01/20/21	Project Sites 3 and 4	Daniel Torres
	04/10/20	Phase 1/2 Off-site Areas (east)	Daniel Torres
	01/20/21	Phase 1/2 Off-site Areas (west)	Daniel Torres
	06/16/21	Phase 1/2 Off-site Areas (southeast)	Matthew Dimson

Survey Type	Survey Date	Survey Location	Surveyor
Burrowing Owl Focused Surveys	02/20/18 - 06/21/18	Project Site 2	Ezekiel Cooley
	02/21/21 - 06/16/21	Project Site 4	Matthew Dimson Jessica Lee[2]
Jurisdictional Assessment	07/06/21	Project Sites 1-4; Phase 1/2 Off-site Areas	Travis McGill[7]
Tree Survey	06/24/21	Project Sites 1-4	Daniel Torres

1 Project Site 1 (north) covers the northern half of Project Site 1.
2 HELIX Environmental Planning, Inc.
3 Project Site 1 (south) covers the southern half of Project Site 1.
4 Phase 1/2 Off-site Areas (east) covers off-site areas east of Locust Avenue and north of Jurupa Avenue.
5 Phase 1/2 Off-site Areas (west) covers off-site areas west of Locust Avenue.
6 Phase 1/2 Off-site Areas (southeast) covers off-site areas east of Maple Avenue and south of Jurupa Avenue.
7 ELMT Consulting, Inc.

2.3.1 General Biological Survey

General biological surveys were conducted on Project Site 2 by HELIX Biologists Ezekiel Cooley and Lauren Singleton on December 19, 2017; Project Site 1 (south),[1] Phase 1/2 off-site areas (east),[2] and other areas within the SPA by HELIX Biologist Daniel Torres on April 10, 2020; Project Site 1 (north),[3] Project Site 3, Project Site 4, and Phase 1/2 off-site areas (west)[4] by Mr. Torres on January 20, 2021; and Phase 1/2 off-site areas (southeast)[5] by HELIX Biologist Matthew Dimson on June 16, 2021. Vegetation communities were classified and mapped in accordance with MCV (Sawyer et al., 2009), with additional vegetation community information taken from Holland (1986) and Oberbauer (1996). Vegetation was mapped on a 150-foot (1 inch = 150 feet) aerial photograph of the site. Vegetation communities were mapped by HELIX to one-tenth of an acre (0.1 acre). Project Sites 1 through 4 and Phase 1/2 off-site areas were surveyed on foot with the aid of binoculars, while other portions of the SPA and SPA off-site areas were generally assessed from the right-of-way and review of aerials. A subsequent environmental review would likely be required for future projects within other portions of the SPA, which would include greater detail regarding sensitive biological resources present within these areas.

Representative photographs of the Study Area were taken, with select photographs included in this report as Appendix D, *Representative Site Photographs*. Plant and animal species observed or otherwise detected were recorded in field notebooks. Animal identifications were made in the field by direct, visual observation or indirectly by detection of calls, burrows, tracks, or scat. Plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs.

2.3.2 Delhi Sands Flower-loving Fly

The Study Area supports mapped Delhi sands soil, which can support suitable habitat for DSFLF. A habitat assessment for DSFLF was conducted within the entire Study Area. Dr. Thomas J. McGill of ELMT Consulting, Inc. (ELMT) conducted the habitat assessment on October 16, 2020. The DSFLF habitat assessment findings are documented in a separate letter report included as Appendix E, *Delhi Sands Flower-Loving Fly Habitat Suitability Assessment Report.*

1 Project Site 1 (south) covers the southern half of Project Site 1.
2 Phase 1/2 Off-site Areas (east) covers off-site areas east of Locust Avenue and north of Jurupa Avenue.
3 Project Site 1 (north) covers the northern half of Project Site 1.
4 Phase 1/2 Off-site Areas (west) covers off-site areas west of Locust Avenue.
5 Phase 1/2 Off-site Areas (southeast) covers off-site areas east of Maple Avenue and south of Jurupa Avenue.

2.3.3 Burrowing Owl

BUOW habitat assessments were conducted on Project Site 2 by Mr. Cooley and Ms. Singleton on December 19, 2017; Project Site 1 (south) and Phase 1/2 off-site areas (east) by Mr. Torres on April 10, 2020; Project Site 1 (north), Project Site 3, Project Site 4, and Phase 1/2 off-site areas (west) by Mr. Torres on January 20, 2021; and Phase 1/2 off-site areas (southeast) by Mr. Dimson on June 16, 2021. The habitat assessments were conducted to identify areas with potential BUOW habitat and eliminate those areas that did not contain habitat suitable to support the species. All suitable burrows (i.e., greater than approximately four inches [11 cm] in height and width and greater than approximately 59 inches [150 cm] in depth) and burrow surrogates were recorded using a handheld Global Positioning System (GPS) unit. The assessments included an approximately 500-foot (150-m) buffer zone around each area. No suitable BUOW habitat was identified on Project Sites 1 or 3, or Phase 1/2 off-site areas. The results of the BUOW habitat assessments conducted on Project Sites 1, 3, and Phase 1/2 off-site areas are included as Appendix F, *Burrowing Owl Habitat Assessment Report*. Suitable BUOW habitat was identified on Project Sites 2 and 4. Focused surveys were conducted on Project Site 2 in 2018 and Project Site 4 in 2021, which are described in detail below.

Focused surveys for BUOW were conducted on Project Site 2 between February 20 and June 21, 2018, by Mr. Cooley and Project Site 4 between February 21 and June 16, 2021, by Mr. Dimson and HELIX Biologist Jessica Lee. Each survey consisted of four breeding season surveys (February 1 through August 31) that were performed in accordance with the current CDFW survey guidelines (California Department of Fish and Game [CDFG] 2012). The surveys were spaced at least three weeks apart, with at least one survey conducted between February 15 and April 15, and the remaining three surveys conducted between April 15 and July 15, with at least one of these surveys occurring after June 15. The biologists visually searched for BUOW sign and individuals with the aid of binoculars by slowly walking meandering transects spaced no more than 65 feet (20 meters) apart through areas of potential habitat. Fence posts, rocks, and other possible perching locations, as well as mammal burrows (especially those of California ground squirrel [*Otospermophilus beecheyi*]) potentially suitable for use by BUOW, were inspected. Burrows were searched for sign of recent BUOW occupation, including pellets with regurgitated fur, bones, and insect parts; whitewash (excrement); tracks; and feathers. If observed, BUOW sign and/or individuals were recorded with a handheld GPS unit. The findings for the focused BUOW surveys conducted on Project Sites 2 and 4 are included as Appendix G, *Project Site 2 Burrowing Owl Focused Survey Report*, and Appendix H, *Project Site 4 Burrowing Owl Focused Survey Report*, respectively.

2.3.4 Jurisdictional Assessment

On July 6, 2021, Travis McGill of ELMT conducted a jurisdictional assessment within Project Sites 1 through 4 and Phase 1/2 off-site areas. The assessment was conducted to identify jurisdictional waters potentially subject to USACE jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), RWQCB jurisdiction pursuant to Section 401 of the CWA and the State Porte-Cologne Water Quality Control Act, and streambed habitats potentially subject to CDFW jurisdiction pursuant to Sections 1600 *et seq.* of the California Fish and Game (CFG) Code. Data collection was targeted in areas that were deemed to have the potential to support jurisdictional resources, such as the presence of an ordinary high water mark, the presence of a bed/bank and streambed associated vegetation, and/or other surface indications of streambed hydrology. The results of the jurisdictional delineation are summarized in the delineation report included as Appendix I, *Bloomington Business Park Specific Plan Jurisdictional Delineation Report*. Other areas within the SPA were generally assessed by HELIX in the field from the right-of-way and aerial review during the general biological surveys (see Section 2.3.1 above).

2.3.5 Tree Survey

A tree survey was conducted by Mr. Torres (International Society of Arboriculture [ISA] WE-12249) on June 24, 2021, to identify trees that are considered "regulated" under the County's Code of Ordinances (Section 88.01.070). Under these guidelines, the following trees within the Valley region of the County are considered regulated: (1) all living native trees with a stem diameter of six inches or greater when measured four and a half feet above natural graded (diameter at breast height [DBH]); and (2) three or more palm trees in linear plantings at least 50 feet long within established windrows or parkways plantings.

Project Sites 1 through 4 were carefully surveyed for regulated trees. Areas not accessible by foot were surveyed with the aid of binoculars. Other areas within the SPA were surveyed more generally.

3.0 RESULTS

3.1 ENVIRONMENTAL SETTING

Specific Plan Area

The SPA is located north of the Jurupa Mountains and has supported agricultural and rural residential use as early as 1938 (Historic Aerials 1938). The SPA currently supports a mixture of rural residential homes, plant nurseries, small ranches, and vacant lots dominated by upland mustard fields. The topography of the SPA is primarily flat, with elevations ranging from approximately 1,005 feet above mean sea level (AMSL) in the southeastern corner to 1,100 feet above AMSL near the southwestern corner. The main soil type mapped within the SPA is Tujunga loamy sand (9 to 15 percent; NRCS 2021; Figure 6, *Soils*). The southwestern portion of the site is mostly mapped as Delhi fine sand with small pockets of Cieneba sandy loam (9 to 15 percent slopes) and Cieneba-rock outcrop complex (30 to 50 percent slopes; NRCS 2021).

Immediate surrounding land uses include existing residential development to the north and west, two schools to the northwest and northeast, industrial development to the east, and undeveloped land and a community park to the south. The SPA is located approximately 1.1 miles to the northeast of Martin Tudor Jurupa Hills Regional Park and 11.5 miles to the south of San Bernardino National Forest.

Project Site 1

Project Site 1 is located in the southeastern portion of the SPA. The site comprises rural residential homes. Elevations on Project Site 1 range from approximately 1,005 feet AMSL near the southeastern boundary of the site to 1,021 feet AMSL near the northwestern corner. The entire site is mapped as Tujunga loamy sand (9 to 15 percent; Figure 6; NRCS 2021).

Project Site 2

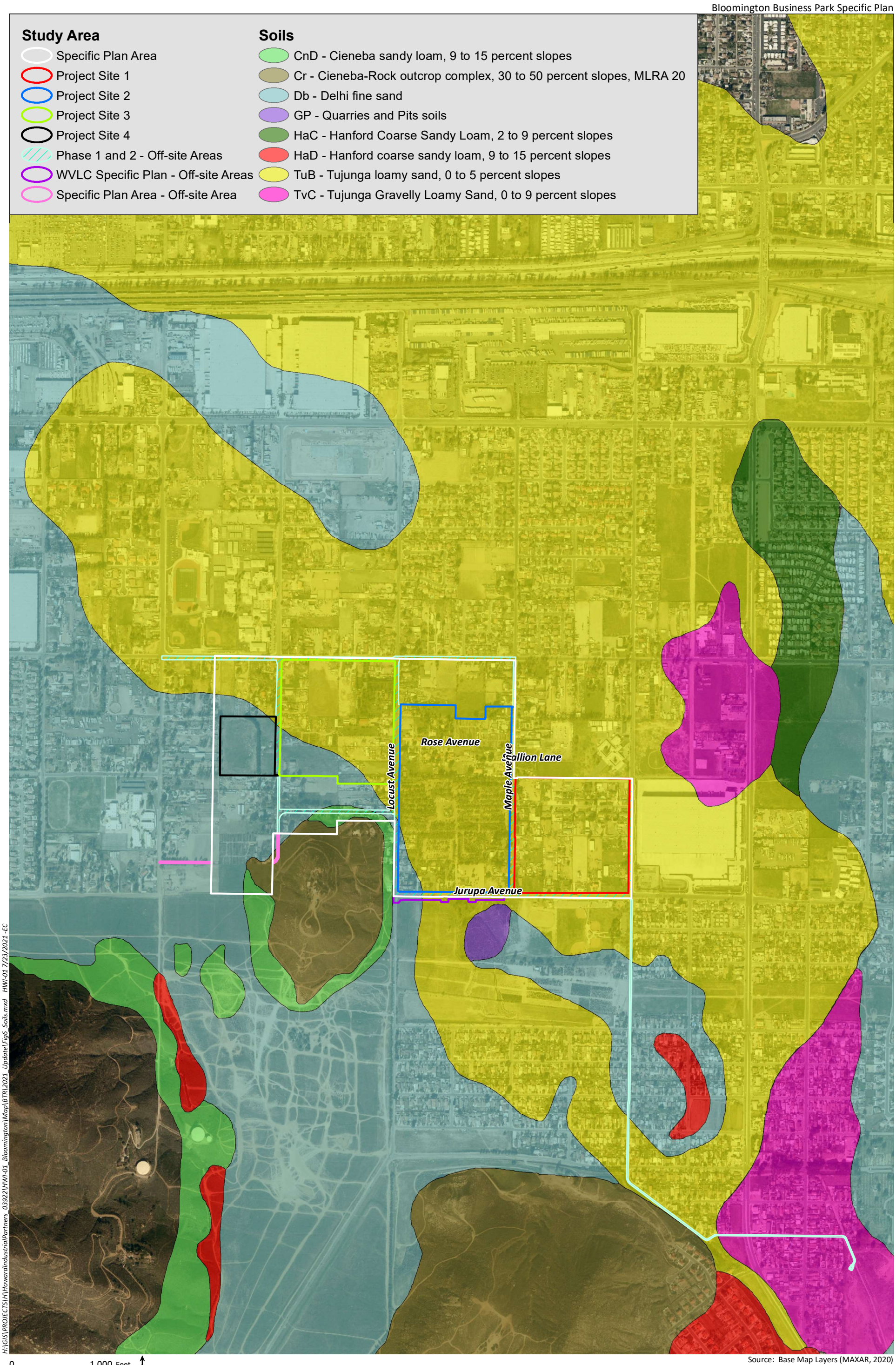
Project Site 2 is located in the central-eastern portion of the SPA. The site is mostly developed with rural residential housing and active nurseries making up approximately 80 percent of the land use. Elevations on Project Site 2 range from approximately 1,010 feet AMSL near the southern boundary of the site to

Study Area

- Specific Plan Area
- Project Site 1
- Project Site 2
- Project Site 3
- Project Site 4
- Phase 1 and 2 - Off-site Areas
- WVLC Specific Plan - Off-site Areas
- Specific Plan Area - Off-site Area

Soils

- CnD - Cieneba sandy loam, 9 to 15 percent slopes
- Cr - Cieneba-Rock outcrop complex, 30 to 50 percent slopes, MLRA 20
- Db - Delhi fine sand
- GP - Quarries and Pits soils
- HaC - Hanford Coarse Sandy Loam, 2 to 9 percent slopes
- HaD - Hanford coarse sandy loam, 9 to 15 percent slopes
- TuB - Tujunga loamy sand, 0 to 5 percent slopes
- TvC - Tujunga Gravelly Loamy Sand, 0 to 9 percent slopes



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0 1,000 Feet

Source: Base Map Layers (MAXAR, 2020)

HELIX Environmental Planning

Soils

Figure 6

1,040 feet AMSL near the northeastern corner. The site is mostly mapped as Tujunga loamy sand (9 to 15 percent), with the southwestern corner mapped as Delhi fine sands (Figure 6; NRCS 2021).

Project Site 3

Project Site 3 is located in the central-western portion of the SPA. The site is mostly developed and consists of rural residential housing, an active nursery, and vacant housing lots. Elevations on Project Site 3 range from 1,029 feet AMSL near the southeastern corner of the project site to approximately 1,048 feet AMSL near the northwestern corner. Soils on the site are mostly mapped as Tujunga loamy sand (0 to 5 percent slopes), with the southwestern corner mapped as Delhi fine sands (0 to 5 percent slopes; Figure 6; NRCS 2021).

Project Site 4

Project Site 4 is located near the western boundary of the SPA. The site comprises a vacant rural residential lot. Elevations on Project Site 4 range from approximately 1,036 feet AMSL near the southeastern corner of the site to 1,045 feet AMSL near the northeastern corner. Soils on the site are mostly mapped as Delhi fine sands, with a small area in the northwestern corner mapped as Tujunga loamy sand (0 to 5 percent slopes; Figure 6; NRCS 2021).

Phase 1/2 Off-Site Areas

Phase 1/2 off-site areas include areas that require infrastructure improvements to support Project Sites 1 through 4. Phase 1/2 off-site areas consist almost entirely of existing development, although some small portions along Locust Avenue and Maple Avenue overlap with adjacent nurseries in the existing right-of-way. The most southeastern end of the off-site area (south of 5th Street) extends into a small area of disturbed California buckwheat scrub. Elevations range from approximately 924 feet AMSL south of 5th Street to 1,043 feet AMSL at the northern end of Maple Avenue. The majority of the Phase 1/2 off-site areas are mapped as Tujunga loamy sand (9 to 15 percent), although the southern portion of Laurel Avenue and Locust Avenue, and the central portion of Linden Avenue, are mapped as Delhi fine sands (Figure 6; NRCS 2021). Fifth Street is mostly mapped as Tujunga gravelly loamy sand (0 to 9 percent slopes).

WVLC Off-site Areas

WVLC off-site areas include areas along the southside of Jurupa Avenue that extend outside of the SPA boundary, which were previously analyzed as part of the WVLC Project. These areas are located within the City of Fontana. The WVLC off-site areas were mapped as a mixture of disturbed and upland mustard fields. Elevations range from approximately 1,014 feet AMSL at the western end to 1,027 feet AMSL at the eastern end. Soils within the WVLC are mostly mapped as Tujunga loamy sand (0 to 5 percent slopes), with the western portion mapped as Delhi fine sands (NRCS 2021).

SPA Off-site Areas

The SPA off-site areas are part of a proposed storm drain necessary for the ultimate buildout of the SPA. These areas extend outside of the SPA boundary. SPA off-site areas consist mostly of ornamental trees with a small area located within Laurel Avenue right-of-way. Elevations range from approximately 1,033 feet AMSL to the west of Alder Road to 1,058 feet AMSL at the south end of Laurel Avenue. Soils within

the SPA off-site areas are mostly mapped as Delhi fine sands, with a small portion mapped as Cieneba-Rock outcrop complex (30 to 50 percent slopes).

3.2 VEGETATION COMMUNITIES

Seven vegetation communities and land uses were mapped within the Study Area (Table 2, *Vegetation Communities*; Figure 7, *Vegetation and Land Uses*). The CDFW CaCodes and Holland/Oberbauer (1996) Element Codes are provided in parentheses next to each community name in Table 2. A brief description of each vegetation community and land use mapped on the Study Area is provided below.

Table 2
VEGETATION AND LAND USES

Habitat Type	Project Site 1 (acres)[1]	Project Site 2 (acres)[1]	Project Site 3 (acres)[1]	Project Site 4 (acres)[1]	Phase 1/2 Off-site Areas (acres)[1,2]	WVLC Off-site Areas (acres)[1,3]	SPA Off-site Areas (acres)[1,4]	Remaining SPA (acres)[1,5]	TOTAL Study Area (acres)[1]
Developed (CaCode[6] NA[7]/O[8] 12000)	37.7	18.2	23.8	0.0	16.2	0.4	0.1	43.3	**139.7**
Disturbed (CaCode NA/O 11300)	0.0	7.7	0.0	0.0	2.2	0.0	0.0[9]	16.0	**25.9**
Disturbed California Buckwheat Scrub (CaCode 32.040.02/H[10] 32300)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.1**
Eucalyptus Groves (CaCode 79.100.02/O 79100)	0.0	0.6	0.0	0.0	0.0[11]	0.0	0.0	0.0[12]	**0.6**
Nursery (CaCode NA/O 10000)	0.0	32.0	6.5	0.0	0.6	0.0	0.0	4.1	**43.2**
Ornamental (CaCode NA/O 11300)[13]	0.0	0.0	0.0	0.6	0.0	0.0	0.3	0.0	**0.9**
Upland Mustard Fields (CaCode 42.011.05/O 11300)	0.0	0.0	8.6	8.8	0.0[14]	0.8	0.0	0.0	**18.2**
TOTAL	**37.7**	**58.5**	**38.9**	**9.4**	**19.1**	**1.2**	**0.4**	**63.4**	**228.6**

1 Acreages are rounded to the nearest tenth.
2 Off-site improvements to support the development of Phases 1 and 2. These areas mostly occur within the SPA, although some are located outside of the SPA.
3 Off-site improvements located outside of the SPA that were previously assessed as part of the West Valley Logistics Center (WVLC) Project.
4 Off-site improvements located outside of the SPA that are necessary for the ultimate buildout of the SPA. These areas were assessed at a programmatic level.
5 Remaining Specific Plan Area (SPA) acreages in this table include areas within the SPA but exclude Project Sites 1 through 4 and Phase 1/2 off-site areas that are located within the SPA. These areas were assessed at a programmatic level.
6 CDFW CaCodes.
7 Not Applicable.
8 Oberbauer Element Code.
9 Actual acreage is 0.04 acre.
10 Holland Element Code.
11 Actual acreage is 0.01 acre.
12 Actual acreage is 0.01 acre.

3.2.1 Developed

Developed land is where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained.

The majority of the Study Area (139.7 acres; 61 percent) consisted of existing developed areas, including rural residential homes, landscape vegetation, roads, and sidewalks. The entire Project Site 1 was mapped as developed (37.7 acres). Most of Project Site 3 (23.8 acres), Phase 1/2 off-site Areas (16.2 acres), and remaining areas within the SPA (43.3 acres) were mapped as developed. Developed areas were also mapped within a portion of Project Site 2 (18.2 acres), WVLC off-site areas (0.4 acre), and SPA off-site areas (0.1 acre).

3.2.2 Disturbed

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads) or actively maintained or heavily disturbed areas that are mostly unvegetated but may support scattered non-native plant species, such as ornamentals or ruderal exotic species that take advantage of disturbance. Disturbed habitat is similar to the upland mustard fields community described below (see Section 3.2.7), although disturbed areas generally support little to no vegetative cover.

Disturbed areas were observed in patches throughout the Study Area, totaling 25.9 acres. Disturbed areas were mapped within Project Site 2 (7.7 acres), Phase 1/2 off-site areas (2.2 acres), SPA off-site areas (<0.01 acre), and remaining areas within the SPA (16.0 acres). Disturbed areas consisted mostly of animal pens, vacant lots, and dirt shoulders adjacent to paved roadways. The disturbed areas were mainly unvegetated, although some scattered non-native species observed included cheeseweed (*Malva parviflora*), common dandelion (*Taraxacum officinale*), London rocket (*Sisymbrium irio*), prickly sow thistle (*Sonchus asper*), redstem filaree (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), and wild lettuce (*Lactuca serriola*).

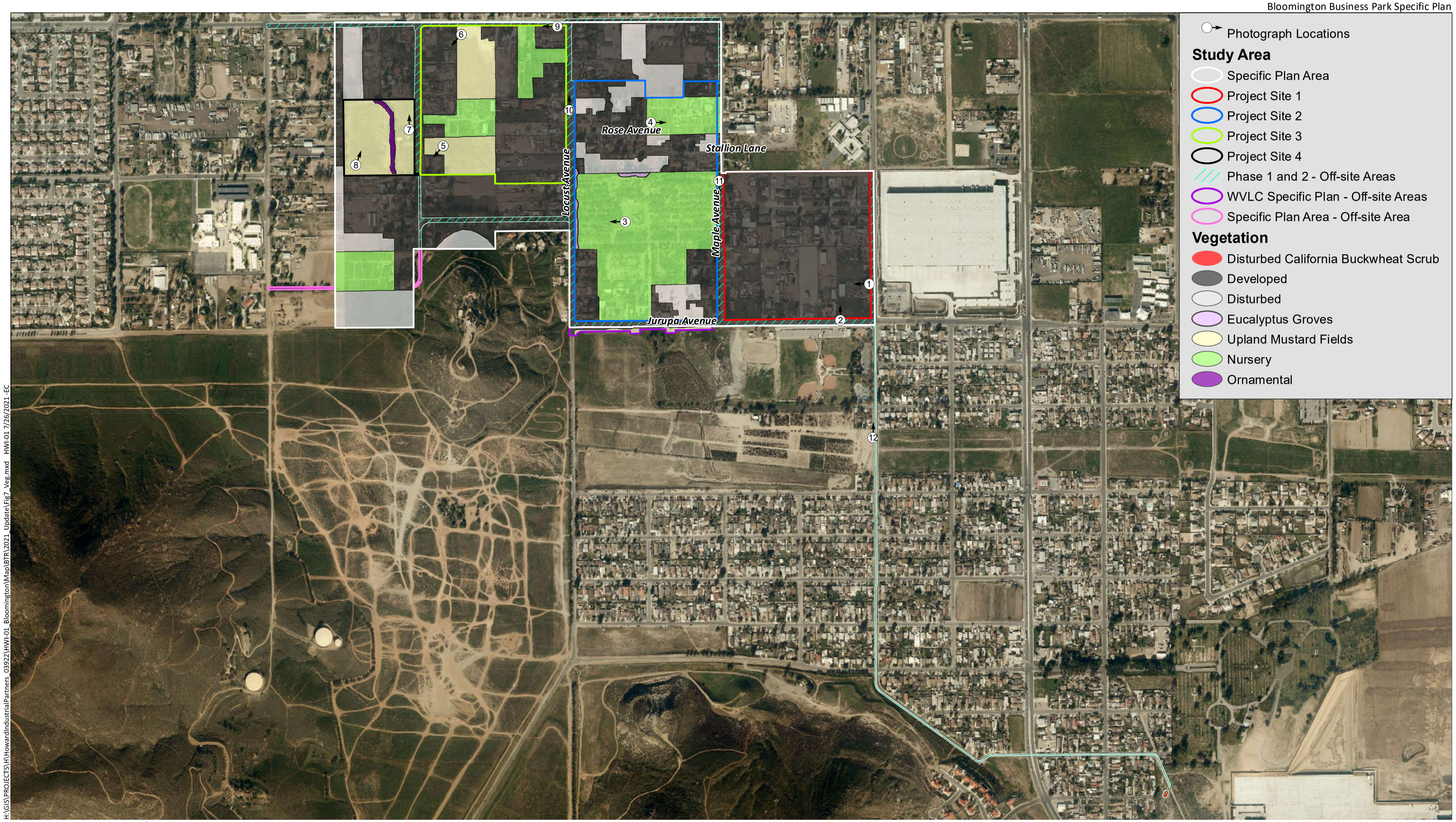
3.2.3 Disturbed California Buckwheat Scrub

Disturbed/California buckwheat scrub consists of mostly disturbed areas as described in Section 3.2.2 above and included a sparse amount of California buckwheat (*Eriogonum fasciculatum*)

Disturbed California buckwheat was only observed in one location at the most southeastern end of the Phase 1/2 off-site area, totaling 0.1 acre. This area was mostly unvegetated, with roughly 12 to 13 California buckwheat shrubs.

3.2.4 Eucalyptus Woodland

Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* spp.), an introduced species that has often been planted purposely for wind blocking, ornamental, and hardwood production purposes. Most groves are monotypic, with the most common species being either the blue gum (*Eucalyptus globulus*) or red gum (*Eucalyptus camaldulensis*). The understory within well-established groves is usually very sparse due to the closed canopy and allelopathic nature of the abundant leaf and bark litter. If sufficient moisture is available, this species becomes naturalized and can reproduce and expand its range. The sparse understory offers only limited wildlife habitat; however, these woodlands provide excellent



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0 800 Feet

Source: Aerial (MAXAR, 2020)

HELIX Environmental Planning

Vegetation and Land Use

Figure 7

nesting sites for a variety of raptors. During winter migrations, a large variety of warblers may be found feeding on the insects that are attracted to the eucalyptus flowers.

Eucalyptus woodland was observed as small patches totaling 0.6 acre, including near the center of Project Site 2 (0.6 acre), within Phase 1/2 off-site areas (<0.1 acre), and remaining areas within the SPA (<0.1 acre). The eucalyptus woodland within the Study Area was dominated by red gum.

3.2.5 Nursery

Nursery is characterized as permanent structures related to the nursery operations and/or potted plants temporarily placed in rows, which prevents the growth of most other vegetation.

Nursery was observed in several large patches throughout the Study Area, totaling 43.2 acres. Nursery areas dominated Project Site 2 (32.0 acres), and were also mapped within Project Site 3 (6.5 acres), Phase 1/2 off-site areas (0.6 acre), and remaining areas within the SPA (4.1 acres). These areas consisted of cultivated plants for commercial and retail sale, including aloe yucca (*Yucca aloifolia*), candelabra aloe (*Aloe arborescens*), century plant (*Agave americana*), date palm (*Phoenix dactylifera*), European fan palm (*Chamaerops humilis*), Mexican blue palm (*Brahea armata*), pygmy date palm (*Phoenix roebelenii*), ponytail palm (*Beaucarnea recurvata*), and queen palm (*Syagrus romanzoffiana*).

3.2.6 Ornamental

The ornamental vegetation community is characterized as stands of naturalized trees and shrubs (e.g., acacias [*Acacia* spp.], peppertrees [*Schinus* spp.]), many of which are also used in landscaping.

Ornamental vegetation was observed on Project Site 4 (0.6 acre) and SPA off-site areas (0.3 acre), totaling 0.9 acre. These areas were dominated by Indian laurel fig (*Ficus macrocarpa*) in the canopy. The understory comprised mostly leaf litter, with some scattered non-native foxtail barley and golden crownbeard (*Verbesina encelioides*).

3.2.7 Upland Mustard Fields

Upland mustard fields community is typically associated with land that has been heavily influenced by human activities, including areas adjacent to roads, manufactured slopes, and abandoned lots. Upland mustard fields are dominated by non-native mustards, such as black mustard (*Brassica nigra*) and short-pod mustard (*Hirschfeldia incana*), and other non-native annual species that take advantage of previously cleared or abandoned landscaping or land showing signs of past or present animal usage that removes any capability of providing viable habitat.

Upland mustard fields were observed in several large patches in the northwestern portion of the Study Area, totaling 18.2 acres. Upland mustard fields dominated Project Site 4 (8.8 acres), and were also mapped within Project Site 3 (8.6 acres), Phase 1/2 off-site areas (<0.1), and WVLC off-site areas (0.8 acre). These areas consisted mostly of abandoned agricultural land and rural residential lots that were not paved or developed. Upland mustard fields were dominated by short-pod mustard, as well as cheeseweed, foxtail barley (*Hordeum murinum*), London rocket, and redstem filaree. Some scattered native annual species were also observed, including Menzies' fiddleneck *(Amsinckia menziesii*) and telegraph weed (*Heterotheca grandiflora*).

3.3 PLANTS

HELIX identified a total of 68 species on Project Sites 1 through 4 and Phase 1/2 off-site areas during surveys, of which 58 (85 percent) are non-native species (Appendix B). A comprehensive plant list for other portions of the SPA was not prepared since an in-depth field survey was not conducted, and this programmatic level assessment does not require that amount of detail. A subsequent review would likely be required that would include greater detail regarding plant species occurring or expected to occur on the site.

3.4 ANIMALS

A total of 37 animal species were identified on Project Sites 1 through 4 and Phase 1/2 off-site areas during biological surveys, including one reptile species, 34 bird species, and two mammal species (Appendix C). A comprehensive animal list for other portions of the SPA was not prepared since an in-depth field survey was not conducted, and this programmatic level assessment does not require that amount of detail. A subsequent review would likely be required that would include greater detail regarding general animal species occurring or expected to occur on the site.

3.5 SENSITIVE BIOLOGICAL RESOURCES

3.5.1 Rare Plant Species

Rare plant species are uncommon or limited in that they: (1) are only found in the region; (2) are a local representative of a species or association of species not otherwise found in the region; or (3) are severely depleted within their ranges or within the region. Rare plant species include those species listed by CNPS with a California Rare Plant Rank (CRPR) of 1, 2, or 3 or federally and state listed endangered and threatened species. Species with a CRPR of 4 may be considered rare if a population is locally uncommon, at the periphery of the species' range, sustained heavy losses, shows unusual morphology, or occurs on unusual substrates (CNPS 2021b). Focused surveys concentrated on the identification of CRPR 1, 2, and 3 species.

Twelve rare plant species were recorded within the Fontana quadrangle database search conducted on CNDDB (CDFW 2021) and CNPS (2021a). These species are included in Appendix J, *Rare Plant Species Potential to Occur.*

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

Due to lack of suitable habitat, none of the twelve rare plant species are expected to occur within Project Sites 1 through 4 or Phase 1/2 off-site areas.

Specific Plan Area

The twelve rare plant species are not expected to occur within other portions of the SPA (or SPA off-site areas) based on information obtained from the literature review and observations made during the general biological survey. However, this evaluation was conducted at a programmatic level, and project-level evaluations would further refine the potential to occur determinations. Potential additional species and precise locations and numbers of rare plant species (if any) would be identified through project-level surveys for proposed future development.

WVLC Off-site Areas

The WVLC Habitat Assessment did not identify any suitable habitat for rare plant species within the WVLC off-site (MBI 2017; Appendix A).

3.5.2 Sensitive Animal Species

Sensitive animal species include federally and state listed endangered and threatened species, candidate species for listing by USFWS or CDFW, and/or are species of special concern (SSC) pursuant to CDFW.

A total of 17 sensitive animal species were recorded within the Fontana quadrangle database search conducted on CNDDB (CDFW 2021). These species are included in Appendix K, *Sensitive Animal Species Potential to Occur.* An evaluation of each sensitive animal species' potential to occur on Project Sites 1 through and 4 and Phase 1/2 off-site areas are also provided in Appendix K. The potential for sensitive animal species to occur in other portions of the SPA (and the SPA off-site area) were based on information obtained from the literature review and observations made during the general biological survey. However, this evaluation was conducted at a programmatic level, and project-level evaluations would further refine the potential to occur determinations. Potential additional species and precise locations and numbers of sensitive animal species (if any) would be identified through project-level surveys for proposed future development.

Of the 17 sensitive animal species recorded within the vicinity of the Study Area, 12 species were considered to have no potential to occur due to lack of suitable habitat. Three species were determined to have a low potential to occur within the Study Area, including BUOW, pocketed free-tailed bat (*Nyctinomops femorasaccus*), and Crotch bumblebee (*Bombus crotchii*). Crotch bumblebee has a low potential to occur within the disturbed California buckwheat scrub in the southeastern portion of the Phase 1/2 off-site area. This species is currently listed on CNDDB as a State Candidate Endangered Species. However, the Sacramento Superior Court recently ruled that insects are not subject to protection under the California Endangered Species Act (Almond Alliance et al. v. California Fish and Game Commission). Therefore, this species is not evaluated further in this report. Western yellow bat (*Lasiurus xanthinus*) was determined to have a moderate potential to occur on the Study Area. Based on a programmatic analysis, San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) was determined to have a low potential to occur within other portions of the SPA. Suitable habitat for this species was not identified within Project Sites 1 through 4 or the Phase 1/2 off-site areas.

Based on the results of the DSFLF habitat assessment, suitable habitat is not present on the Study Area. The four species with a potential to occur within the Study Area (BUOW, pocketed free-tailed bat, San Diego black jackrabbit, and western yellow bat), in addition to DSFLF, are discussed in detail below. These species are also discussed in relation to the WVLC off-site areas, as analyzed for the WVLC Project. No other sensitive animal species are expected to occur within the Study Area.

Burrowing Owl

The BUOW is a state SSC that inhabits dry, low-growing, sparse vegetation, such as the disturbed and non-native vegetation habitats that occur throughout the SPA. This species was observed in 2017, approximately 0.3 mile to the south of the Study Area, as documented in the habitat assessment report for the WVLC Project (MBI 2017).

Project Sites 1 through 4 and Phase 1/2 Off-site Areas: BUOW habitat assessments were conducted on Project Sites 1 through 4 and Phase 1/2 off-site areas (see Table 1). During the habitat assessments, it was determined that Project Sites 1 and 3, and Phase 1/2 off-site areas, do not support suitable BUOW habitat as defined in Appendix C of the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). The detailed report findings for the BUOW habitat assessments are included as Appendix F.

Project Sites 2 and 4 support potentially suitable BUOW habitat. Focused BUOW surveys were conducted on Project Site 2 between February and June 2018 and on Project Site 4 between February and June 2021. No BUOWs were observed during the focused surveys. Therefore, BUOW does not currently occupy Project Sites 2 or 4. The detailed report findings for the Project Sites 2 and 4 BUOW surveys are included as Appendices G and H, respectively.

Specific Plan Area: Potentially suitable BUOW habitat appears to be present throughout other areas of the SPA (and SPA off-site areas). As specific projects are proposed, focused burrow surveys should be conducted to determine if suitable burrows are present, as defined by CDFW (CDFW 2012).

WVLC Off-site Areas: The WVLC off-site areas support potentially suitable BUOW habitat. One BUOW was observed on the WVLC Project site, approximately 0.15 miles west of the intersection of Locust Avenue and 10th Street (MBI 2017; Appendix A). However, no BUOWs were observed within the WVLC off-site areas during WVLC focused surveys.

Delhi Sands Flower-loving Fly

The DSFLF is a federally endangered species that is endemic to the Colton Dunes (Delhi soil series) of southwestern San Bernardino and northwestern Riverside Counties. Delhi fine sand is mapped throughout the Study Area. A DSFLF habitat assessment was performed within the entire Study Area on October 16, 2020 by ELMT. Based on the results of the habitat assessment, conditions were determined either unsuitable or very low quality for DSFLF in all areas that were assessed. The majority of the Study Area supports unsuitable habitat due to lack of suitable Delhi sands soil and the presence of residential developments that impede aeolian processes necessary to form Delhi sand dunes. One short segment along Jurupa Avenue between Alder Avenue and Laurel Avenue is located within an open area mapped as Delhi Sand soils. Dr. McGill determined these areas are highly unlikely to be occupied by DSFLF based on mixing with Tujunga sandy loam soils or contamination with organic matter from decades of disking crops back into soil. The detailed report findings for the DSFLF habitat assessment surveys are included as Appendix E.

Pocketed Free-tailed Bat

Pocketed free-tailed bat is a state SSC that roosts in crevices within high rocky cliffs, caverns, or buildings. This species typically forages over water and among trees within arid habitats, such as pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian. Pocketed free-tailed bat was recorded in 1985, approximately 3.0 miles to the northwest of the Study Area.

Project Sites 1 through 4 and Phase 1/2 Off-site Areas: Residential buildings and other structures located throughout Project Sites 1 through 4 may support suitable roosting habitat for this species. The palm nursery and other trees throughout the sites may provide suitable foraging habitat. Phase 1/2 off-site areas do not support suitable roosting or foraging habitat but are adjacent to potentially suitable habitat.

Specific Plan Area: Residential buildings and other structures located throughout the SPA (and SPA off-site areas) may support suitable roosting habitat for this species. Trees located throughout the area may provide suitable foraging habitat.

WVLC Off-site Areas: The WVLC Habitat Assessment did not identify suitable habitat for pocketed free-tailed bat within the WVLC off-site areas (MBI 2017; Appendix A).

San Diego Black-tailed Jackrabbit

San Diego black-tailed jackrabbit is a state SSC that occurs primarily in open habitats, including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present. This species was observed in 2014 during the habitat assessment for the WVLC Project, approximately 0.5 mile to the southwest of the Study Area (MBI 2017).

Project Sites 1 through 4 and Phase 1/2 Off-site Areas: Project Sites 1 through 4 and Phase 1/2 off-site areas do not support suitable habitat for San Diego black-tailed jackrabbit, and this species is not expected to occur within these areas. These areas consist mostly of existing development, including rural residential homes and plant nurseries.

Specific Plan Area: The SPA (and SPA off-site areas) supports some isolated areas of potentially suitable habitat for this species, particularly in the southern portions.

WVLC Off-site Areas: No suitable habitat for San Diego black-tailed jackrabbit was identified within the WVLC off-site areas. One black-tailed jackrabbit was observed in 2014 within Riversidean sage scrub habitat located in the western portion of the WVLC Project site, approximately 0.5 mile to the south of the Study Area (MBI 2017; Appendix A).

Western Yellow Bat

Western yellow bat is a state SSC that roosts in trees and are commonly found in palm trees and cottonwoods. This species typically forages over water and among trees within riparian, desert riparian, desert wash, and palm oasis habitats. Western yellow bat was recorded in CNDDB in 1996, approximately 2.5 miles northwest of the Study Area (CDFW 2021).

Project Sites 1 through 4 and Phase 1/2 Off-site Areas: Project Sites 1 through 4 support some potentially suitable roosting and foraging habitat based on the presence of nursery palms and other trees located throughout the sites. The Phase 1/2 off-site areas do not support suitable roosting or foraging habitat but are adjacent to potentially suitable habitat.

Specific Plan Area: The SPA (and SPA off-site areas) supports potentially suitable roosting and foraging habitat based on the presence of trees located throughout.

WVLC Off-site Areas: The WVLC Habitat Assessment did not identify suitable habitat for western yellow bat within the WVLC off-site areas MBI 2017; Appendix A).

3.5.3 Sensitive Vegetation Communities/Habitats

Sensitive vegetation communities/habitats are considered either rare within the region or sensitive by CDFW (2021). Communities are given a Global and State ranking on a scale of 1 to 5. Communities

afforded a rank of 5 are most common, while communities with a rank of 1 are considered highly periled. The CDFW considers sensitive communities as those with a rank between S1 and S3.

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

Based on the vegetation mapping, no sensitive vegetation communities were observed on Project Sites 1 through 4 or Phase 1/2 off-site areas (Figure 7).

Specific Plan Area

No sensitive plant communities were observed during the assessment of other portions within the SPA (or SPA off-site areas) or during aerial review of the area (Figure 7). However, this evaluation was conducted at a programmatic level, and project-level evaluations would be required to determine the presence of sensitive plant communities (if any).

WVLC Off-Site Areas

The WVLC Habitat Assessment did not identify any sensitive vegetation communities within the WVLC off-site areas (MBI 2017; Appendix A).

3.5.4 Jurisdictional Waters and Wetlands

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

Based on the results of the jurisdictional assessment performed by ELMT, no jurisdictional waters or wetlands were identified on Project Sites 1 through 4 or Phase 1/2 off-site areas. The detailed report findings for the jurisdictional assessment within the Phase 1/2 off-site areas are included as Appendix I.

Specific Plan Area

No jurisdictional areas were observed during the assessment of other portions within the SPA (or SPA off-site areas), or during aerial review of the areas. However, this evaluation was conducted at a programmatic level, and project-level evaluations would be required to determine jurisdictional limits (if any).

WVLC Off-Site Areas

A jurisdictional delineation was conducted within the WVLC off-site areas as part of the WVLC Project (MBI 2017; Appendix L, *West Valley Logistics Center Jurisdictional Delineation Report*). No jurisdictional features were documented within the WVLC off-site areas. A small ephemeral drainage feature was documented directly to the south of the WVLC off-site areas (Drainage B). However, the drainage feature is located entirely outside of the WVLC off-site areas and is fully avoided by the project.

3.5.5 Habitat and Wildlife Corridor Evaluation

Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Corridors can be local or regional in scale; their functions may vary temporally and spatially based on conditions and species presence. Local wildlife corridors allow access to resources, such as food, water, and shelter within the framework of their daily routine. Animals use these

corridors, which are often hillsides or tributary drainages, to move between different habitats. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations.

Study Area

Regionally, the Study Area is situated at the base of the Jurupa Mountains. The Study Area is approximately 1.8 miles to the northeast of Jurupa Hills Regional Park and 11.5 miles to the south of the San Bernardino National Forest. The Study Area is mostly surrounded by urban development except for the southern portion, which connects to undeveloped land to the south. The Study Area consists mostly of existing development and does not support vegetation communities dominated by native species. Undeveloped portions of the Study Area may provide a limited amount of live-in resources for wildlife.

As previously described, corridors can be local or regional in scale. The Study Area is not considered a regional wildlife corridor since this area does not directly connect two or more large blocks of habitats that would otherwise be fragmented or isolated from one another. The areas to the north, east, and west of the Study Ara are highly urbanized and support limited cover for wildlife moving through the area. Wildlife could potentially access the Study Area from the south. Development would not impede wildlife access to other undeveloped land in the region since the Study Area is located within and at the edge of existing development. The Study Area is not within any wildlife corridors or linkages identified by the South Coast Missing Linkages Project (South Coast Wildlands 2008). The nearest wildlife movement corridor identified by the South Coast Missing Linkages Project is the San Gabriel – San Bernardino Connection located approximately 10 miles to the north of the Study Area.

While the Study Area is not considered a regional wildlife movement corridor, this area does support habitat suitable for local wildlife movement. Common mammals that are adapted to human disturbance (e.g., raccoon [*Procyon lotor*], skunk [*Mephitis* sp.], cottontail rabbits [*Sylvilagus* spp.], and coyote [*Canis latrans*]) may use the Study Area for local movement within the area. Bird species may fly over surrounding development to nest and/or forage within the Study Area. As discussed above, the Study Area supports opportunities for local wildlife movement but does not function as a regional wildlife corridor.

WVLC Off-Site Areas

The WVLC Habitat Assessment did not identify any wildlife corridors within the WVLC off-site areas, although the creation of an avian corridor is proposed in the southern portion of the WVLC Project to maintain and improve avian movement between Jurupa Hills to the west and Rattlesnake Mountain to the east (MBI 2017; Appendix A).

3.5.6 County Regulated Trees

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

No regulated trees as defined by the County's tree measures were observed in Projects Sites 1 through 4. Project Site 2 does support a number of palm trees of various species. However, these trees are not considered regulated trees based on the County's definition since they are a part of ongoing nursery activities. A number of palm trees were also observed as part of existing residential landscaping.

However, these trees are not considered regulated trees since these trees were not planted within established windrows or parkways plantings.

Although some portions of Phase 1/2 off-site areas were mapped as nursery and disturbed buckwheat scrub, infrastructure improvements within Phase 1/2 off-site areas would occur entirely within the existing paved developed right-of-way. One exception is the most southeastern portion of the Phase 1/2 off-site areas located to the south of 5th Street, which supports 0.1 acre of disturbed California buckwheat scrub. This area does not support any regulated trees, as documented by ELMT's jurisdictional delineation report.

Specific Plan Area

Other areas within the SPA (and SPA off-site areas) were more generally assessed for potential regulated trees. One native western sycamore (*Platanus racemosa*) was observed in the front yard of a residential home in the western portion of the SPA. This tree would be considered a regulated tree under the County's tree measures since it is native, and its stem diameter was six inches or greater (approximately 26 inches DBH).

WVLC Off-site Areas

WVLC off-site areas are located within the City of Fontana (City). Therefore, development within these areas are subject to Section 28-65 of the City's Tree Preservation Ordinance, as described in the WVLC Habitat Assessment (MBI 2017). However, a tree survey was not conducted within the WVLC off-site areas.

4.0 REGIONAL AND REGULATORY CONTEXT

Biological resources located within the Study Area are subject to regulatory review by federal, state, and local agencies. Biological resources-related laws and regulations that apply to the project include the Federal Endangered Species Act (FESA), Migratory Bird Treaty Act (MBTA), CWA, California Endangered Species Act (CESA), and CFG Code.

4.1 FEDERAL REGULATIONS

4.1.1 Federal Endangered Species Act

Administered by the USFWS, the FESA provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the FESA. Section 9(a) of the FESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 4(d), 7, and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect a listed species. A biological assessment is required for any major construction activity if it may affect listed species. In this case, take can be authorized via a letter of biological opinion

issued by the USFWS for non-marine related listed species issues. A Section 7 consultation is required when there is a nexus between federally listed species' use of the site and impacts to USACE jurisdictional areas. Section 10(a) allows issuance of permits for "incidental" take of endangered or threatened species. The term "incidental" applies if the taking of a listed species is incidental to and not the purpose of an otherwise lawful activity.

4.1.2 Federal Clean Water Act

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the CWA. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling waters of the U.S., including wetlands and vernal pools, is overseen by USACE under Section 404 of the CWA. Projects may be permitted on an individual basis or may be covered under one of several approved Nationwide Permits. Individual Permits are assessed individually based on the type of action, amount of fill, etc. Individual Permits typically require substantial time (often longer than six months) to review and approve, while Nationwide Permits are pre-approved if a project meets the appropriate conditions. A CWA Section 401 Water Quality Certification, which is administered by the State Water Resources Control Board, must be issued prior to any 404 Permit.

4.1.3 Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is used to place restrictions on the disturbance of active bird nests during the nesting season, which is generally defined as February 15 to August 31 for songbirds. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests, which the nesting season is generally defined as March 15 through August 31 for songbirds and January 1 through August 31 for raptors.

4.1.4 Critical Habitat

As described by the FESA, critical habitat is the geographic area occupied by a threatened or endangered species essential to species conservation that may require special management considerations or protection. Critical habitat also may include specific areas not occupied by the species but have been determined to be essential for species conservation.

Critical habitat does not occur within the Study Area, although a small portion (approximately 0.04 acre) of the WVLC off-site areas is located within coastal California gnatcatcher (*Polioptila californica californica*) critical habitat (USFWS 2021a). No suitable coastal California gnatcatcher habitat is located within or near this area (MBI 2017, ICF 2018; Appendix A), or any other areas within the Study Area. Although a small area of disturbed California buckwheat scrub was mapped within the southeastern portion of the Phase 1/2 off-site area, this location was not considered suitable habitat for coastal California gnatcatcher since this area is highly disturbed and supports only 12 to 13 California buckwheat shrubs.

4.2 STATE REGULATIONS

4.2.1 California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (i.e., impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

4.2.2 California Endangered Species Act

The CESA is similar to the FESA in that it contains a process for the listing of species and regulating potential impacts to listed species. Section 2081 of the CESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes. The golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*) are considered State Fully Protected (SFP) species. An SFP species may not be taken or possessed at any time, and no state licenses or permits may be issued for their take except for collecting the species necessary for scientific research and relocation of the bird species for the protection of livestock (Fish and Game Code Sections 3511, 4700, 5050, and 5515).

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates the collection, transport, and commerce of plants that are listed. The CESA followed the NPPA and covers both plants and animals that are determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated threatened under the CESA.

4.2.3 California Fish and Game Code

4.2.3.1 Protection of Raptor Species

Raptors (birds of prey) and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW.

4.2.3.2 Streambed Alteration Agreement

The CFG Code (Section 1600 et seq.) requires an agreement with the CDFW for projects affecting riparian and wetland habitats through the issuance of a Streambed Alteration Agreement.

4.3 LOCAL REGULATIONS

4.3.1 County of San Bernardino Regulated Tree Protection

Section 88.01.050 of the County's Code of Ordinances (tree measures) requires a permit to remove regulated trees. Within the Valley region of the County, regulated trees are defined in Section 88.01.070 as (1) All living native trees with a stem diameter of six inches or greater when measured four and a half feet above natural graded (DBH); and (2) three or more palm trees in linear plantings at least 50 feet long within established windrows or parkways plantings.

Prior to the removal of a regulated tree, a tree removal permit must be obtained. According to the tree measures, a tree removal permit must be obtained in conjunction with a land use application or development permit. The applicable review authority may authorize the removal of a regulated tree or plant only if the following findings are made:

- The location of the regulated tree and/or its drip line interferes with an allowed structure, sewage disposal area, paved area, or other approved improvement or ground disturbing activity and there is no other alternative feasible location for the improvement.

- The location of the regulated tree and/or its drip line interferes with the planned improvement of a street or the development of an approved access to the subject or adjoining private property and there is no other alternative feasible location for the improvement.

- The location of the regulated tree is hazardous to pedestrian or vehicular travel or safety.

- The regulated tree or its presence interferes with or is causing extensive damage to utility services or facilities, roadways, sidewalks, curbs, gutters, pavement, sewer line(s), drainage or flood control improvements, foundations, existing structures, or municipal improvements.

- The condition or location of the regulated tree is adjacent to and in such close proximity to an existing or proposed structure that the regulated tree or plant has or will sustain significant damage.

4.3.2 Upper Santa Ana River Habitat Conservation Plan

The Study Area is located within the proposed Upper Santa Ana River Habitat Conservation Plan (Upper SAR HCP). The Upper SAR HCP will provide incidental take permits for impacts to Covered Species identified by the plan to water resource agencies under CESA and FESA for maintenance, improvements, and operation of facilities within the Plan Area. In addition, the plan will specify how species and their habitats within the Plan Area will be protected and managed. The Upper SAR HCP was released for public review in May 2021 and has yet to be approved.

5.0 PROJECT EFFECTS

This section describes potential direct and indirect impacts associated with the development of Project Sites 1 through 4 and Phase 1/2 off-site areas. Direct impacts immediately alter the affected biological resources such that those resources are eliminated temporarily or permanently. Indirect impacts consist of secondary effects of a project, including noise, decreased water quality (e.g., through sedimentation, urban contaminants, or fuel release), fugitive dust, colonization of non-native plant species, animal behavioral changes, and night lighting. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes a longer time to become apparent.

The significance of impacts to biological resources present, or those with potential to occur, was determined based upon the sensitivity of the resource and the extent of the anticipated impacts. For certain highly sensitive resources (e.g., a federally listed species), any impact would be significant. Conversely, other resources that are of low sensitivity (e.g., species with a large, locally stable population in the region but declining elsewhere) could sustain some impact with a less than significant effect.

In addition, potential direct and indirect impacts associated with the development of other areas within the SPA (and SPA off-site areas) are described below. While implemented mitigation measures would be expected to reduce the severity of impacts, the ability of the measures to reduce the impacts to less-than-significant levels cannot be determined at a programmatic level. Site-specific analysis of subsequent development/redevelopment projects in the SPA, outside of Project Sites 1 through 4 and Phase 1/2 off-site areas would be required to determine if mitigation is available to reduce impacts to less-than-significant levels.

Findings from the WVLC Project (MBI 2017; Appendix A) are also summarized below for WVLC off-site areas.

5.1 SENSITIVE SPECIES

5.1.1 Rare Plant Species

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

The 12 rare plant species recorded within the Fontana quadrangle do not have a potential to occur on Project Sites 1 through 4 or Phase 1/2 off-site areas based on geographic range, elevation range, and/or lack of suitable habitat (see Appendix J). Therefore, no impacts would occur, and mitigation is not warranted.

Specific Plan Area

Based on the general biological survey and aerial review, other areas within the SPA (and SPA off-site areas) are not expected to support suitable habitat for the 12 rare plant species (see Appendix J). However, future projects proposed within the SPA should be surveyed to confirm no suitable habitat is present (Measure BIO-1). If suitable habitat is identified, rare plant surveys should be conducted within the suitable habitat to determine the presence of species. The focused surveys should be conducted in accordance with published agency guidelines (CDFW 2009, CDFW 2000, and USFWS 2000) and during the appropriate time of year. If rare plants are identified and cannot be avoided, the project-level biological survey report would justify why species-specific mitigation is necessary and propose mitigation to reduce project impacts to a less than significant level.

WVLC Off-site Areas

The WVLC Habitat Assessment did not identify any suitable habitat for rare plant species within the WVLC off-site areas (MBI 2017; Appendix A). Therefore, no impacts would occur, and mitigation is not warranted.

5.1.2 Sensitive Animal Species

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

Of the 17 sensitive animal species recorded within the vicinity of Project Sites 1 through 4 and Phase 1/2 off-site areas, 12 species were determined to have no potential to occur due to lack of suitable habitat and/or these areas are located outside of the species' known geographical range (Appendix K). Crotch's bumblebee has a low potential to occur within the disturbed California buckwheat scrub observed at the southeastern portion of the Phase 1/2 off-site areas. As previously discussed, Crotch bumblebee is

currently listed on CNDDB as a State Candidate Endangered Species. However, the Sacramento Superior Court recently ruled that insects are not subject to protection under the California Endangered Species Act (Almond Alliance et al. v. California Fish and Game Commission). Therefore, this species is not evaluated any further in this report. The remaining four species are discussed in detail below.

Burrowing Owl: Based on the results of the habitat assessment, Project Sites 1 and 3 and Phase 1/2 off-site areas do not support suitable BUOW (SSC) habitat. Focused surveys for BUOW were conducted in 2018 for Project Site 2 and 2021 for Project Site 4. Survey results were negative, and BUOW is presumed absent from Project Sites 2 and 4. Although suitable habitat was not identified on Project Sites 1 or 3 or Phase 1/2 off-site areas, site conditions may change prior to construction once buildings are no longer occupied. Therefore, pre-construction take avoidance surveys should be conducted on Project Sites 1 through 4 and Phase 1/2 off-site areas prior to ground disturbance in accordance with CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). If BUOW is observed during the take avoidance surveys, avoidance of active nests and/or relocation of BUOW would be required, as outlined in Measure BIO-2.

Delhi Sands Flower-loving Fly: Based on the results of the habitat assessment, Project Sites 1 through 4 and Phase 1/2 off-site areas do not support suitable DSFLF (federally endangered) habitat. Therefore, no impacts would occur, and mitigation is not warranted.

Sensitive Bats: Project Sites 1 through 4 and Phase 1/2 off-site areas support potentially suitable roosting and foraging habitat for pocketed free-tailed bat (SSC) and western yellow bat (SSC). Construction/demolition activities will occur outside the bat maternity roosting season when feasible, which is generally defined as April 1 through August 31 (Measure BIO-3). If construction/demolition must occur during the maternity roosting season, pre-construction surveys will be conducted as outlined in Measure BIO-3. Additional avoidance and minimization measures would be required if maternity roosts are identified, as outlined in Measure BIO-3.

Specific Plan Area

Based on the general biological survey and aerial review, suitable habitat for BUOW, pocketed free-tailed bat, western yellow bat, and San Diego black-tailed jackrabbit may be present within other areas of the SPA (and SPA off-site areas). Habitat assessments should be conducted for future projects proposed within the SPA to confirm suitable habitat. Measures related to BUOW and sensitive bats are outlined in Measures BIO-2 and BIO-3, respectively. Since the majority of the SPA supports existing development, significant impacts to San Diego black-tailed jackrabbit are not expected. In addition, future projects proposed within the SPA will be surveyed for any other sensitive animal species that may be present (Measure BIO-4). If other sensitive animal species are identified and impacts cannot be avoided, the project-level biological survey report would justify why species-specific mitigation is necessary and propose mitigation to reduce project impacts to a less than significant level.

A habitat assessment for DSFLF (federally endangered) was conducted within the entire SPA. The habitat assessment concluded the SPA does not support suitable DSFLF habitat (Appendix E). Therefore, no impacts would occur, and mitigation is not warranted.

WVLC Off-site Areas

The WVLC Habitat Assessment did not identify any suitable habitat within the WVLC off-sites areas for DSFLF, San Diego black-tailed jackrabbit, or sensitive bats (MBI 2017; Appendix A). Additionally, the DSFLF habitat assessment conducted by ELMT confirmed the WVLC off-site areas do not support suitable DSFLF habitat (Appendix E). Although San Diego black-tailed jackrabbit habitat is present in the western portion of the WVLC Project, suitable habitat was not identified within the WVLC off-site areas. Therefore, no impacts would occur, and mitigation is not warranted.

Suitable BUOW habitat is present within the WVLC off-site areas, although BUOW was not observed within these areas during the habitat assessment or focused surveys conducted for the WVLC Project (MBI 2017; Appendix A). Additionally, this area was surveyed during the Project Site 2 focused surveys performed in 2018, which were negative. Since suitable BUOW habitat is present, development within the WVLC off-site areas must comply with Measure WVLC BIO-1, which requires take avoidance surveys to be conducted prior to ground-disturbing activities and avoidance/minimization measures to be implemented if BUOW are observed.

5.2 SENSITIVE VEGETATION COMMUNITIES

5.2.1 California Department of Fish and Wildlife Sensitive Vegetation Communities/Habitats

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

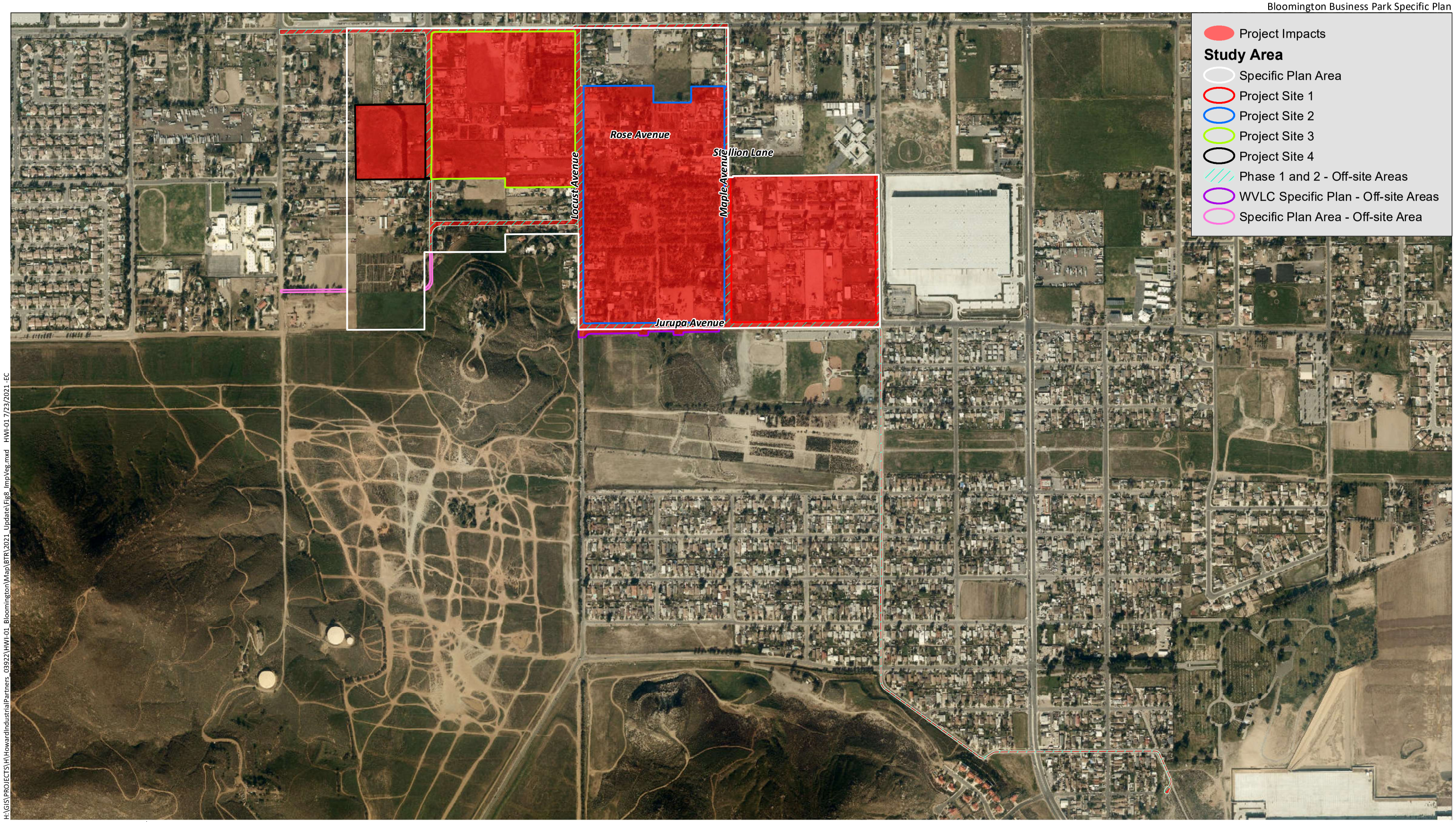
The entire areas of Project Site 1 (37.7 acres), Project 2 (58.5 acres), Project Site 3 (38.9 acres), Project Site 4 (9.4 acres) are proposed for development in addition to the Phase 1/2 off-site areas (19.1 acres; Figure 8, *Impacts to Vegetation and Land Uses*). The majority of these areas consist of existing development. None of the mapped vegetation communities within these areas are considered sensitive pursuant to CDFW (2020). Therefore, no impacts to sensitive vegetation communities would occur, and mitigation is not warranted.

Specific Plan Area

Based on the general biological survey and aerial review, other areas within the SPA (and SPA off-site areas) are not expected to support sensitive vegetation communities pursuant to CDFW (2020). However, future projects proposed within the SPA should be surveyed to confirm no sensitive vegetation is present (Measure BIO-5). If sensitive vegetation is identified, impacts should be avoided where feasible. Where avoidance is not feasible, sensitive vegetation communities will be mitigated through habitat acquisition/preservation, restoration, and/or creation.

WVLC Off-site Areas

Development within the WVLC off-site areas include impacts to 0.4 acre of existing developed areas and 0.8 acre of upland mustard fields. None of the mapped vegetation communities described are considered sensitive pursuant to CDFW (2020). Therefore, no impacts to sensitive vegetation communities would occur, and mitigation is not warranted.



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0 800 Feet

Source: Aerial (MAXAR, 2020)

HELIX Environmental Planning

Impact to Vegetation and Land Use

Figure 8

5.2.2 California Department of Fish and Wildlife Riparian Habitat and Streambed

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

Project Sites 1 through 4 and Phase 1/2 off-site areas do not support jurisdictional resources pursuant to Section 1602 of the CFG Code as regulated by CDFW (see Appendix I for jurisdictional delineation report). Therefore, no impacts to CDFW jurisdiction would occur, and mitigation is not warranted.

Specific Plan Area

Based on the general biological survey and aerial review, other areas within the SPA (and SPA off-site areas) are not expected to support jurisdictional resources pursuant to Section 1602 of the CFG Code as regulated by CDFW. However, future projects proposed within the SPA should be surveyed to confirm there are no resources under CDFW jurisdiction (Measure BIO-6). If resources under CDFW jurisdiction are identified, impacts should be avoided where feasible. Where avoidance is not feasible, project-specific impacts to jurisdictional resources will be applied by federal and state regulators via applicable consulting and permitting processes. The types of mitigation required may include on-site or off-site preservation, enhancement, creation, and/or restoration.

WVLC Off-site Areas

A jurisdictional delineation was conducted within WVLC off-site areas as part of the WVLC Project (MBI 2017; Appendix L). Jurisdictional resources pursuant to Section 1602 of the CFG Code, as regulated by CDFW, are not located within the WVLC off-site areas. A small ephemeral drainage feature was documented directly to the south of the WVLC off-site areas (Drainage B). However, the drainage feature is located entirely outside of the WVLC off-site area, and the project would not impact any jurisdictional resources. Therefore, no impacts to CDFW jurisdiction would occur, and mitigation is not warranted.

5.3 U.S. ARMY CORPS OF ENGINEERS/REGIONAL WATER QUALITY CONTROL BOARD JURISDICTION

Project Sites 1 through 4 and Off-site Areas

Project Sites 1 through 4 and Phase 1/2 off-site areas do not support jurisdictional resources pursuant to Sections 404/401 of the CWA as regulated by USACE and RWQCB, respectively (see Appendix I for jurisdictional delineation report). RWQCB jurisdiction under the State Porter-Cologne Water Quality Control Act was not identified. Therefore, no impacts to USACE or RWQCB jurisdiction would occur, and mitigation is not warranted.

Specific Plan Area

Based on the general biological survey and aerial review, other areas within the SPA (and SPA off-site areas) are not expected to support jurisdictional resources pursuant to Sections 404/401 of the CWA as regulated by USACE and RWQCB, respectively. The SPA is also not expected to support RWQCB jurisdictional resources that would be subject to the Waste Discharge Requirements under the State Porter-Cologne Water Quality Control Act. However, future projects proposed within the SPA should be

surveyed to confirm there are no resources under USACE or RWQCB jurisdiction (Measure BIO-6). If resources under USACE and/or RWQCB jurisdiction are identified, impacts should be avoided where feasible. Where avoidance is not feasible, project-specific impacts to jurisdictional resources will be applied by federal and state regulators via applicable consulting and permitting processes. The types of mitigation required may include on-site or off-site preservation, enhancement, creation, and/or restoration.

WVLC Off-site Areas

A jurisdictional delineation was conducted within the WVLC off-site areas as part of the WVLC Project (MBI 2017; Appendix L). Jurisdictional resources pursuant to Sections 404/401 of the CWA as regulated by USACE and RWQCB, respectively, are not located within the WVLC off-site areas. A small ephemeral drainage feature was documented directly to the south of the WVLC off-site areas (Drainage B). However, the drainage feature is located entirely outside of the WVLC off-site area, and the project would not impact any jurisdictional resources. Therefore, no impacts to USACE or RWQCB jurisdiction would occur, and mitigation is not warranted.

5.4 WILDLIFE MOVEMENT AND MIGRATORY SPECIES

5.4.1 Wildlife Movement

Study Area

The Study Area is not part of a regional corridor and does not serve as a nursery site. The Study Area does not directly connect to two or more large blocks of habitat and is constrained by existing development. The Study Area is not identified as being part of a local or regional corridor or linkage by the South Coast Missing Linkages (South Coast Wildlands 2008). Although the Study Area does not support any native plant communities, limited non-native and ornamental vegetation may be used by smaller mammals and reptiles that are adapted to human disturbance to move locally through the area. Bird species may fly over existing development and agricultural areas to access the Study Area for foraging. Although development may result in some disturbance to local wildlife movement, development within the Study Area would have a less than significant impact to wildlife movement, and no mitigation measures would be required.

WVLC Off-site Areas

The WVLC Habitat Assessment did not identify any wildlife corridors within the WVLC off-site area, although the creation of an avian corridor is proposed in the southern portion of the WVLC Project to maintain and improve avian movement between Jurupa Hills to the west and Rattlesnake Mountain to the east. Construction activities proposed within the WVLC off-site areas would not interfere with the WVLC avian corridor. Therefore, development in the WVLC off-site areas would have a less than significant impact to wildlife movement, and no mitigation measures would be required.

5.4.2 Migratory Species

Study Area

The Study Area has the potential to support songbird and raptor nests due to the presence of shrubs, ground cover, and trees. Project activities could disturb or destroy active migratory bird nests, including eggs and young. Disturbance to or destruction of migratory bird eggs, young, or adults is in violation of the MBTA and is considered a potentially significant impact. The nesting season is generally defined as March 15 through August 31 for songbirds and January 1 through August 31 for raptors. An avoidance and minimization measure is provided as BIO-7 in Section 6.0 below, which would ensure development within the Study Area complies with MBTA regulations.

WVLC Off-site Areas

As documented in the WVLC Habitat Assessment, the WVLC off-site areas support suitable habitat for nesting birds. Development within these areas must comply with Measure WVLC BIO-1 to avoid project impacts to nesting birds.

5.5 LOCAL POLICIES AND ORDINANCES

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

No regulated trees as defined by the County's tree measures were observed in Projects Sites 1 through 4. Phase 1/2 Off-site Areas are located entirely within existing paved areas, with the exception of a small area to the south of 5th Street. Therefore, the development of Project Sites 1 through 4 and the Phase 1/2 off-site areas would not conflict with the County's tree measures, and no mitigation is warranted.

Specific Plan Area

Other areas within the SPA (and SPA off-site areas) may support regulated trees as defined by the County's tree measures. Development within these areas will follow Measure BIO-8 to help ensure future development complies with the County's tree measures, which requires a tree survey by an ISA-certified arborist. If regulated trees are identified during the survey, a tree removal permit would be required prior to impacts.

WVLC Off-site Areas

WVLC off-site areas are located within the City of Fontana (City). Therefore, development within these areas are subject to Section 28-65 of the City's Tree Preservation Ordinance (ordinance). Development within the WVLC off-site areas must comply with Measure WVLC BIO-8. A permit for tree replacement is not required for trees that are determined to be hindering roadway improvements in public rights-of-way. Since trees located within the WVLC off-site areas are within public rights-of-way and project activities at this location include roadway improvements, the project activities would not be subject to the City's ordinance requirements.

5.6 ADOPTED HABITAT CONSERVATION PLANS

Project Sites 1 through 4 and Phase 1/2 Off-site Areas

Project Sites 1 through 4 and Phase 1/2 off-site areas are not located within any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. These areas are located within the proposed Upper SAR HCP, which was released for public review in May 2021 and has not been approved. Therefore, development within Project Sites 1 through 4 and Phase 1/2 off-site areas is not in conflict with any adopted habitat conservation plans.

Specific Plan Area

Should the Upper SAR HCP be approved, future development within the SPA would be required to comply with the plan implemented at the time of their entitlement, pursuant to Countywide Plan Policy NR-5.7. The project would comply with state and federal regulations regarding protected species of animals and vegetation through the development review, entitlement, and environmental clearance processes. Implementation of Policy NR-5.7 would include compliance with Habitat Conservation Plans and/or Natural Community Conservation Plan. Therefore, impacts would be less than significant.

WVLC Off-site Areas

The WVLC off-site areas are not located within any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The WVLC off-site areas are located within the proposed Upper SAR HCP, which was released for public review in May 2021 and has not been approved. Therefore, development within the WVLC off-site areas is not in conflict with any adopted habitat conservation plans.

6.0 MITIGATION MEASURES

6.1 STUDY AREA

The following provides recommended measures intended to minimize or avoid impacts to biological resources within Project Sites 1 through 4 and Phase 1/2 off-site areas. While implemented mitigation measures would be expected to reduce the severity of impacts related to future development within the SPA (and SPA off-site area), the ability of the measures to reduce the impacts to less-than-significant levels cannot be determined at a programmatic level. Site-specific analysis of subsequent development/ redevelopment projects in the SPA would be required to determine if mitigation is available to reduce impacts to less-than-significant levels.

BIO-1 **Rare Plants:** Future projects proposed within the SPA (excluding Project Sites 1 through 4 and Phase 1/2 off-site areas) shall be surveyed to determine if any rare plant species have the potential to occur. If suitable habitat is present, a qualified biologist shall survey for sensitive plants during the appropriate time of year (i.e., when the species is readily identifiable, such as during its blooming period) prior to initiating construction activities in a given area. The focused surveys shall be conducted in accordance with published agency guidelines (CDFW 2009, CDFW 2000, USFWS 2000). If rare plants are identified and cannot be avoided, the project-level biological survey report would justify

why species-specific mitigation is necessary and propose mitigation to reduce project impacts to a less than significant level.

BIO-2 **Burrowing Owl**: Prior to commencement of construction activities (i.e., demolition, earthwork, clearing, and grubbing), habitat assessments to determine whether suitable burrows are present as defined by the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) shall be conducted within future projects proposed within the SPA (excluding Project Sites 1 through 4 and Phase 1/2 off-site areas). The assessment shall also include a 500-foot (150-meter) buffer around proposed development footprints. If suitable burrows are identified, focused surveys shall be conducted by a qualified biologist during the breeding season in accordance with the most recent CDFW guidelines.

Take avoidance surveys shall be conducted within all areas of the SPA (including Project Sites 1 through 4 and Phase 1/2 off-site areas). The take avoidance surveys shall be conducted within 14 days and repeated 24 hours prior to construction activities (i.e., demolition, earthwork, clearing, and grubbing) to determine presence of BUOW. If take avoidance surveys are negative and BUOW is confirmed absent, then ground-disturbing activities shall be allowed to commence, and no further mitigation would be required.

If BUOW is observed during focused surveys and/or take avoidance surveys within any portion of the Study Area (including Project Sites 1 through 4 and Phase 1/2 off-site areas), active burrows shall be avoided by the project in accordance with the CDFW's Staff Report (CDFG 2012). CDFW shall be immediately informed of any BUOW observations. A BUOW Protection and Relocation Plan (plan) shall be prepared by a qualified biologist, which must be sent for approval by CDFW prior to initiating ground disturbance. The plan shall detail avoidance measures that shall be implemented during construction and passive or active relocation methodology. Relocation shall only occur outside of the nesting season (September 1 through January 31).

BIO-3 **Sensitive Bat Species**. Prior to commencement of construction activities, habitat assessments for sensitive bat species shall be conducted for all future projects proposed within the SPA (excluding Project Sites 1 through 4 and Phase 1/2 off-site areas). The following avoidance and minimization measures shall be implemented within all areas of the Study Area that support suitable habitat for sensitive bat species. These measures shall also be implemented for Projects 1 through 4 and Phase 1/2 off-site areas since suitable habitat was identified.

1. Construction activities (i.e., earthwork, clearing, grubbing, etc.) shall occur from September 1 through March 31 and outside the bat maternity roosting season to the extent possible.

2. If construction activities are proposed within the bat maternity roosting season (April 1 through August 31), a qualified biologist experienced with bats shall conduct a pre-construction survey within all suitable habitat. The pre-construction survey shall be conducted 30 days prior to commencing construction/demolition activities and shall consist of two separate surveys conducted no more than a week apart. The second and final survey should be conducted no more than seven days prior to commencing construction/demolition activities. The pre-construction surveys

should be conducted using a detector for echolocation calls, such as an Anabat bat detector system. The results of the pre-construction survey shall be documented by the qualified biologist.

If the qualified biologist determines that no sensitive bat maternity roosts are present, the construction activities shall be allowed to proceed without any further requirements. If the qualified biologist determines that sensitive bat maternity roosts are present, the following avoidance and minimization measures shall be implemented:

a. No construction activities may occur within 300 feet of any sensitive bat maternity roosts. A qualified biologist shall clearly delineate any bat maternity roosts and any required avoidance buffers, which shall be clearly marked with flags and/or fencing prior to the initiation of construction activities.

b. If construction activities are proposed within 300 feet of a sensitive bat maternity roost, a biological monitor shall be required to observe the behavior of any roosting bats. The construction supervisor shall be notified if the construction activities appear to be altering the bats' normal roosting behavior. No construction activities will be allowed within 300 feet of bat maternity roosts until the additional minimization measures are taken, as determined by the biological monitor in coordination with CDFW. The biological monitor shall prepare written documentation of all monitoring activities and any additional minimization measures that were taken, which shall be submitted to CDFW at the completion of construction activities.

BIO-4 **Sensitive Animals:** Future projects proposed within the SPA (excluding Project Sites 1 through 4 and Phase 1/2 off-site areas) shall be surveyed for any other sensitive animal species that may be present. The project-level biological survey report would justify why species specific mitigation is necessary and propose mitigation to reduce project impacts to a less than significant level.

BIO-5 **Sensitive Vegetation Communities**: Future projects proposed within the SPA (excluding Project Sites 1 through 4 and Phase 1/2 off-site areas) shall be surveyed for sensitive vegetation communities as defined by CDFW. Impacts to sensitive vegetation communities shall first be avoided. Where avoidance is not feasible, sensitive vegetation communities shall be mitigated through habitat acquisition/preservation, restoration, and/or creation.

BIO-6 **Jurisdictional Resources**: A jurisdictional assessment shall be conducted for future projects proposed within the SPA (excluding Project Sites 1 through 4 and Phase 1/2 off-site areas). Jurisdictional resources shall be avoided when feasible. Where avoidance is not feasible, project-specific impacts to jurisdictional resources will be applied by federal and state regulators via applicable consulting and permitting processes. The types of mitigation required may include on-site or off-site preservation, enhancement, creation, and/or restoration. Mitigation is typically required at a 1:1 ratio or higher and to be accomplished in close proximity to the impacts, or at least in the same watershed.

Final requirements and locations are, however, subject to change during applicable consultation/permit processes required by the USACE, RWQCB, and CDFW.

Best Management Practices (BMPs) to minimize and avoid impacts to jurisdictional resources during and after construction may include, but are not limited to, the following:

- Construction-related equipment will be stored in developed areas, outside of the drainage. No equipment maintenance will be done within or adjacent to the drainage.
- Source control and treatment control BMPs will be implemented to minimize the potential contaminants that are generated during and after construction. Water quality BMPs will be implemented throughout the project to capture and treat potential contaminants.
- Substances harmful to aquatic life will not be discharged into the drainage. All hazardous substances will be properly handled and stored.
- A Storm Water Pollution Prevention Plan will be prepared to prevent sediment from entering the drainage during construction.
- To avoid attracting predators during construction, the project will be kept clean of debris to the extent possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site.
- Construction personnel will strictly limit their activities, vehicles, equipment, and construction material to the proposed project footprint, staging areas, and designated routes of travel.
- Exclusion fencing will be installed to demarcate the limits of disturbance. The exclusion fencing should be maintained until the completion of construction activities.

BIO-7 **Nesting Birds:** To the extent possible, construction activities (i.e., demolition, earthwork, clearing, and grubbing) within the Study Area, including Project Sites 1 through 4 and Phase 1/2 off-site areas, shall occur outside of the general bird nesting season for migratory birds, which is March 15 through August 31 for songbirds and January 1 through August 31 for raptors.

If construction activities (i.e., earthwork, clearing, and grubbing) must occur during the general bird nesting season for migratory songbirds (March 15 through August 31) and raptors (January 1 to August 31), a qualified biologist shall perform a pre-construction survey of potential nesting habitat to confirm the absence of active nests belonging to migratory birds and raptors afforded protection under the MBTA and CFG Code. The pre-construction survey shall be performed no more than three days prior to the commencement of construction activities. The results of the pre-construction survey shall be documented by the qualified biologist. If construction is inactive for more than seven days, an additional survey shall be conducted.

If the qualified biologist determines that no active migratory bird or raptor nests occur, the activities shall be allowed to proceed without any further requirements. If the qualified biologist determines that an active migratory bird or raptor nest is present, no impacts within 300 feet (500 feet for raptors) of the active nest shall occur until the young have fledged the nest and the nest is confirmed to no longer be active, or as determined by the qualified biologist. The biological monitor may modify the buffer or propose other recommendations in order to minimize disturbance to nesting birds.

BIO-8 **County Regulated Trees:** A tree survey shall be conducted for future projects proposed within the SPA (excluding Project Sites 1 through 4 and Phase 1/2 off-site areas). The survey shall be conducted by an ISA-certified arborist to identify trees regulated under Section 88.01.070 of the County's Code of Ordinances. If regulated trees will be impacted by a project, a tree removal permit must be obtained prior to impacts.

6.2 WVLC OFF-SITE AREAS

Applicable measures from the WVLC Mitigation Monitoring and Reporting Program are provided below (ICF 2018), which include WVLC BIO-1 (only surveys related to BUOW and nesting birds are applicable; measures related to San Diego black-tailed jackrabbit and special-status plant species are not applicable). These measures are intended to minimize or avoid impacts to biological resources within WVLC off-site areas.

WVLC BIO-1: Pre-Construction Focused Surveys of Proposed Conservation Area and Development Area to Confirm Absence of Special-Status Species.

Pre-construction Survey within the Proposed Development Area for Western Burrowing Owl. The project applicant shall retain a qualified biologist to conduct pre-construction surveys for burrowing owls no fewer than 14 days prior to any ground-disturbing activities, to be repeated 24 hours prior to grading. The pre-construction surveys shall be approved by the City of Fontana Director of Community Development and conducted in accordance with current survey protocols provided in the CDFW Staff Report on Burrowing Owl Mitigation (March 7, 2012). In the event a burrowing owl is found to be present on-site during the pre-construction survey, the project applicant shall ensure that the applicable avoidance measures outlined in the CDFW Staff Report on Burrowing Owl Mitigation (March 7, 2012) are applied to the proposed project (e.g., avoid direct impacts on occupied burrows during nesting season). Any active avoidance measures during the breeding season must be coordinated with CDFW.

Pre-construction Nesting Bird Survey of the Proposed Development Area. Nesting birds are protected pursuant to the MBTA and California Fish and Game Code. If ground-disturbing activities or removal of any trees, shrubs, or any other potential nesting habitat are scheduled within the avian nesting season (January 1 to August 31), a pre-construction clearance survey for nesting birds shall be completed no more than three days prior to ground disturbance. This will ensure that no nesting birds adjacent to the construction area will be disturbed during construction. If nesting birds are found, an avoidance buffer no less than 300 feet shall be established around the nest until all young have fledged and the nest is confirmed to be no longer active by a qualified biologist.

7.0 CERTIFICATION/QUALIFICATION

The following individuals contributed to the fieldwork and/or preparation of this report:

Ezekiel Cooley	B.S., Natural Resources with an emphasis in Wildlife, Central Michigan University, 2004
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Appendix A

West Valley Logistics Center Habitat Assessment Report

WEST VALLEY LOGISTICS CENTER

CITY OF FONTANA, SAN BERNARDINO COUNTY, CALIFORNIA

Habitat Assessment

Prepared For:

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February 2017

Revised October 2017

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WEST VALLEY LOGISTICS CENTER

CITY OF FONTANA, SAN BERNARDINO COUNTY, CALIFORNIA

Habitat Assessment

The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.

Ashley M. Barton
Biologist
Natural Resources

Thomas J. McGill, Ph.D.
Vice President
Natural Resources

February 2017

Revised October 2017

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Executive Summary

This report contains the findings of Michael Baker International's (Michael Baker) updated habitat assessment for the West Valley Logistics Center (project or project site) located in the City of Fontana, San Bernardino County, California. Michael Baker biologists Thomas J. McGill, Ph.D. and Travis J. McGill, and regulatory specialist Christopher A. Johnson conducted an initial habitat assessment on February 14 and February 26, 2013. The updated field assessment was conducted by Michael Baker biologist Ashley M. Barton and Travis J. McGill on February 3, 2017.

The proposed project site consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances (e.g., agricultural activities, off-road vehicle use, and weed abatement activities). As a result, the majority of the natural plant communities that once occurred on the project site have been heavily disturbed, reducing the suitability of the on-site habitat to support special-status plant and wildlife species. Three plant communities occur within the boundaries of the project site: Riversidian sage scrub (RSS) and disturbed RSS, mulefat scrub, and non-native grassland. The project site also contains land cover types that would be classified as Peruvian pepper stand, Eucalyptus stand, olive tree row, disturbed, and developed.

No special-status plant species were observed on-site during the habitat assessment. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the project has a low potential for Plummer's mariposa-lily (*Calochortus plummerae*), Parry's spineflower (*Chorizanthe parryi var. parryi*), and paniculate tarplant (*Deinandra paniculata*). All other special-status plant species are not expected to occur and are presumed to be absent from the project site. Sensitive plant surveys are not recommended since the project site has been subject to a regime of heavy disturbance for several decades.

Cooper's hawk (*Accipiter cooperii*) and burrowing owl (*Athene cunicularia*) were the only special-status wildlife species observed on-site during the habitat assessment. In addition, southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), olive-sided flycatcher (*Contopus cooperi*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) were observed on-site during the 2014 focused California gnatcatcher focused survey. Based on habitat requirements for specific special-status wildlife species and the availability and quality of habitats needed by each species, it was determined that the project site has a high potential to support great blue heron (*Ardea herodias*), a moderate potential to support coastal California gnatcatcher, and has a low potential to support California glossy snake (*Arizona elegans occidentalis*), Bell's sage sparrow (*Artemisiospiza belli belli*), orange-throated whiptail (*Aspidoscelis hyperythra*), Costa's hummingbird (*Calypte costae*), northern harrier (*Circus cyaneus*), San Diego banded gecko (*Coleonyx variegatus abbotti*), red-diamond rattlesnake (*Crotalus ruber*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), loggerhead shrike (*Lanius ludovicianus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), and coast horned lizard (*Phrynosoma blainvillii*). All remaining special-status wildlife

species are presumed to be absent from the project site based on habitat requirements, availability and quality of habitat needed by each species, and known distributions.

This report provides an assessment of the suitability of the on-site habitat to support coastal California gnatcatcher (*Polioptila californica californica*), Delhi sands flower-loving fly (*Rhaphiomidas terminates abdominalis*), burrowing owl (*Athene cunicularia*), and San Diego black-tailed jackrabbit:

- No California gnatcatcher were observed or heard during the 2013 and 2017 habitat assessments. Although coastal California gnatcatcher has been observed on and adjacent to the project site during previous surveys, no coastal California gnatcatcher were detected during focused breeding season surveys conducted on-site during 2014 breeding season surveys. The RSS plant community found on the western boundary of the project site will be conserved on-site and no impacts will occur to this plant community from site development. As a result, no further focused surveys are recommended. Prior to development of the proposed project, a nesting bird clearance survey shall be conducted to ensure California gnatcatcher remain absent from the project site. If California gnatcatcher are observed during the pre-construction clearance survey within the RSS habitat that not be impacted, stringent avoidance and minimization measures will be developed to ensure no indirect impacts to California gnatcatcher will occur.

- Two consecutive years of negative surveys are required to demonstrate absence of Delhi Sands flower-loving fly according to protocol. Consecutive negative surveys were most recently conducted in 2011 and 2012. In addition, a total of six consecutive years of negative focused surveys were conducted between 2003 and 2009. No focused surveys were conducted in 2010. The most recent focused survey was conducted in 2015 and no Delhi Sands flower-loving fly were observed. Based on-site conditions and previous negative focused surveys, it was determined that Delhi Sands flower-loving fly is presumed absent from the project site. However, further discussion with USFWS are recommended to support this conclusion.

- The project site provides open foraging habitat and line-of-site opportunities for burrowing owls. Further the project site provides fossorial mammal burrows (> 4 inches in diameter) with the potential to provide suitable nesting opportunities for burrowing owl. One burrowing owl was observed on-site approximately 0.15 miles west of Locust Avenue during the 2017 updated habitat assessment. Burrowing owls were not observed on-site during previous survey efforts. Since the updated habitat assessment was conducted at the beginning of the avian breeding season, at the end of winter, it is possible that the burrowing owl observed on-site is not a resident. Instead, it is likely the migratory bird that will leave the site prior to the peak breeding season. In order to comply with CDFWs 2012 Staff Report on Burrowing Owl Mitigation, a focused survey for burrowing owl will need to be conducted during the breeding season prior to site development. The project applicant shall also retain a qualified biologist to conduct

preconstruction surveys for burrowing owls no fewer than 14 days prior to any ground-disturbing activities, to be repeated 24 hours prior to grading. The preconstruction surveys shall be approved by the City of Fontana Director of Community Development and conducted in accordance with current survey protocols provided in the CDFW Staff Report on Burrowing Owl Mitigation (March 7, 2012). In the event a burrowing owl is found to be present on site during the preconstruction survey, the project applicant shall ensure that the applicable avoidance measures outlined in the CDFW Staff Report on Burrowing Owl Mitigation (March 7, 2012) are applied to the proposed project (e.g., avoid direct impacts to occupied burrows during nesting season). Any active avoidance measures during the breeding season must to be coordinated with CDFW.

- The black-tailed jackrabbit was not observed on-site during the 2017 habitat assessment. However, the black-tailed jackrabbit was observed in 2014 within the RSS habitat along the western portion of the site that is connected with a larger block of RSS habitat to the west of the project site that extends across the Jurupa Mountains as part of a large continuous block of RSS habitat. This jackrabbit was not observed foraging in the areas that comprise the development footprint for this project, specifically the areas that are heavily disturbed and no longer support native vegetation. Since the RSS habitat will not be developed and will remain available, impacts to the black-tailed jackrabbit will be less than significant.

Per the results of the 2014 delineation prepared under a separate cover by Michael Baker (formally RBF Consulting), the project site contains a total of 0.27-acre (2,564 linear feet) of surface waters of the State of which a total of 0.05-acre constitutes wetlands. Placement of fill and/or alteration within these waters is subject to Regional Water Quality Control Board (Regional Board) and California Department of Fish and Wildlife (CDFW) jurisdiction and approval; therefore, associated impacts must be avoided, minimized, and fully mitigated pursuant to the California Water Code §§ 13000 et.seq and Fish and Game Code. The project applicant has either obtained or must obtain the following regulatory approvals if construction activities are proposed within the identified jurisdictional areas: U.S. Army Corps of Engineers (Corps) Clean Water Act (CWA) Approved Jurisdictional Determination documenting isolated conditions and lack of jurisdictional authority (obtained); Regional Board Report of Waste Discharge (ROWD) pursuant to California Water Code Section 13260; and, CDFW Section 1602 Streambed Alteration Agreement.

The project site is located within federally designated Critical Habitat for coastal California gnatcatcher. However, the project does not occur on federal lands, and is not receiving any federal funding or oversite. Further, the jurisdictional features on the project site were determined to be isolated waters of the State that do not qualify as jurisdictional waters of the United States under the regulatory authority of the Corps. Therefore, a CWA Section 404 permit will not be issued by the Corps for impacts to the on-site drainage features. As a result, the proposed project does not have a federal nexus and consultation with the USFWS for loss or adverse modification to California gnatcatcher Critical Habitat will not be required.

Pursuant to the Migratory Bird Treaty Act and California Fish and Game Code, future construction activities and/or the removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season. The nesting season generally extends from February 1 through August 31, beginning as early as January 1 for raptor species, but can vary slightly from year to year based upon seasonal weather conditions. If construction or vegetation clearing activities occur during the avian nesting season a pre-construction nesting bird clearance survey will be required and should specifically focus on the presence/absence of burrowing owl.

Table of Contents

EXHIBITS

APPENDIX

LIST OF ACRONYMS

CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
° F	Fahrenheit
GIS	Geographic Information System
MBTA	Migratory Bird Treaty Act
Michael Baker	Michael Baker International
NRCS	Natural Resources Conservation Service
PCE	Primary Constituent Element
RBF	RBF Consulting
Regional Board	Regional Water Quality Control Board
ROW	Right-of-Way
SCE	Southern California Edison
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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Section 1 Introduction

This report contains the findings of Michael Baker International's (Michael Baker) updated Habitat Assessment for the West Valley Logistics Center located in the City of Fontana, San Bernardino County, California. Michael Baker biologists Thomas J. McGill, Ph.D. and Travis J. McGill, and regulatory specialist Christopher A. Johnson conducted an initial habitat assessment on February 14 and February 26, 2013. In addition, a follow-up field assessment was conducted by Michael Baker Biologists Ashley M. Barton and Travis J. McGill on February 3, 2017.

The habitat assessment was conducted to characterize/verify current site conditions and to assess the probability of occurrence of special-status[1] plant and wildlife species that could pose a constraint to project implementation. This report provides an assessment of the suitability of the on-site habitat to support coastal California gnatcatcher (*Polioptila californica californica*), Delhi sands flower-loving fly (*Rhaphiomidas terminates abdominalis*), burrowing owl (*Athene cunicularia*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), as well as several other special-status plant and wildlife species identified by the California Natural Diversity Data Base (CNDDB) and other electronic databases as potentially occurring in the vicinity of the project site.

1.1 PROJECT LOCATION

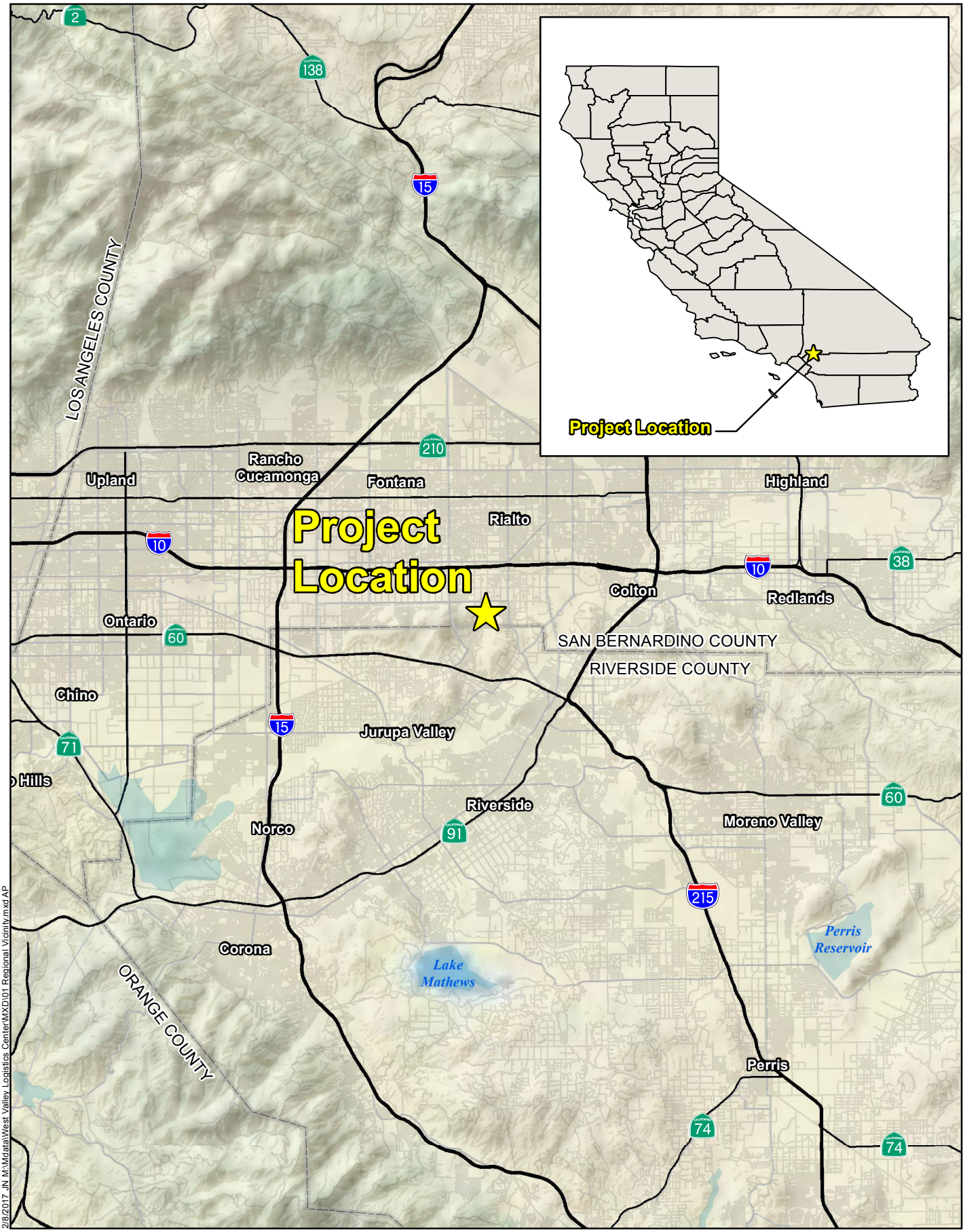
The project site is generally located north of State Route 60, south of Interstate 10, west of Interstate 215, and east of Interstate 15 on the eastern foothills of the Jurupa Mountains in the City of Fontana, San Bernardino County, California (refer to Exhibit 1, *Regional Vicinity*). The project site is depicted on the Fontana United States Geological Survey (USGS) 7.5-minute quadrangle within Section 33, Township 1 south, Range 5 west (refer to Exhibit 2, *Site Vicinity*). Specifically, proposed parcels 1 thru 6 are located west of Locust Avenue, east of Alder Avenue, north and south of Armstrong Road, south of Jurupa Avenue, and north of the Riverside County boundary. Proposed parcel 7 is located on the southeast corner of the intersection of Jurupa Avenue and Locust Avenue, north of the Southern California Edison (SCE) corridor (refer to Exhibit 3, *Project Site*).

1.2 PROJECT DESCRIPTION

Seven (7) light industrial buildings are proposed to be developed on the West Valley Logistics Center project site by UST – CB Partners, LP C/O Estein USA. There are a total of nine (9) parcels and one lettered lot within the entire West Valley Logistics Center project boundaries, of which eight (8) are existing legal parcels (refer to Exhibit 4, *Depiction of Proposed Project*). The seven light industrial

[1] As used in this report, "special-status" refers to plant and wildlife species that are federally or State listed, proposed, or candidates; plant species that have been designated a California Native Plant Society (CNPS) Rare Plant Rank; and wildlife species that are designated by the California Department of Fish and Wildlife (CDFW) as fully protected, species of special concern, or watch list species.

buildings will total 214.89-acres on the 289.09-acres project site. The proposed project will include road improvements and widening of Locust Avenue which will include upgrading Locust Avenue from a two-lane road to four-lane road. Further the proposed project will also include the installation of a water pipeline located within the western portion of the project site.



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Michael Baker INTERNATIONAL

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Source: ESRI Relief Map, National Highway Planning Network

WEST VALLEY LOGISTICS CENTER
HABITAT ASSESSMENT

Regional Vicinity

Exhibit 1

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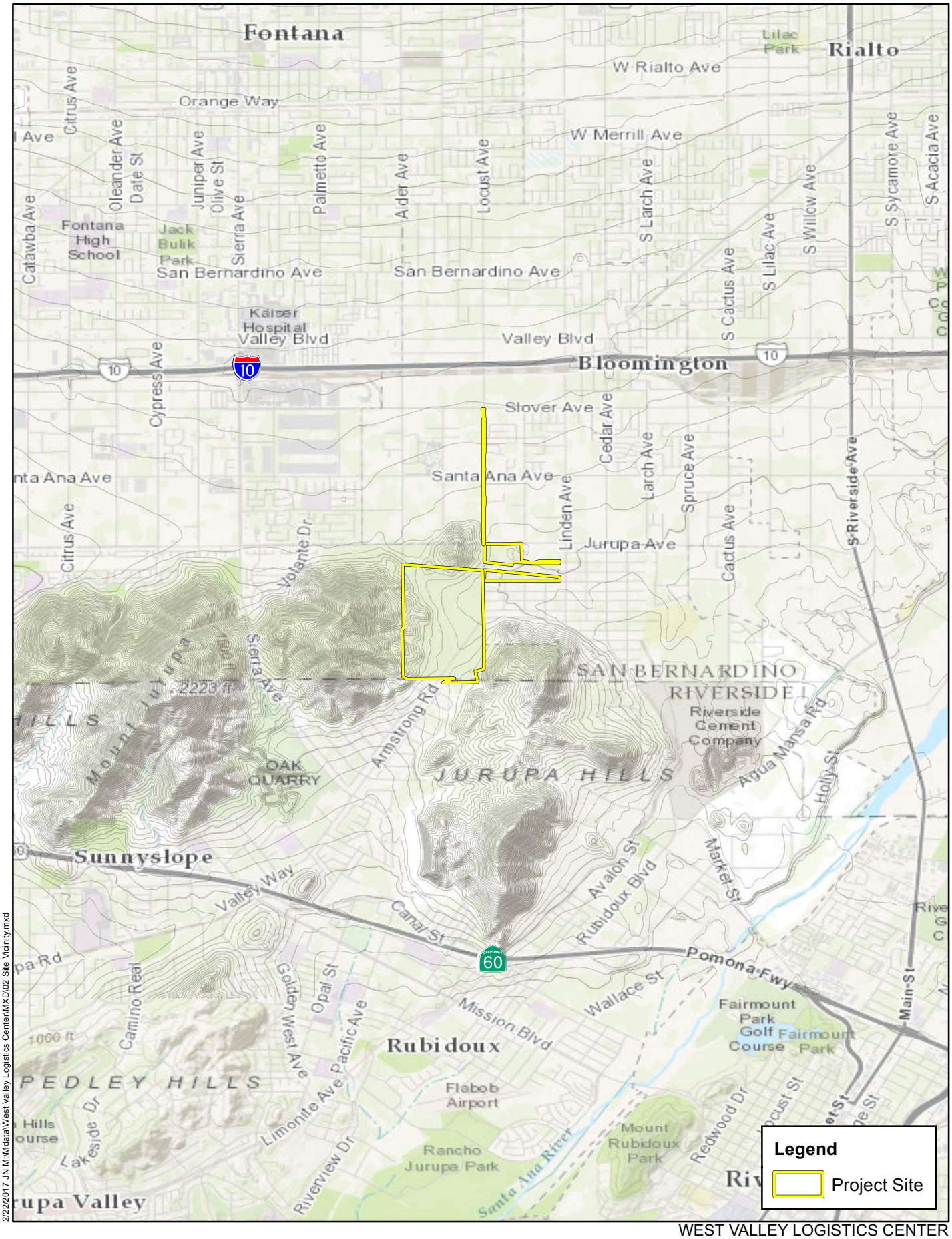

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Michael Baker INTERNATIONAL

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Source: San Bernardino County, ESRI USA Topographic Basemap

WEST VALLEY LOGISTICS CENTER
HABITAT ASSESSMENT

Site Vicinity

Exhibit 2

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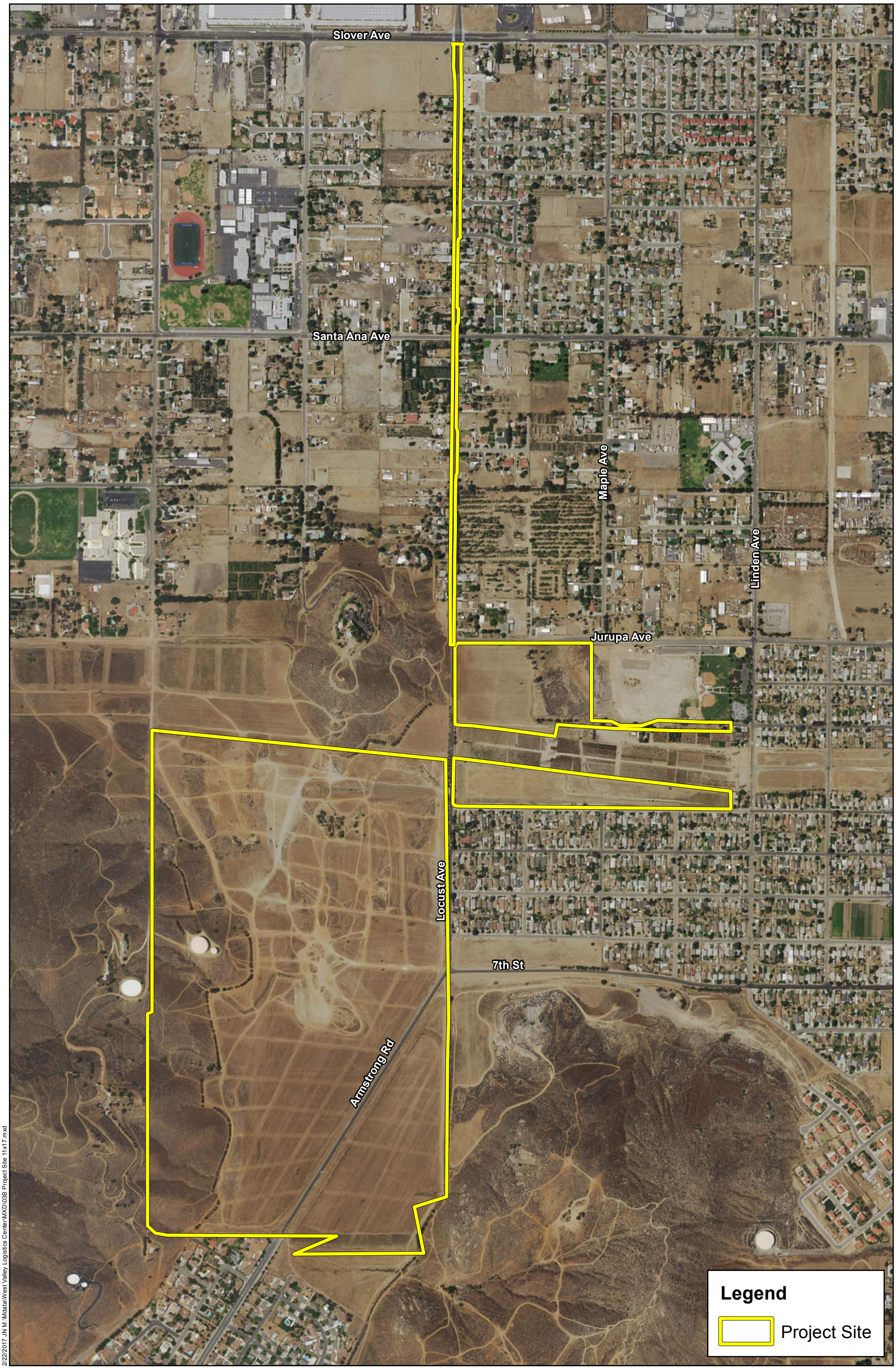

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Michael Baker INTERNATIONAL

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Source: ESRI Imagery

WEST VALLEY LOGISTICS CENTER
HABITAT ASSESSMENT

Project Site

Exhibit 3

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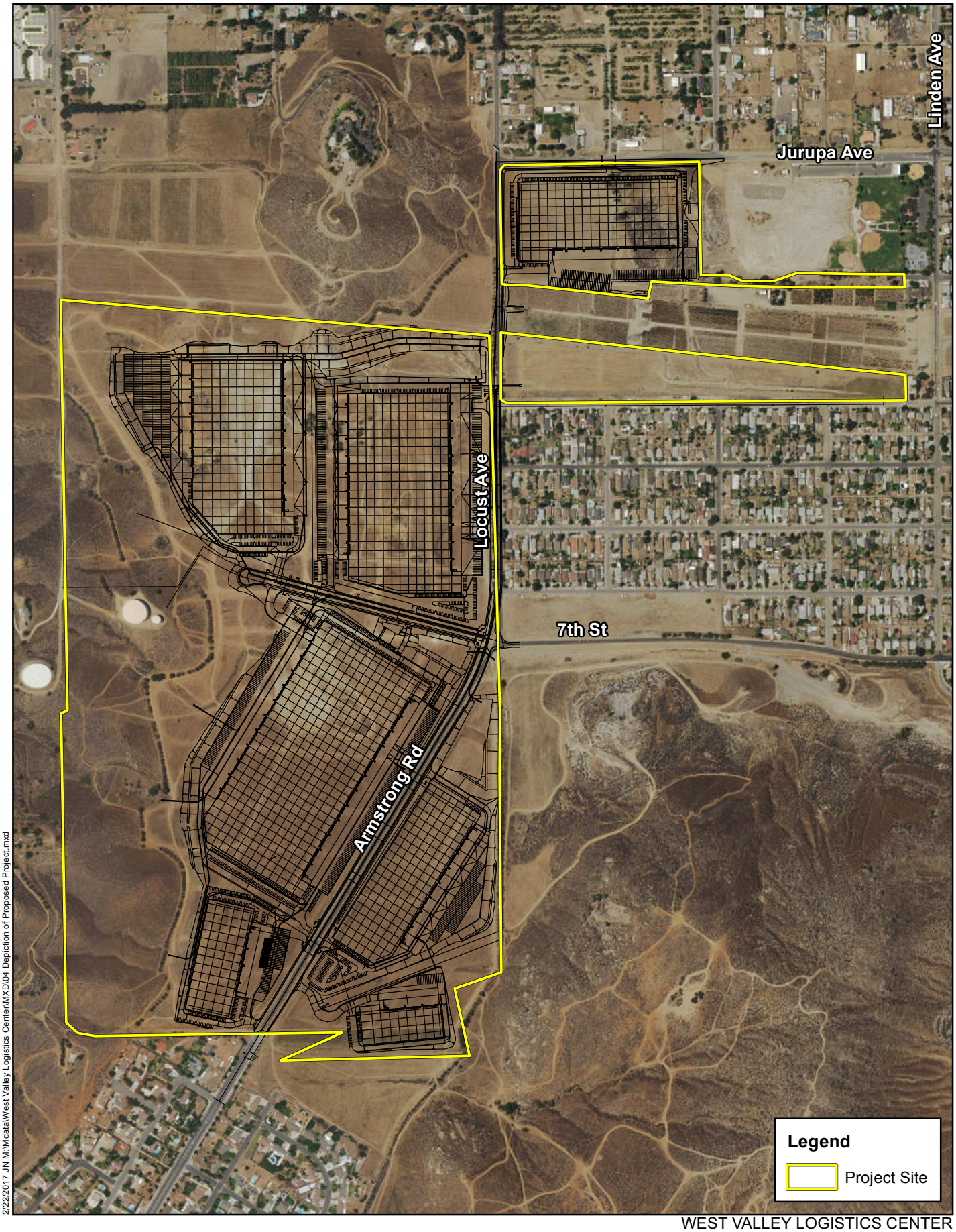

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Source: Esri Imagery

WEST VALLEY LOGISTICS CENTER
HABITAT ASSESSMENT

Depiction of Proposed Project

Exhibit 4

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Section 2 Methodology

Michael Baker conducted a thorough literature review and records search to determine which special-status plant and wildlife species have the potential to occur on or within the general vicinity of the project site. In addition, a general habitat assessment and field investigation of the project site was conducted and provided information of the existing conditions on the project site and potential for special-status plant and wildlife species to occur.

2.1 LITERATURE REVIEW

Prior to conducting the field survey, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site were determined through a query of the CDFW QuickView Tool in the Biogeographic Information and Observation System (BIOS), CNDDB Rarefind 5, the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the USFWS species listings.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred on the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- 2014 Breeding Season Coastal California Gnatcatcher Survey Results for the West Valley Logistics Center (Kidd Biological, Inc. August 2014);
- Delhi Sands Flower-loving Fly 2015 Focused Adult Survey at the West Valley Logistics Center Site in Fontana, California (EnviroPlus Consulting, Inc. October 2015);
- Google Earth Pro historic aerial imagery (1993 - 2017);
- West Valley Logistics Center Delineation of State and Federal Jurisdictional Waters (RBF Consulting 2014);
- West Valley Logistics Center Habitat Assessment (RBF Consulting 2013);
- San Bernardino County General Plan;
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey;
- USFWS Critical Habitat designations for Threatened and Endangered Species; and

- USFWS Endangered Species Profiles and/or Primary Constituent Elements (PCEs) for Delhi Sands Flower-loving Fly and Coastal California Gnatcatcher.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the project site. Additional recorded occurrences of those species found on or near the project site were derived from database queries. The CNDDB database was used, in conjunction with ArcGIS software, to locate the occurrence records and determine the distance from the project site.

2.2 HABITAT ASSESSMENT

Thomas J. McGill, Ph.D., Travis J. McGill, and regulatory specialist Christopher A. Johnson inventoried and evaluated the condition of the habitat within the project site on February 14 and February 26, 2013. An updated field assessment was conducted by Ashley M. Barton and Travis J. McGill on February 3, 2017 to verify existing conditions. Plant communities identified on aerial photographs during the literature review were verified by walking meandering transects through the plant communities and along boundaries between plant communities. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural wildlife corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field investigation.

Special attention was paid to any special-status habitats and/or undeveloped, natural areas, which have a higher potential to support special-status plant and wildlife species. Areas providing suitable habitat for burrowing owl were closely surveyed for signs of presence during the habitat assessment. Methods to detect the presence of burrowing owl included direct observation, aural detection, and signs of presence including pellets, white wash, feathers, or prey remains.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Plant species observed during the field survey were identified by visual characteristics and morphology in the field. Unusual and less familiar plant species were photographed during the survey and identified in the laboratory using taxonomical guides. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities, and presence of potential jurisdictional drainage and/or wetland features were noted.

Aerial photography was reviewed prior to conducting the habitat assessment. The aerials were used to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may be considered riparian habitat and/or fall under the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or the California Department of Fish and Wildlife (CDFW). In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory authorities.

2.3 SOIL SERIES ASSESSMENT

On-site and adjoining soils were researched prior to the field visit using the USDA NRCS Soil Survey for San Bernardino – Riverside County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes the project site has undergone.

2.4 PLANT COMMUNITIES

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), CDFW (2010) and Holland (1986), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community in acres.

2.5 PLANTS

Common plant species observed during the field survey were identified by visual characteristics and morphology in the field, and recorded in a field notebook. Unusual and less familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual. In this report, scientific names are provided immediately following common names of plant species (first reference only).

2.6 WILDLIFE

Wildlife species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were used to assist with identification of species during surveys included The Sibley Field Guide to the Birds of Western North America (Sibley 2003) and The Sibley Guide to Birds (Sibley 2014) for birds, A Field Guide to Western Reptiles and Amphibians (Stebbins 2003) for herpetofauna, and A Field Guide to Mammals of North America (Reid 2006) for mammals. Although common names of wildlife species are standardized, scientific names are provided immediately following common names in this report (first reference only).

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Section 3 Existing Conditions

3.1 LOCAL CLIMATE

The region is characterized by cool winter temperatures and warm summer temperatures, with its rainfall occurring almost entirely in the winter. Relative to other areas in Southern California, winters are colder with chilly to cold morning temperatures common. Climatological data obtained for the City of Fontana indicates the annual precipitation averages 12.3 inches per year. Almost all precipitation occurs in the months between January and March, with hardly any occurring in July. The wettest month is March, with a monthly average total precipitation of 3.49 inches. The average maximum and minimum temperatures for the region are 80 and 52.8 degrees Fahrenheit (F) respectively with July and August (monthly average 95° F) being the hottest months and December (monthly average 44° F) being the coldest. Temperatures during the site visit were in the high-60s (degrees Fahrenheit) with overcast skies.

3.2 TOPOGRAPHY AND SOILS

On-site surface elevation ranges from approximately 1,000 to 1,220 feet above mean sea level and generally slopes to the south. The project site is relatively flat with no areas of significant topographic relief. Based on the USDA NRCS Web Soil Survey, the project site is underlain by the following soil units (refer to Exhibits 5A and 5B, *Soils*):

- **Delhi fine sand (Db):** Delhi fine sand consists of somewhat excessively drained soils formed from sandy alluvium derived from granite sources. It is found on alluvial fans. Elevations are recorded at 30 to 1,400 feet above mean sea level (msl).

- **Hanford coarse sandy loam, 9 to 15 percent slopes (HaD):** Hanford coarse sandy loam (9 to 15 percent slopes) soils consists of well drained soils formed from alluvium derived from granite. It is found on alluvial fans. Elevations are recorded at 150 to 900 feet above msl.

- **Cieneba sandy loam, 9 to 15 percent slopes (CnD):** Cieneba sandy loam (9 to 15 percent slopes) soils consists of somewhat excessively drained soils formed from residuum weathered from granite sources. It is found on hills. Elevations are recorded at 500 to 4,000 feet above msl.

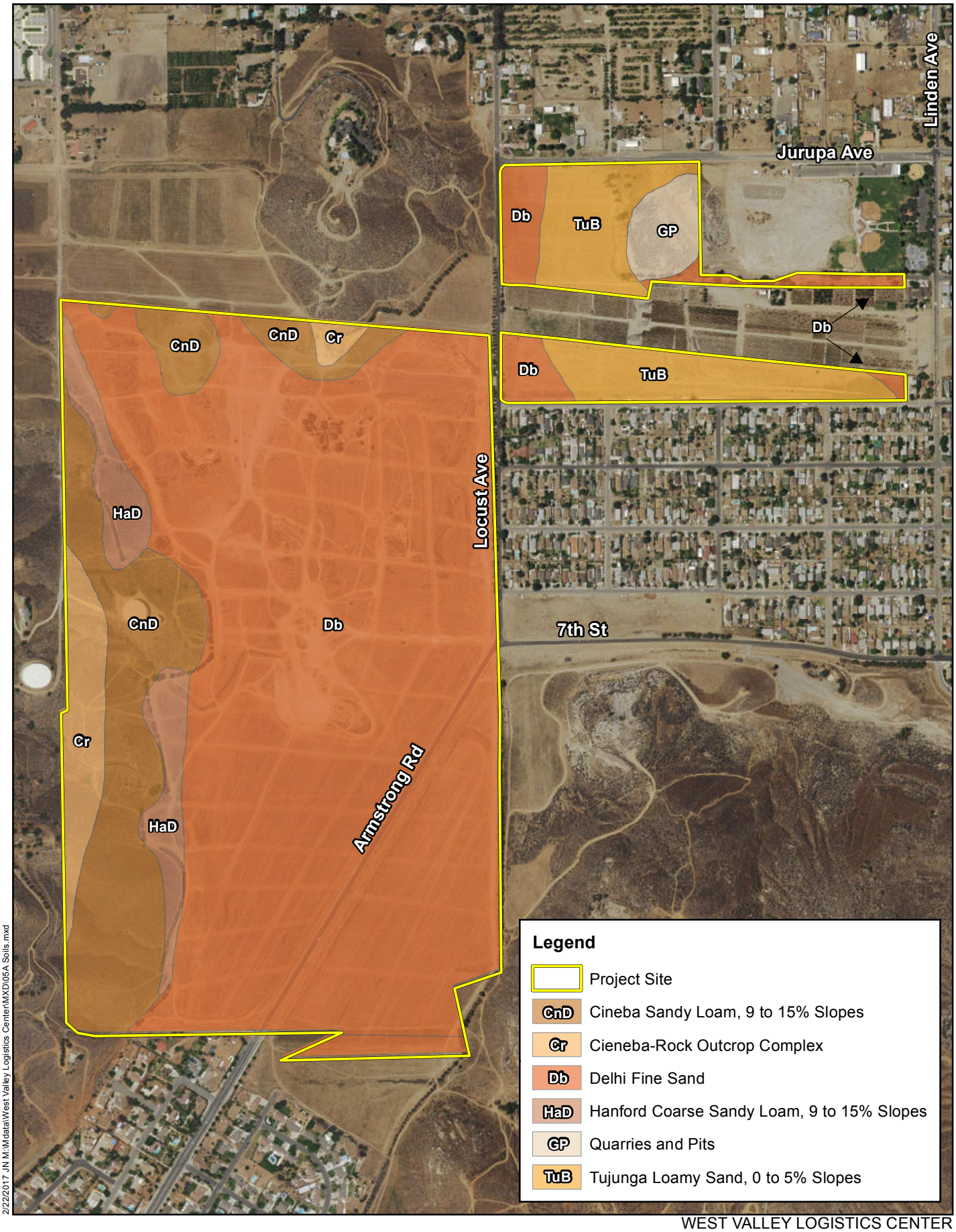
- **Cieneba – rock outcrop complex, 30 to 50 percent slopes, MLRA 20 (Cr):** The Cieneba – rock outcrop complex (30 to 50 percent slopes) consists of somewhat excessively drained soils formed from residuum weathered from granite sources. It is found on mountain slopes and hillslopes. Elevations are recorded at 500 to 5,500 feet above msl.

- **Tujunga loamy sand, 0 to 5 percent slopes (TuB):** The Tujunga loamy sand (0 to 5 percent) soils consists of somewhat excessively drained soils formed from alluvium derived from granite sources. It is found on alluvial fans. Elevations are recorded at 650 to 3,110 feet above msl.

- **Quarries and Pits soils (GP):** Quarries and pits soils are formed from residumm sources.

3.3 SURROUNDING LAND USES

The area within the general vicinity of the project site is primarily developed except for the Jurupa Mountains that have been maintained as undeveloped open space. The project site is bordered by residential developments to the south and along the northern half of the eastern boundary. The foothills of Rattlesnake Mountain are located along the southern half of the eastern boundary. The Jurupa Mountains provide open space along the western boundary, of the project site. There is a Southern California Edison (SCE) corridor along the northern boundary of the project site that has also been maintained as open space.



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WEST VALLEY LOGISTICS CENTER
HABITAT ASSESSMENT

Soils

Exhibit 5A

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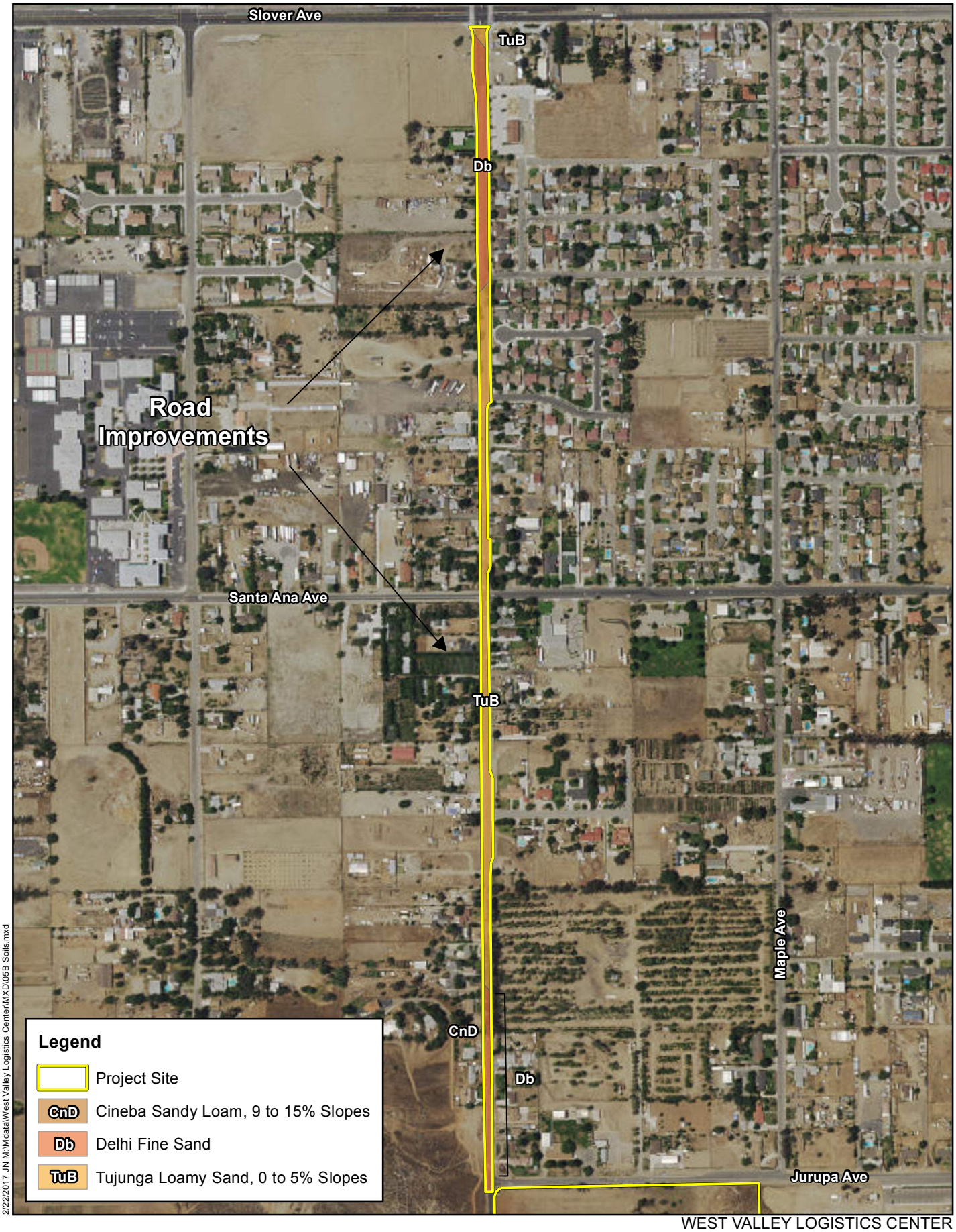

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WEST VALLEY LOGISTICS CENTER
HABITAT ASSESSMENT

Soils

Exhibit 5B

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Section 4 Discussion

4.1 SITE CONDITIONS

The project site has been subject to various types of human disturbance including agricultural use, horseback riding, hiking, decades of extensive off-road vehicle use, and illegal dumping. This long – standing regime of heavy disturbance has eliminated most of the natural plant communities previously occurring on the project site. The project site currently consists of vacant, undeveloped land that was previously used for agricultural activities. There are remnants of a house on the northern portion of the project site. Dirt access roads that have also been used for off road vehicle activities bisect the project site. The foothills of the Jurupa Mountains extend into the western portion of the project site, which remain relatively undisturbed; however, these areas are outside of the proposed development footprint and will be conserved on-site.

4.2 VEGETATION

Three (3) plant communities occur within the boundaries of the project site: Riversidian sage scrub (RSS) and disturbed RSS, mulefat scrub, and non-native grassland. The project site also contains land cover types that would be classified as Peruvian pepper stand, Eucalyptus stand, olive tree row, disturbed, and developed (refer to Exhibits 6A and 6B, *Vegetation*). These plant communities and land cover types are described in further detail below.

4.2.1 RSS and Disturbed RSS

The RSS plant community is found on the foothills of the Jurupa Mountains extending into the western boundary of the project site. This plant community is dominated by brittlebush (*Encelia farinosa*). Other plant species observed within this plant community include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), common fiddleneck (*Amsinckia intermedia*), and deerweed (*Acmispon glaber*) with and understory supporting non-native grasses (i.e. Bromes).

The disturbed RSS plant community is found within the northwestern portion of the project site west of Locust Avenue and within the eastern portion of the project site east of Locust Avenue directly south of Jurupa Avenue. This plant community has been subject to a high level of human disturbances and is dominated by California buckwheat with small patches of brittlebush and California sagebrush. Non-native plant species observed in this plant community include horseweed (*Erigeron bonariensis*), red-stemmed filaree (*Erodium cicutarium*), and non-native grasses.

4.2.2 Mulefat Scrub

The mulefat scrub plant community is located within the northern portion of the project site located to the west of Locust Avenue. This plant community is dominated by mulefat (*Baccharis salicifolia*) is found in association with the various drainage features and depressions on the project site. Other plant species observed in this plant community included castor bean (*Ricinus communis*), tamarisk (*Tamarix ramosissima*), and tree tobacco (*Nicotiana glauca*).

4.2.3 Non-native Grassland

The majority of the project site is composed of a non-native grassland plant community that has been subject to a high level of human disturbances associated with weed abatement activities and illegal off-road vehicle use. Non-native grass species observed included ripgut (*Bromus diandrus*) and Mediterranean grass (*Schismus barbatus*). This plant community is interspersed by bare ground.

The following land cover types, while not constituting plant communities, are remnant features from site's use for agricultural purposes and as a rural residence.

4.2.4 Peruvian Pepper Tree Stand

A stand of Peruvian pepper trees (*Schinus molle*) was observed on the northern portion of the project site west of Locust Avenue. This stand of Peruvian pepper trees is found in association with the remnant housing structure and is surrounded by disturbed areas and non-native grassland habitats occurring within this portion of the project site.

4.2.5 Eucalyptus Stand

Stands of eucalyptus (*Eucalyptus* sp.) were observed within the northeastern of the project site east of Locust Avenue, directly south of Jurupa Avenue. These stands of eucalyptus occur on the banks of the jurisdictional drainage feature found on this portion of the project site, and abut non-native grassland and disturbed RSS habitats occurring within this portion of the project site.

4.2.6 Olive Tree Row

An olive (*Olea europaea*) tree row can be found along the western portion of the project site located to the west of Locust Avenue and separates the non-native grassland habitat from the RSS habitat on the foothills of the Jurupa Mountains. In addition, there is an olive tree row on the western shoulder of Locust Avenue, south of Jurupa Avenue and north of 7th Street within the project site.

4.2.7 Disturbed

Disturbed areas are found throughout the project site and consist of areas that have been exposed to a high level of anthropogenic activities (i.e. illegal off-road vehicle use, dirt access roads). There areas are generally devoid of vegetation and are comprised of compact dirt surfaces. However, early successional and non-native weedy plant species have established in portions of these disturbed areas. Plant species observed within on-site disturbed areas include jimsonweed (*Datura wrightii*), milk thistle (*Silybum marianum*), short-podded mustard, tree tobacco, London rocket (*Sisymbrium irio*), and Russian thistle (*Salsola tragus*).

4.2.8 Developed

Developed areas within the project site generally consist of paved, impervious surfaces. Developed areas within the boundaries of the project site also include water reservoir tanks and paved roads (Armstrong Road and Locust Avenue).

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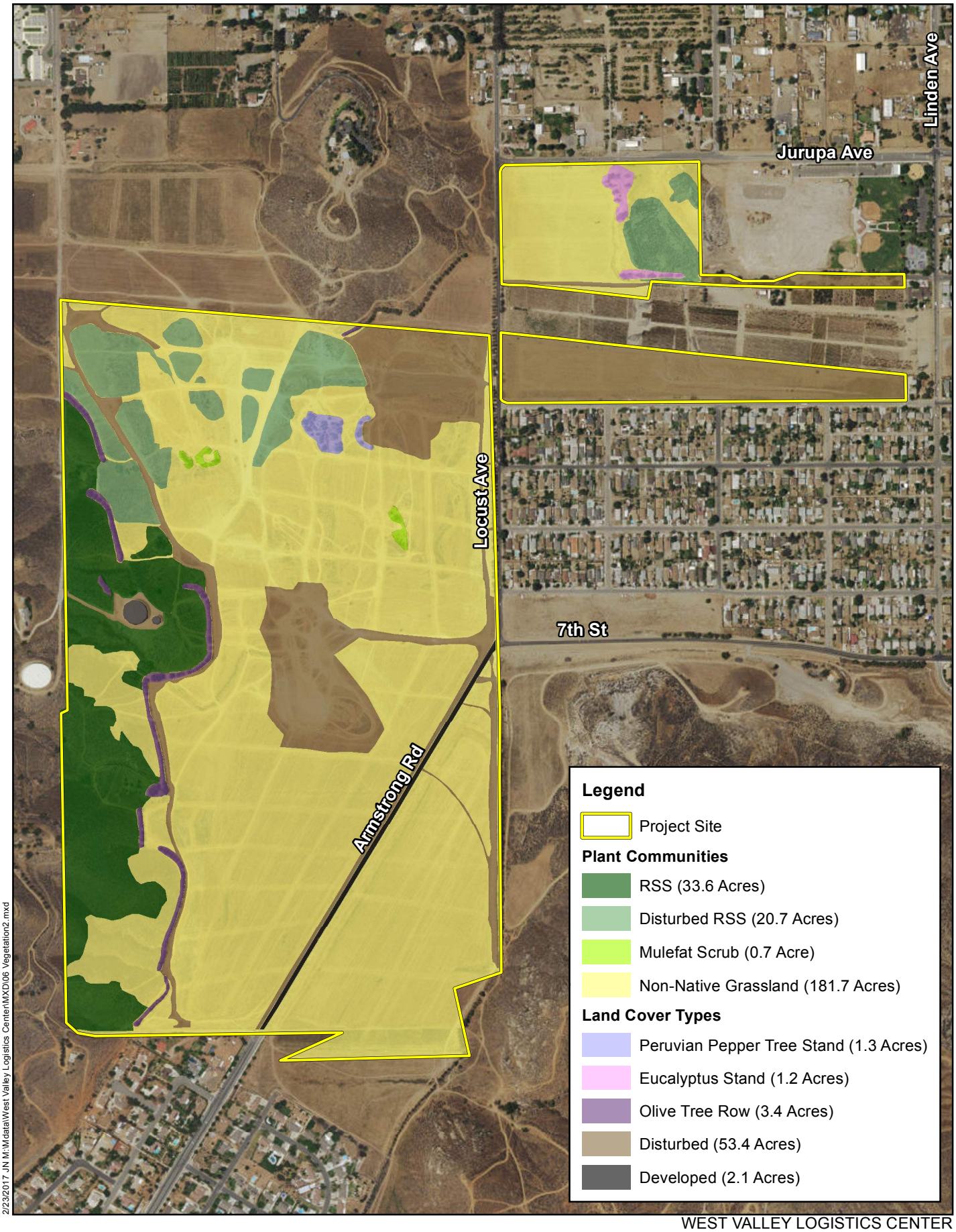

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WEST VALLEY LOGISTICS CENTER
HABITAT ASSESSMENT

Vegetation

Exhibit 6A

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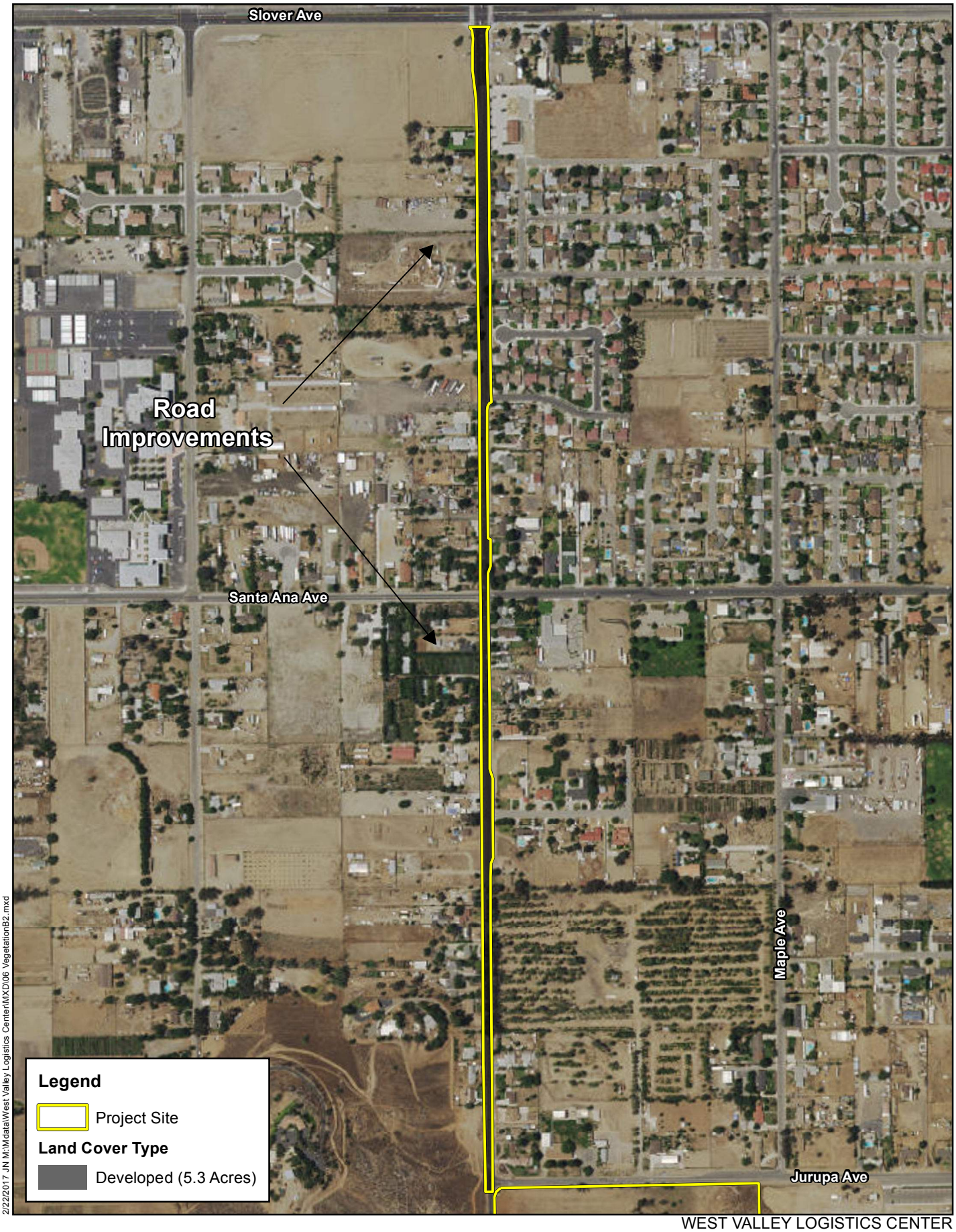

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WEST VALLEY LOGISTICS CENTER
HABITAT ASSESSMENT

Vegetation

Exhibit 6B

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4.3 WILDLIFE

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the project site. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

4.3.1 Fish

No fish or hydrogeomorphic features (e.g., creeks, ponds, lakes, reservoirs) with frequent sources of water that would support populations of fish were observed on the project site during the habitat assessment. The on-site drainage features and small depressions within the project site are ephemeral and most likely do not support standing water for long enough periods of time to support populations of fish. No fish were observed onsite. Fish are not expected to occur and are presumed absent from the project site.

4.3.2 Amphibians

No amphibians or hydrogeomorphic features with frequent sources of water that would support amphibian species were observed on the project site during the habitat assessment. The on-site drainage features and a few scattered small depressions within the project site are ephemeral and do not support standing water for periods long of time enough to support populations of amphibians. If standing water is present within these drainages or small depressions for extended periods of time, they have the potential to provide suitable habitat for western toad (*Anaxyrus boreas*). The areas with standing water were inspected during the habitat assessment for invertebrate species such as fairy shrimp species. Fairy shrimp were not observed onsite and are presumed absent.

4.3.3 Reptiles

The project site has the potential to support reptilian species adapted to a high level of human disturbances. However, no reptilian species were observed during the field survey. Reptilian species that are expected to occur on-site include western side-blotched lizard (*Uta stansburiana elegans*), western fence lizard (*Sceloporus occidentalis*), red racer (*Coluber flagellum piceus*), alligator lizard (*Elgaria multicarinata*), southern pacific rattlesnake (*Crotalus oreganus helleri*), and gopher snake (*Pituophis catenifer*).

4.3.4 Avian

The project site provides suitable foraging and cover habitat for a variety of resident and migrant bird species. Common bird species detected during the field survey included Anna's hummingbird (*Calypte anna*), northern flicker (*Colaptes auratus*), California towhee (*Melozone crissalis*), mountain bluebird (*Sialia currucoides*), western meadowlark (*Sturnella neglecta*), American crow (*Corvus*

brachyrhynchos), great egret (*Ardea alba*), mourning dove (*Zenaida macroura*), red-tailed hawk (*Buteo jamaicensis*), and killdeer (*Charadrius vociferus*).

4.3.5 Mammals

The project site and surrounding habitat has the potential to support mammalian species adapted to a high level of human disturbances. However, most mammal species are nocturnal and are difficult to observe during a diurnal field survey. The only mammalian species observed during the field survey was California ground squirrel (*Otospermophilus beecheyi*). Common mammalian species that are expected to occur on-site include raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), Botta's pocket gopher (*Thomomys bottae*), Audubon's cottontail (*Sylvilagus audubonii*), and striped skunk (*Mephitis mephitis*).

4.4 NESTING BIRDS

No active nests or birds displaying nesting behavior were observed during the field survey. Although heavily disturbed, the project site provides suitable foraging habitat and has the potential to provide suitable nesting opportunities for a variety of year-round and seasonal avian residents. The project site has the potential to support birds that nest on the open ground, such as killdeer, western meadowlark, and burrowing owl. Additional nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds is present within the RSS habitat along the western boundary, within the eucalyptus stand located directly south of Jurupa Avenue or within the olive tree row located west of Locust Avenue.

4.5 AVIAN CORRIDOR AND PROJECT DESIGN FEATURE

The project site is located within USFWS designated Critical Habitat for California gnatcatcher. California gnatcatcher is an obligate resident of sage scrub habitats, which includes the RSS plant community found on the foothills of the Jurupa Mountains extending onto the western boundary of the project site. However, the majority of the project site has been heavily disturbed by agricultural and recreational activities for several decades and no longer supports native habitat, in particular, sage scrub habitats. The 44.8 acres of RSS habitat found on the western boundary of the project site is continuous with RSS habitat found in the Jurupa Mountains west of the project site and will not be impacted from site development. The proposed project has been designed to avoid the RSS habitat on the western boundary of the project site and will be permanently conserved and managed as natural open space by an acceptable entity approved by CDFW. Although California gnatcatcher was not detected on-site during the 2014 focused survey, it was previously documented in 2004 and 2008 nesting in the RSS habitat immediately west of the project site. California gnatcatcher has also been documented in Rattlesnake Mountain east of the project site. The lack of RSS habitat between the Jurupa Mountains, which terminates along the western boundary of the project site and Rattlesnake Mountain, which terminates along the eastern boundary of the project site, suggests that dispersal of California gnatcatcher between these two ranges is severely constrained and perhaps has been eliminated.

The southern extent of the Jurupa Mountains is located in Riverside County and extends northwards into San Bernardino County with its northern terminus in south Fontana, which includes the project site. The Western Riverside County developed a Multiple Species Habitat Conservation Plan (MSHCP) in 2004 to protect and provide long-term conservation for 146 species, including California gnatcatcher. The MSHCP identifies the Jurupa Mountains as a large non-contiguous block of habitat that serves as a "stepping stone" for avian species, including California gnatcatcher, that migrate between Riverside and San Bernardino Counties. Due to the extensive anthropogenic disturbances, the project site has been subject to over several decades (i.e., agricultural and recreational activities), has resulted in the loss of native habitats from the project site. Further, localized wildlife movement between Rattlesnake Mountain and the Jurupa Mountain has been severely constrained by the lack of existing habitat features, primarily RSS vegetation that would support the movement of avian wildlife between Rattlesnake Mountain and the Jurupa Mountain, and site development would likely further restrict avian wildlife movement.

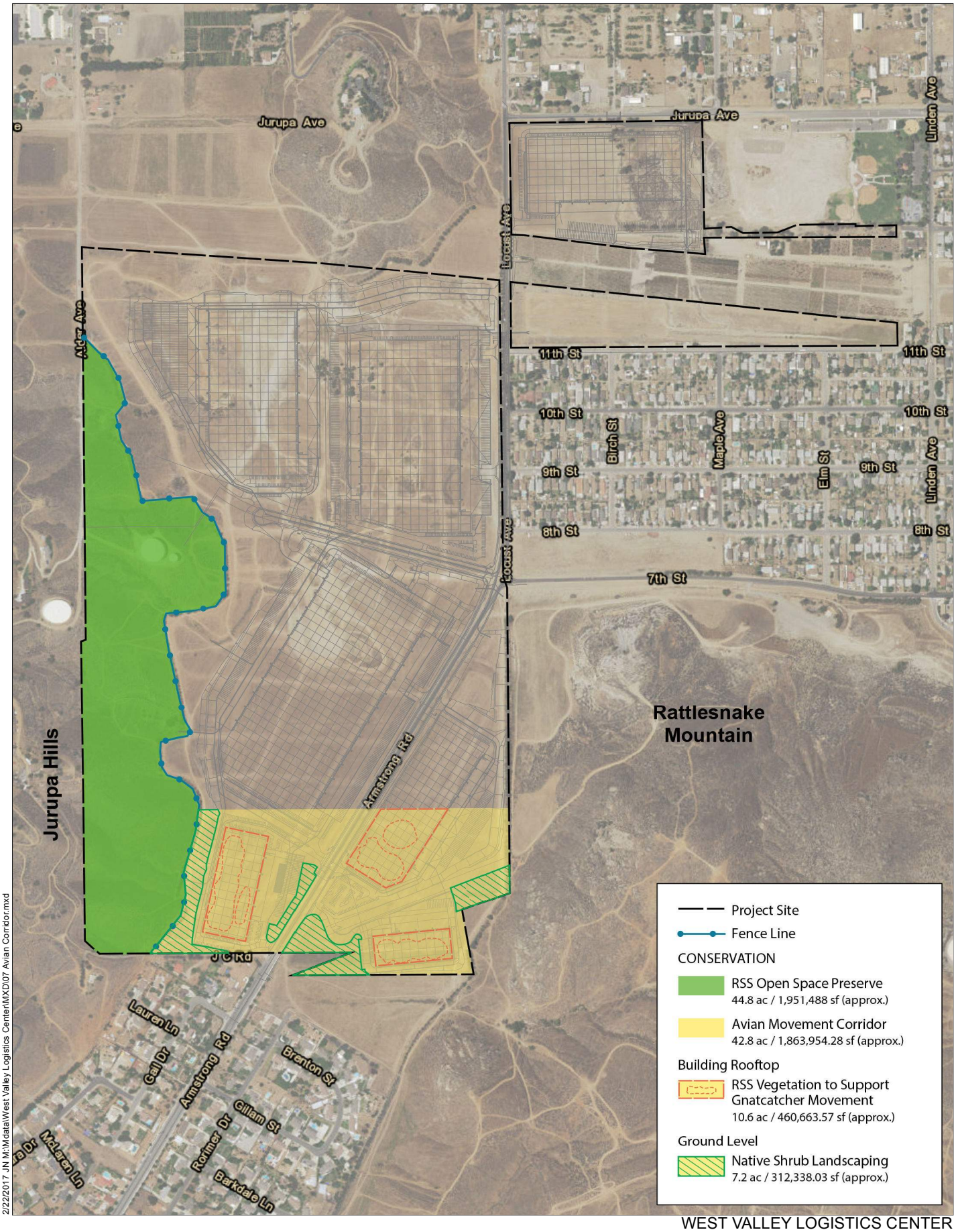
To facilitate avian wildlife movement, including California gnatcatcher, between Rattlesnake Mountain and Jurupa Mountain, a design feature will be added to the proposed project to create a non-contiguous corridor of RSS vegetation across a portion of the project site. RSS habitats will be planted within three open areas between buildings, as well as on the roof tops of the southern three buildings to create non-contiguous stepping stones of RSS habitat between Rattlesnake Mountains and the Jurupa Mountains (refer to Exhibit 7, *Avian Corridor*). This design feature will provide vegetative cover that will be serve as foraging habitat for California gnatcatcher between the two mountains. The availability of this non-contiguous, linear corridor of avian habitat would provide approximately 5 to 6 acres of RSS habitat connecting Rattlesnake Mountain with the Jurupa Mountains. Vegetation would include native RSS plant species selected for the compatibility with California gnatcatcher habitat. These 6 acres of RSS/avian habitat would provide cover and resting areas for dispersing California gnatcatcher, as well as vegetation for foraging opportunities. The RSS habitat found in the immediate area is an open, sparsely vegetated plant community dominated by brittlebush, California sagebrush, California buckwheat, and deerweed. A detailed plant pallet is available in Appendix D. Performance standards will be established and a long-term management plan, including annual biological monitoring and an annual reporting program will be adopted to ensure the viability and long-term sustainability of this avian corridor. A final design for this roof top corridor will be developed after the concept is fully vetted with CDFW to ensure that habitat requirements for California gnatcatcher were adequately addressed, as well as other migratory bird species, and would be included in the Habitat Mitigation and Monitoring Plan as part of the CDFW Section 1602 Streambed Alteration Agreement for the project. It should also be noted that this proposed non-contiguous vegetation corridor is consistent with the Western Riverside County MSHCP's Conservation Program.

The lack of native vegetation due to an ongoing regime of heavy disturbance over the majority of the project site has eliminated viable cover needed by terrestrial species for movement opportunities across the project site. Terrestrial movement is further compromised by the presence of Locust Avenue that bisects the project site, generally from north to south. Locust Avenue connects south Fontana and the

unincorporated community of Bloomington with State Route 60 and is heavily traveled, further constraining the use of the project site as a movement corridor. This lack of connectivity between Rattlesnake Mountain and the Jurupa Mountains through the project site, precludes the use of the project site as a movement corridor for terrestrial species, including San Diego black-tailed jackrabbit, California glossy snake, orange-throated whiptail, San Diego banded gecko, etc. The project site may be crossed by avian species provided their travel distance between patches of vegetation exceeds the current (roughly 0.50 miles) of un-vegetated open space between Rattlesnake Mountain and the RSS habitat found along the western boundary of the project site. One such species may be coastal California gnatcatcher that is known to inhabit RSS habitats on either side of the project site. The design feature will improve movement opportunities over the current conditions for avian species such as coastal California gnatcatcher that move through the area using patches of vegetation in a stepping stone manner.

4.6 JURISDICTIONAL AREAS

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The U.S. Army Corps of Engineers (Corps) Regulatory Branch regulates discharge of dredge or fill materials into “waters of the United States” pursuant to Section 404 of the Federal Clean



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Michael Baker INTERNATIONAL

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Source: Esri Imagery, Esri SSURGO Data Downloader

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HABITAT ASSESSMENT

Avian Corridor

Exhibit 7

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Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the Regional Water Quality Control Board (Regional Board) regulates discharges to surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act and the CDFW regulates alterations to streambed and associated plant communities under Fish and Wildlife Code Sections 1600 *et seq*.

A Delineation of State and Federal Jurisdictional Waters was prepared under a separate cover by Michael Baker (formerly RBF Consulting, 2014). Please refer to Appendix E for a detailed analysis of the state and federal jurisdictional waters located on-site. Per the results of the 2014 delineation, the project site contains a total of 0.27-acre (2,564 linear feet) of surface waters of the State, of which a total of 0.05-acre constitute wetlands. Placement of fill and/or alteration within these waters is subject to Regional Board and CDFW jurisdiction and approval; therefore, associated impacts must be avoided, minimized, and fully mitigated pursuant to the California Water Code §§ 13000 et.seq and Fish and Game Code. The project applicant must obtain the following regulatory approvals if construction activities are proposed within the identified jurisdictional areas: an Approved Jurisdictional Determination from the Corps documenting isolated conditions and the Corps lack of jurisdictional authority; Regional Board Report of Waste Discharge (ROWD) pursuant to California Water Code Section 13260; and, CDFW Section 1602 Streambed Alteration Agreement. It should be noted that an Approved Jurisdictional Determination has been received from the Corps documenting that no federal jurisdiction waters are located within the boundaries of the project site.

4.7 SPECIAL-STATUS BIOLOGICAL RESOURCES

The CNDDB Rarefind 5, CNDDB Quickview Tool in BIOS, and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California was queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Fontana USGS 7.5-minute quadrangle. Since the general area and the surrounding valley floor have been developed, with the exception of the Jurupa Mountains and Rattlesnake Mountain, only a single quadrangle was queried that encompasses the project site. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified fourteen (14) special-status plant species, thirty-eight (38) special-status wildlife species, and one (1) special-status plant community as having the potential to occur within the Fontana quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project site are presented in Appendix C, *Potentially Occurring Special-Status Biological Resources*. Refer to Appendix C for a detailed analysis regarding the potential occurrence of special-status plant and wildlife species within the project site.

4.7.1 Special-Status Plants

Fourteen (14) special-status plant species have been recorded in the CNDDB and CNPS in the Fontana USGS 7.5-minute quadrangle (refer to Appendix C). No special-status plant species were observed on-site during the habitat assessment. The majority of the project site has been disturbed by anthropogenic activities which have eliminated natural plant communities that once occurred within the boundaries of the project site. However, the RSS plant community on the western boundary of the project site, that will not be impacted and will be conserved has a low potential to provide suitable habitat for Plummer's mariposa-lily (*Calochortus plummerae*), Parry's spineflower (*Chorizanthe parryi var. parryi*), and paniculate tarplant (*Deinandra paniculata*). Since no impacts to the RSS habitat will occur from implementation of the proposed project, no focused plant surveys are recommended. All other special-status plant species are not expected to occur and are presumed to be absent from the project site.

4.7.2 Special-Status Wildlife

Thirty-eight (38) special-status wildlife species have been reported in the Fontana USGS 7.5-minute quadrangle (refer to Appendix C). Cooper's hawk (*Accipiter cooperii*) and burrowing owl were the only special-status wildlife species observed on-site during the habitat assessment. In addition, southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), olive-sided flycatcher (*Contopus cooperi*), and San Diego black-tailed jackrabbit were observed on-site during the 2014 focused California gnatcatcher focused survey. Based on habitat requirements for specific special-status wildlife species and the availability and quality of habitats needed by each species, it was determined that the project site has a high potential to support great blue heron (*Ardea herodias*), a moderate potential to support , coastal California gnatcatcher, and has a low potential to support California glossy snake, Bell's sage sparrow (*Artemisiospiza belli belli*), orange-throated whiptail, Costa's hummingbird (*Calypte costae*), northern harrier (*Circus cyaneus*), San Diego banded gecko, red-diamond rattlesnake (*Crotalus ruber*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), loggerhead shrike (*Lanius ludovicianus*), San Diego black-tailed jackrabbit, and coast horned lizard (*Phrynosoma blainvillii*). All remaining special-status wildlife species are presumed to be absent from the project site based on habitat requirements, availability and quality of habitat needed by each species, and known distributions.

The potential occurrence of coastal California gnatcatcher, Delhi sands flower-loving fly, burrowing owl, and San Diego black-tailed jackrabbit within or adjacent to the project site is described in further detail below.

4.7.2.1 Coastal California Gnatcatcher

The coastal California gnatcatcher is a federally threatened species with restricted habitat requirements: it is an obligate resident of sage scrub habitats that are dominated by California sagebrush. This species is not listed as threatened or endangered by the state of California, but it is designated as a species of Special Concern. This species generally occurs below 984 feet elevation in coastal regions and below

1,640 feet inland. It ranges from Ventura County south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. The coastal California gnatcatcher prefers habitat with more low-growing vegetation where it breeds between mid-February and the end of August, with peak activity from mid-March to mid-May. Although coastal California gnatcatcher is known to occur within San Bernardino County, the species has a limited distribution. The closest occurrence of coastal California gnatcatcher to the project site occurred within the Santa Ana River wash approximately 0.78 miles southwest of the project site (CNDDB, 1995).

The RSS plant community extending out of the foothills of the Jurupa Mountains onto the western portion of the project site has the potential to provide suitable habitat for coastal California gnatcatcher. The CNDDB mapped coastal California gnatcatcher within the vicinity of the project site in 1994 and 1995. The CNDDB mapped this occurrence within the northwestern corner of the project site. It should be noted the accuracy of this occurrence was mapped in the CNDDB as a non-specific area; however, coordinates provided by CNDDB place this occurrence off-site approximately 300 feet west. A pair was observed in 2004 and 2008 in the same general location.

Although coastal California gnatcatcher has been observed on and adjacent to the project site during these surveys, no coastal California gnatcatcher were detected during focused breeding season surveys conducted on-site during the 2014 breeding season surveys (refer Appendix F) and were not observed or heard during the updated habitat assessment in 2017. The RSS habitat on the western boundary of the project site supports patches of suitable habitat for coastal California gnatcatcher. Based on-site conditions, it was determined that the project site has a moderate potential to support coastal California gnatcatcher.

The RSS plant community on the western boundary of the project site will be conserved on-site and no impacts will occur to this plant community from site development. As a result, no further focused surveys are recommended. Prior to development of the proposed project, a nesting bird clearance survey shall be conducted to ensure California gnatcatcher remain absent from the project site. If California gnatcatcher are observed during the pre-construction clearance survey within the RSS habitat that not be impacted, stringent avoidance and minimization measures will be developed to ensure no indirect impacts to California gnatcatcher will occur.

4.7.2.2 Delhi Sands Flower-loving Fly

Delhi Sands flower-loving fly habitat is limited to areas that include Delhi fine sand, an Aeolian (wind-deposited) soil type. The USFWS has identified the presence of Delhi fine sands as the baseline criterion for the determination of suitable or potentially suitable habitat for this species (USFWS, 1996). Soil disturbances associated with agricultural activities and urban development are primary causes of habitat loss and degradation. The highest density of Delhi Sands flower-loving fly have been found in habitat that includes a variety of plants including California buckwheat (*Eriogonum fasciculatum*), California croton (*Croton californicus*), and telegraph weed (*Heterotheca grandiflora*).

Areas known to have been occupied by Delhi Sands flower-loving fly or areas that contain suitable habitat for the fly have been divided into three recovery units (Colton, Jurupa, and Ontario Recovery Units). These recovery units are defined as large geographic areas based on geographic proximity, similarity of habitat, and potential genetic exchange. Land with suitable Delhi Sands flower-loving fly habitat include only those areas with open, undisturbed Delhi Series soils that have not been permanently altered by residential, commercial, or industrial development, or other human actions (USFWS, 1997).

Existing development and disturbances to the project site, agricultural activities, disking activities, and off road vehicle use have removed or contaminated clean Delhi fine sand soils and removed the native vegetation needed for Delhi Sands flower-loving fly from the project site. Open, undisturbed Delhi fine sand soils no longer exist on the project site. Two consecutive years of negative surveys are required to demonstrate absence of Delhi Sands flower-loving fly according to the USFWS protocol. Consecutive negative surveys were most recently conducted in 2011 and 2012 (refer to Appendix G). In addition, a total of six consecutive years of negative focused surveys were conducted between 2003 and 2009. No focused surveys were conducted in 2010. The most recent focused survey was conducted in 2015 and no Delhi Sands flower-loving fly were observed (refer to Appendix G). Based on-site conditions and previous negative protocol surveys, it was determined that Delhi Sands flower-loving fly is presumed absent from the project site. However, these results and current site conditions have not been fully vetted with USFWS in order to rule out the need for further surveys.

4.7.2.3 Burrowing Owl

The burrowing owl is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk 1993; Dechant et al. 1999). Burrowing owls are dependent upon the presence of fossorial mammals, such as ground squirrels, whose burrows are used for roosting and nesting (Haug and Didiuk 1993). The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. Large, hard objects at burrow entrances stabilize the entrance from collapse and may inhibit excavation by predators.

Burrowing owls have crepuscular (dawn and dusk) hunting habits, but are often observed perched in or near the burrow entrance during the day. They prey upon invertebrates and small vertebrates (Thomsen 1971) through the low vegetation which allows for foraging visibility. The nesting season typically occurs between February 1 and August 31. Burrowing owls in southern California are considered year-round residents.

The project site provides open foraging habitat and line-of-site opportunities for burrowing owls. Further the project site provides fossorial mammal burrows (> 4 inches in diameter) with the potential to provide suitable nesting opportunities for burrowing owl. One burrowing owl was observed on-site located approximately 0.15 miles west of Locust Avenue (refer to Exhibit 8, *Burrowing Owl Location*) during the 2017 updated habitat assessment. Burrowing owls were not observed on-site during prior survey efforts. This burrowing owl was also observed flushing to three auxiliary burrows located approximately 266 feet west of the occupied burrow. Since the updated habitat assessment was conducted at the beginning of the avian breeding season, at the end of winter, it is possible that the burrowing owl observed on-site is not a resident, is a migratory bird that will leave the site prior to the peak breeding season.

The project applicant shall retain a qualified biologist to conduct preconstruction surveys for burrowing owls no fewer than 14 days prior to any ground-disturbing activities, to be repeated 24 hours prior to grading. The preconstruction surveys shall be approved by the City of Fontana Director of Community Development and conducted in accordance with current survey protocols provided in the CDFW Staff Report on Burrowing Owl Mitigation (March 7, 2012). In the event a burrowing owl is found to be present on site during the preconstruction survey, the project applicant shall ensure that the applicable avoidance measures outlined in the CDFW Staff Report on Burrowing Owl Mitigation (March 7, 2012) are applied to the proposed project (e.g., avoid direct impacts to occupied burrows during nesting season). Any active avoidance measures during the breeding season must to be coordinated with CDFW.

4.7.2.4 San Diego Black-tailed Jackrabbit

The San Diego black-tailed jackrabbit is designated by the CDFW as a California species of special concern. There are seventeen (17) subspecies of *Lepus californicus* throughout western North America. San Diego black-tailed jackrabbit is restricted to the coastal side of the Transverse Ranges between Los Angeles County and Baja California Norte (Howard 1995). It is generally a nocturnal species, hiding in depressions ("forms") underneath shrubs during the day and foraging at night. During periods of extreme heat, they may utilize existing burrows or dig their own (Riverside County 2003).

The black-tailed jackrabbit can be found occupying plant communities with a mixture of shrubs, grasses, and forbs. Typical habitat includes arid areas with shortgrass vegetation, RSS, Riversidian alluvial fan sage scrub (RAFSS), chaparral, disturbed areas, and agriculture, as well as occasionally near willow scrub or juniper woodlands. The primary vegetative requirement for this species appears to be a diversity in plant species including mixed grasses, forbs, and shrubs for food and shrubs or small trees for cover. Moderately open areas without dense understory growth is preferred. The same habitat is used year-round by this species due to the fact that it does not migrate or hibernate during the winter. Home ranges vary due to habitat and habitat quality and can range from 0.4 to 1.2 square miles (Howard 1995).

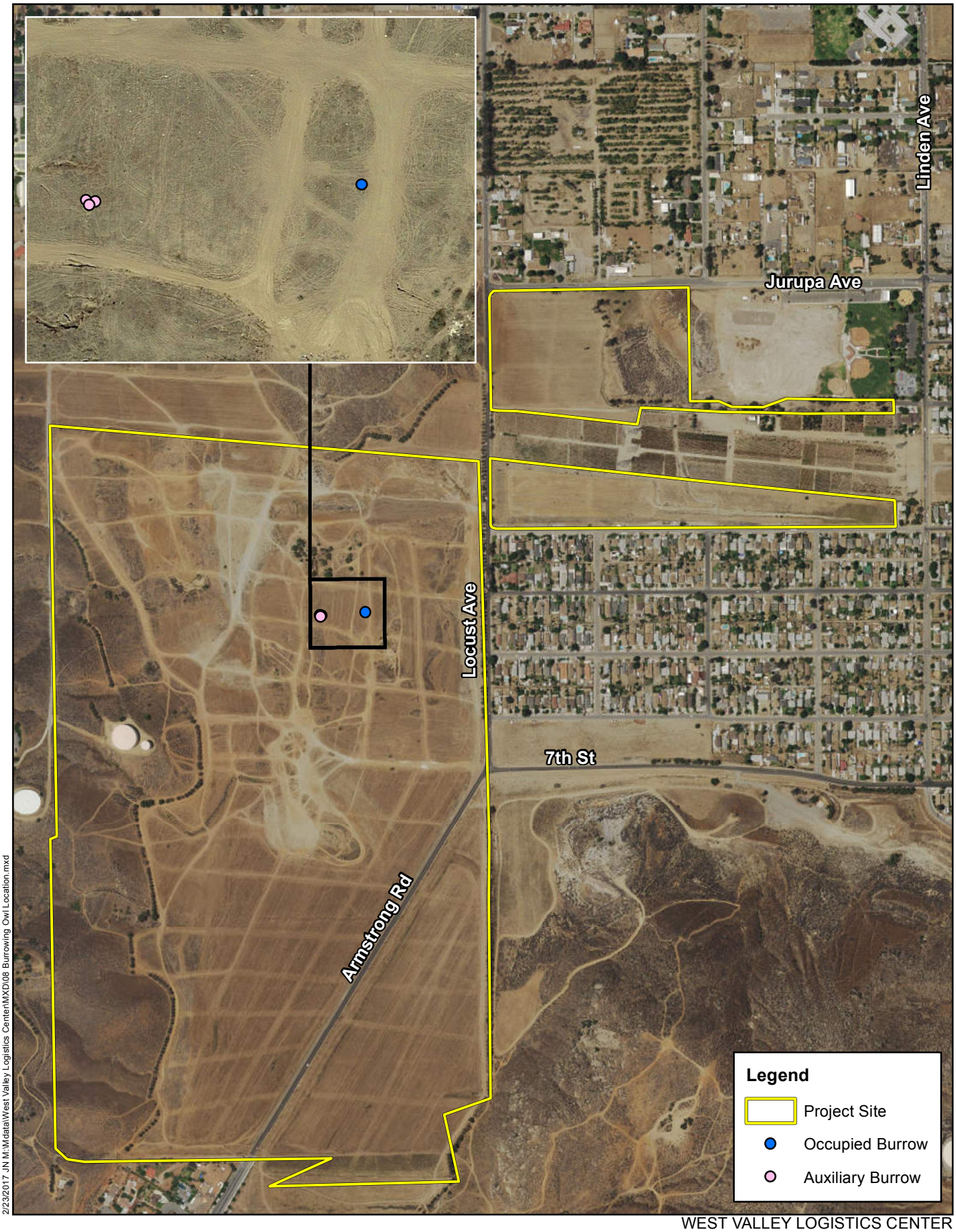
Breeding can occur generally throughout the entire year, particularly in the more southerly regions of the species' range. Peak breeding appears to generally occur from January to August throughout the species' range. Litter sizes tend to be approximately 2.3 to 2.5 in California, with an estimated average of about 10 young per female per year (Riverside County 2003). The black-tailed jackrabbit is an important prey species for many raptors including grassland raptors such as ferruginous hawks (*Buteo regalis*), Swainson's hawks (*Buteo swainsoni*), and red-tailed hawks; coyotes (*Canis latrans*); domestic dogs (*Canis familiaris*); mountain lions (*Felis concolor*); housecats (*Felis catus*); and bobcats (*Lynx rufus*). Humans are also known to hunt black-tailed jackrabbits for food and hunt, trap, or poison it as a pest species.

The black-tailed jackrabbit was not observed on-site during the 2017 habitat assessment. However the black-tailed jackrabbit was observed in 2014 within the RSS habitat along the western portion of the site that is connected with a larger block of RSS habitat to the west of the project site that extends across the Jurupa Mountains as part of a large continuous block of RSS habitat. This jackrabbit was not observed foraging in the areas that comprise the development footprint for this project, specifically the areas that are heavily disturbed and no longer support native vegetation. Since the RSS habitat will not be developed and will remain available, impacts to the black-tailed jackrabbit will be less than significant.

4.7.3 Special-Status Plant Communities

According to the CNDDB, one (1) special-status plant communities have been reported in the Fontana USGS 7.5-minute quadrangle: Riversidian Alluvial Fan Sage Scrub (refer to Appendix C). Riversidian Alluvial Fan Sage Scrub was not observed on-site during the habitat assessment and is presumed absent from the project site.

The project site contains approximately 33.6 acres of RSS habitat. The temporary loss of 0.15 acres of RSS habitat due to the installation of a water pipeline along the project site's western boundary will result in the loss of a minor and insignificant amount of RSS habitat. The 33.6 acres of RSS habitat from which the 0.15 acres will be temporarily removed (a 0.3% loss of the 33.6 acres of on-site RSS habitat) are also part of a much larger complex of RSS found in the Jurupa Mountains, further minimizing the potential significance of any impacts to special-status species that may occur in the RSS habitat found along the project site's western boundary and extending to the west throughout the Jurupa Mountains. The site will be restored following the installation of the water pipeline



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WEST VALLEY LOGISTICS CENTER
HABITAT ASSESSMENT

Burrowing Owl Location

Exhibit 8

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4.7.4 Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the USFWS regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is located within federally designated Critical Habitat Unit 10 for coastal California gnatcatcher (refer to Exhibit 9, *Critical Habitat*). Designated Critical Habitat Unit 10 is associated with San Bernardino and Riverside Counties. However, the project does not occur on federal lands and will not receive federal funding or require a federal permit. Further, the jurisdictional features on the project site were determined to be isolated waters of the State that do not qualify as jurisdictional waters of the United States, under the regulatory authority of the Corps. Therefore, a CWA Section 404 permit would not be required from the Corps for impacts to the on-site drainage features. As a result, the proposed project does not have a federal nexus and consultation by a federal agency with USFWS for loss or adverse modification to Critical Habitat would not be required.

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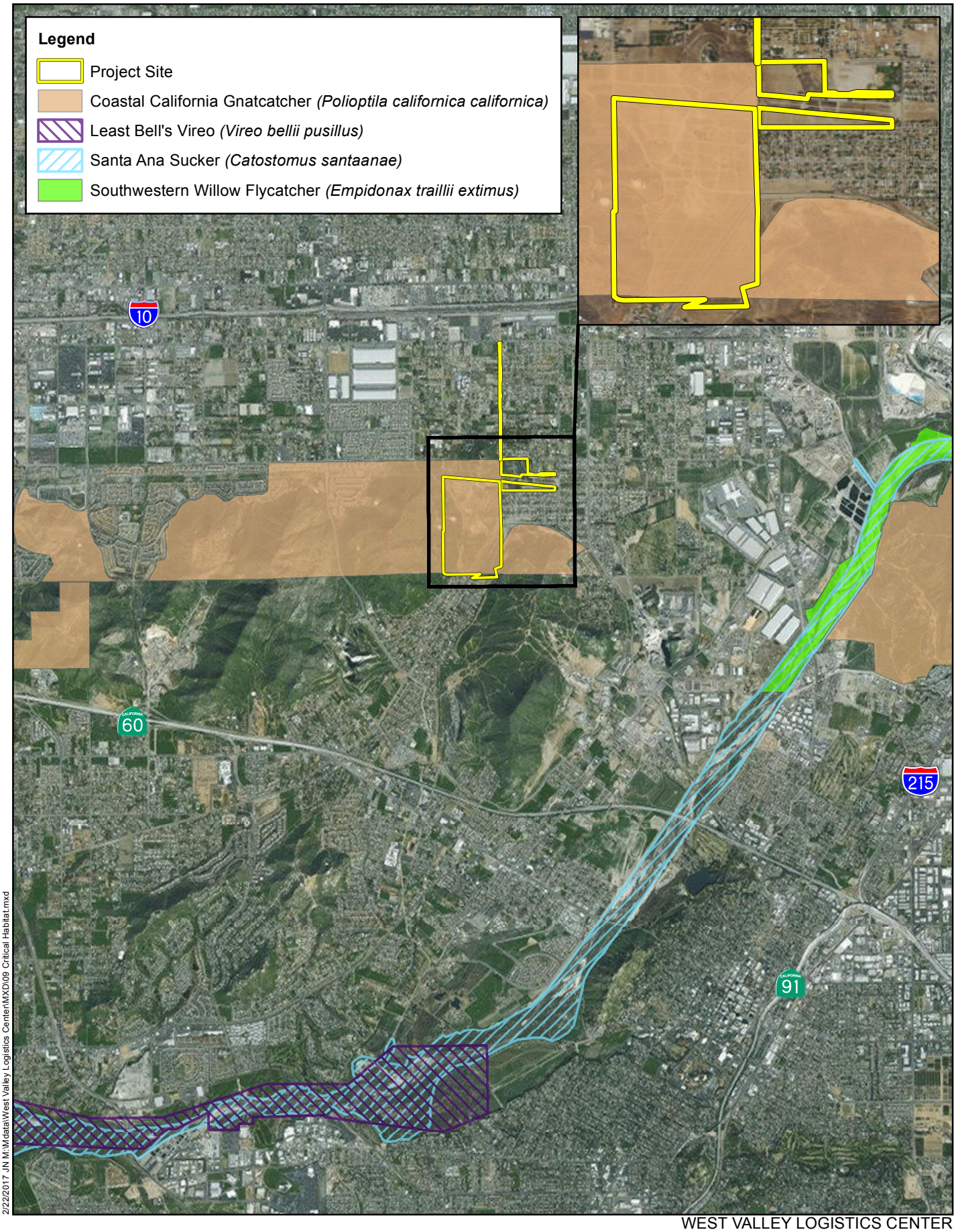

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Source: Esri Imagery

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HABITAT ASSESSMENT

Critical Habitat

Exhibit 9

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Section 5 Conclusion and Recommendations

The proposed project site consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances (e.g., agricultural activities, off-road vehicle use, and weed abatement activities). As a result, the majority of the natural plant communities that once occurred on the project site have been heavily disturbed, reducing the suitability of the on-site habitat to support special-status plant and wildlife species.

No special-status plant species were observed on-site during the habitat assessment. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the project has a low potential to provide suitable habitat for Plummer's mariposa-lily, Parry's spineflower, and paniculate tarplant. All other special-status plant species are not expected to occur and are presumed to be absent from the project site. Since the proposed project footprint, will develop areas outside of the RSS habitat which is restricted to the western boundary, impacts to special-status plants are not anticipated. However, since CDFW will issue a 1602 permit for site development, further discussion with CDFW is recommended regarding a 2017 sensitive plant survey.

Cooper's hawk and burrowing owl were the only special-status wildlife species observed on-site during the updated habitat assessment. In addition, southern California rufous-crowned sparrow, olive-sided flycatcher, and San Diego black-tailed jackrabbit were observed on-site during the 2014 focused California gnatcatcher focused survey, but was not observed in 2017. Based on habitat requirements for specific special-status wildlife species and the availability and quality of habitats needed by each species, it was determined that the project site has a high potential to support great blue heron, a moderate potential to support coastal California gnatcatcher, and has a low potential to support Delhi Sands flower-loving fly, California glossy snake, Bell's sage sparrow, orange-throated whiptail, Costa's hummingbird, northern harrier, San Diego banded gecko, red-diamond rattlesnake, San Bernardino ringneck snake, loggerhead shrike, San Diego black-tailed jackrabbit, and coast horned lizard. All remaining special-status wildlife species are presumed to be absent from the project site based on habitat requirements, availability and quality of habitat needed by each species, and known distributions.

The temporary loss of 0.15 acres of RSS habitat due to the installation of a water pipeline along the project site's western boundary will result in the loss of a minor and insignificant amount of RSS habitat. The 33.6 acres of RSS habitat from which the 0.15 acres will be temporarily removed (a 0.3% loss of the 33.6 acres of on-site RSS habitat) are also part of a much larger complex of RSS found in the Jurupa Mountains, further minimizing the potential significance of any impacts to special-status species that may occur in the RSS habitat found along the project site's western boundary and extending to the west throughout the Jurupa Mountains. The site will be restored following the installation of the water pipeline.

Based on the results of the 2014 delineation the project applicant must obtain state regulatory approvals if construction activities are proposed within the identified jurisdictional areas: ROWD pursuant to California Water Code Section 13260; and CDFW Section 1602 Streambed Alteration Agreement. An Approved Jurisdictional Delineation documenting isolated conditions and absence of waters of the U.S. has been issued by the Corps.

The project site is located within federally designated Critical Habitat for coastal California gnatcatcher. However, the project does not occur on federal lands and is not receiving any federal funding or a federal permit. As a result, the proposed project does not have a federal nexus and consultation with the USFWS for loss or adverse modification to Critical Habitat would not be required.

Pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season. The nesting season generally extends from early February through August, but can vary slightly from year to year based upon seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. As part of the nesting bird clearance survey, a pre-construction burrowing owl clearance survey shall be conducted to ensure that burrowing owl, remain absent from the project site

If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor and/or listed species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest becomes inactive under natural conditions, construction activities may resume within the buffer area.

The project applicant shall retain a qualified biologist to conduct preconstruction surveys for burrowing owls no fewer than 14 days prior to any ground-disturbing activities, to be repeated 24 hours prior to grading. The preconstruction surveys shall be approved by the City of Fontana Director of Community Development and conducted in accordance with current survey protocols provided in the CDFW Staff Report on Burrowing Owl Mitigation (March 7, 2012). In the event a burrowing owl is found to be present on site during the preconstruction survey, the project applicant shall ensure that the applicable avoidance measures outlined in the CDFW Staff Report on Burrowing Owl Mitigation (March 7, 2012) are applied to the proposed project (e.g., avoid direct impacts to occupied burrows during nesting season). Any active avoidance measures during the breeding season must to be coordinated with CDFW.

Section 6 References

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Appendix A Site Photographs

Appendix B Flora and Fauna Compendium

Appendix C Potentially Occurring Special-Status Biological Resources

Appendix D RSS Plant Palette

Appendix E 2014 Delineation of State and Federal Jurisdictional Waters

Appendix F 2014 Breeding Season Coastal California Gnatcatcher Survey Results

Appendix G Delhi Sands Flower-loving Fly 2015 Focused Adult Survey

Appendix B

Plant Species Observed

Appendix B
Plant Species Observed

Family	Scientific Name	Common Name
GYMNOSPERMS		
Cupressaceae	*Cupressus sempervirens**	Italian cypress
	*Thuja occidentalis**	arborvitae
Cycadaceae	*Cycas revoluta**	sago palm
Pinaceae	*Pinus* sp.*	pine
ANGIOSPERMS – EUDICOTS		
Aizoaceae	*Carpobrotus edulis**	hottentot-fig
Amaranthaceae	*Amaranthus blitoides**	prostrate amaranth
Anacardiaceae	*Schinus molle**	Peruvian pepper tree
	*Schinus terebinthifolius**	Brazilian pepper tree
Apocynaceae	*Nerium oleander**	oleander
	Plumeria sp.*	frangipani
Asteraceae	*Cotula australis**	Australian brass-buttons
	*Erigeron bonariensis**	flax-leaved horseweed
	Erigeron canadensis	horseweed
	Helianthus annuus	western sunflower
	Heterotheca grandiflora	telegraphweed
	*Lactuca serriola**	wild lettuce
	*Oncosiphon piluliferum**	stinknet
	*Sonchus asper**	prickly sow thistle
	*Taraxacum officinale**	common dandelion
Bignoniaceae	*Tecoma capensis**	Cape honeysuckle
Boraginaceae	*Amsinckia intermedia*	rancher's fiddleneck
	Amsinckia menziesii	Menzies' fiddleneck
Brassicaceae	*Sisymbrium irio**	London rocket
	*Lobularia maritima**	sweet alyssum
Cactaceae	*Echinocereus* sp.*	hedgehog cactus
	*Opuntia ficus-indica**	Indian-fig
Chenopodiaceae	*Chenopodium murale**	nettle-leaf goosefoot
	*Salsola tragus**	Russian thistle
Crassulaceae	*Crassula connata*	pygmy-weed
	*Crassula ovata**	jade plant
Fabaceae	*Melilotus indicus**	Indian sweet clover
Geraniaceae	*Erodium cicutarium**	redstem filaree
Malvaceae	*Malva parviflora**	cheeseweed
Meliaceae	*Melia azaderach**	chinaberry
Moraceae	*Ficus macrocarpa**	Indian laurel
Myrtaceae	*Eucalyptus camaldulensis**	river red gum
Nyctaginaceae	*Bougainvillea* sp.*	bougainvillea
Oleaceae	*Fraxinus uhdei**	Shamel ash
	*Olea europaea**	olive
Plantaginaceae	*Platanus racemosa*	western sycamore
Polygonaceae	*Eriogonum fasciculatum*	California buckwheat
	*Polygonum aviculare**	prostrate knotweed
Proteaceae	*Grevillea robusta**	silky-oak
Rutaceae	*Citrus* sp.*	citrus
Sapindaceae	*Cupaniopsis anacardioides**	carrotwood
	*Koelreuteria paniculata**	goldenrain tree

Appendix B (cont.)
Plant Species Observed

Family	Scientific Name	Common Name
Scrophulariaceae	*Myoporum laetum**	false sandalwood
Simaroubaceae	*Ailanthus altissima**	tree-of-heaven
Solanaceae	*Datura wrightii*	jimsonweed
Strelitziaceae	*Strelitzia reginae**	bird of paradise
Urticaceae	*Urtica dioica*	stinging nettle
Verbenaceae	*Lantana camara**	lantana
Zygophyllaceae	*Tribulus terrestris**	puncturevine
ANGIOSPERMS – MONOCOTS		
Agavaceae	*Agave americana**	century plant
	*Yucca aloifolia**	aloe yucca
Arecaceae	*Brahea armata**	Mexican blue palm
	*Chamaerops humilis**	European fan palm
	*Phoenix dactylifera**	date palm
	*Phoenix roebelenii**	pygmy date palm
	*Syagrus romanzoffiana**	queen palm
	*Washingtonia robusta**	Mexican fan palm
Asparagaceae	*Beaucarnea recurvata**	ponytail palm
Asphodelaceae	*Aloe arborescens**	candelabra aloe
Poaceae	*Avena barbata**	slender oat
	*Bromus diandrus**	common ripgut grass
	*Cynodon dactylifera**	Bermudagrass
	*Hordeum murinum**	hare barley
	*Schismus barbatus**	Mediterranean grass

* Non-native species

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Appendix C

Animal Species Observed or Detected

Appendix C
Animal Species Observed or Detected

Order	Family	Scientific Name	Common Name
Reptiles			
Squamata	Phrynosomatidae	*Sceloporus occidentalis*	western fence lizard
Birds			
Accipitriformes	Accipitridae	*Buteo jamaicensis*	red-tailed hawk
	Cathartidae	*Cathartes aura*	turkey vulture
Apodiformes	Trochilidae	*Calypte anna*	Anna's hummingbird
		Selasphorus sasin	Allen's hummingbird
Caprimulgiformes	Caprimulgidae	*Chordeiles acutipennis*	lesser nighthawk
Charadriiformes	Charadriidae	*Charadrius vociferus*	killdeer
Columbiformes	Columbidae	*Columba livia*	rock pigeon
		Streptopelia decaocto	Eurasian collared-dove
		Zenaida macroura	mourning dove
Falconiformes	Falconidae	*Falco sparverius*	American kestrel
Passeriformes	Aegithalidae	*Psaltriparus minimus*	bushtit
	Corvidae	*Aphelocoma californica*	California scrub-jay
		Corvus brachyrhynchos	American crow
		Corvus corax	common raven
	Fringillidae	*Haemorhous mexicanus*	house finch
		Spinus psaltria	lesser goldfinch
		Spinus tristis	American goldfinch
	Icteridae	*Icterus bullockii*	Bullock's oriole
		Sturnella neglecta	western meadowlark
	Mimidae	*Mimus polyglottos*	northern mockingbird
	Parulidae	*Geothlypis trichas*	common yellowthroat
		Setophaga coronata	yellow-rumped warbler
	Passerellidae	*Melozone crissalis*	California towhee
		Melospiza melodia	song sparrow
		Zonotrichia leucophrys	white-crowned sparrow
	Passeridae	*Passer domesticus*	house sparrow
	Sturnidae	*Sturnus vulgaris*	European starling
	Troglodytidae	*Thryomanes bewickii*	Bewick's Wren
	Turdidae	Sialia mexicana	western bluebird
	Tyrannidae	*Sayornis nigricans*	black phoebe
		Sayornis saya	Say's phoebe
		Tyrannus verticalis	western kingbird
		Tyrannus vociferans	Cassin's kingbird
	Picidae	*Picoides nuttallii*	Nuttall's woodpecker
Mammals			
Lagomorpha	Leporidae	*Sylvilagus audubonii*	desert cottontail
Rodentia	Sciuridae	*Otospermophilus beecheyi*	California ground squirrel

Appendix D

Representative Site Photographs

Photograph 1: View of the rural residential homes in the eastern portion of Project Site 1, facing west.

Photograph 2: View of the rural residential homes in the southeastern portion of Project Site 1, facing north.

Photograph 3: View of the palm nursery that occupies most of the central and southern portions of Project Site 2, facing west.

Photograph 4: View of the plant nursery that is located in the northeastern corner of Project Site 2, facing east.

Note: See Figure 7 for photograph locations.

Source: HELIX 2018

Photograph 5: View of the rural residential homes in the south-western portion of Project Site 3, facing southwest.

Photograph 6: View of developed land (foreground) and disturbed land (background) in the northern portion of Project Site 3, facing southwest.

Photograph 7: View of the eastern portion of Project Site 4, facing north. Laurel Avenue can be seen on the right.

Photograph 8: View of the southwestern portion of Project Site 4, facing northeast. A row of ornamental Indian laurel fig (*Ficus macrocarpa*) trees can be seen in the background.

Note: See Figure 7 for photograph locations.

Source: HELIX 2018

Photograph 9: View of the Phase 1/2 off-site area along Santa Ana Avenue, facing west. Project Site 3 is on the left.

Photograph 10: View of the Phase 1/2 off-site area located along Locust Avenue, facing north. Project Site 2 is on the left and Project Site 3 is on the left.

Photograph 11: View of the Phase 1/2 off-site area along Maple Avenue, facing south. Project Site 2 is on the right.

Photograph 12: View of the Phase 1/2 Area along Linden Avenue, facing north.

Note: See Figure 7 for photograph locations.

Source: HELIX 2018

Appendix E

Delhi Sands Flower-loving Fly Habitat Suitability Assessment Report

BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA

COMMUNITY OF BLOOMINGTON, SAN BERNARDINO COUNTY, CALIFORNIA

Delhi Sands Flower-Loving Fly Habitat Suitability Assessment

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Prepared By:

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Santa Ana, California 92711
Contact: *Thomas J. McGill, Ph.D.*

October 2020
Updated June 2021

BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA

COMMUNITY OF BLOOMINGTON, SAN BERNARDINO COUNTY, CALIFORNIA

Delhi Sands Flower-Loving Fly Habitat Suitability Assessment

The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.

Travis J. McGill
Director/Biologist

Thomas J. McGill, Ph.D.
Managing Director

October 2020
Updated June 2021

Executive Summary

This report contains the findings of a habitat suitability assessment for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*; DSF), a federally endangered species, for the proposed Bloomington Business Park Specific Plan Area, San Bernardino County, California. The purpose of this assessment is to characterize existing site conditions and assess the quality of Delhi sand soils on the project site to determine if they provide suitable habitat for DSF. The habitat suitability assessment was conducted by ELMT Consulting (ELMT) biologist Thomas J. McGill, Ph.D. on October 16, 2020.

The entire survey area has been subject to a variety of anthropogenic disturbances associated with development activities. Due to historical and current land uses, no undisturbed native plant communities or natural communities of special concern were observed within the survey area. The survey area consists of two (2) land cover types that would be classified as disturbed and developed.

The majority of the Specific Plan Area has been mapped as supporting Tujunga loamy sand (TuB) and does not provide suitable habitat for DSF. Only the southwest portion of the Specific Plan Area has been mapped by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey as supporting Delhi sand soils. The area of Bloomington where the Specific Plan is located has historically been a rural residential area that has supported agricultural and farming activities for several decades. This has resulted in the Delhi Sand soils becoming mixed with Tujunga loamy soils. The large number of residential developments in this area impede the wind and the Delhi sand soils on the undeveloped portion of the specific plant area are no longer subject to aeolian processes.

Open sandy dunes with sparse vegetative cover were not observed within the Specific Plan Area. Unconsolidated soils are present in some areas beneath the hardened surface layer but are mixed with Tujunga loamy sands. High/good quality Delhi fine sands are absent from the Specific Plan Areas due to prolonged anthropogenic disturbance, including the disruption of the aeolian process in association with surrounding developments. In addition, the import of gravel and other alluvial materials combined with the disking of crops back into the soils for decades has degraded Delhi Sand soil quality, especially as it pertains to DSF.

Based on the habitat characteristics documented in the specific plan areas, Dr. McGill rated the areas as unsuitable for DSF with a habitat quality rating of 1. Two offsite corridors, designated for infrastructure improvements needed to serve the proposed developments with water, sewer and storm drain lines, were also assessed. Most of the pipeline routes occur in street alignments and do not pass through open, undeveloped habitat. One short segment along Jurupa Avenue between Alder Avenue and Laurel Avenue will be installed in an open area mapped as Delhi Sand soils. However, the Delhi sand soils in this short segment were either consolidated due to being mixing with Tujunga sandy loam soils or had been contaminated with organic matter from decades of disking crops back into soil. The short segment was rated as very low-quality with a rating of 2. Clean, unconsolidated Delhi Sand soils, needed by DSF, are not present.

Given the unsuitable and very low quality ratings of Delhi sand soils, the general lack of DSF sightings in this area, the recognized adverse changes in soil chemistry of Delhi sand soils in areas subjected to previous development and anthropogenic activities, it is highly unlikely that the Specific Plan Area is occupied or that the Specific Plan Area can become occupied in the future.

Table of Contents

Exhibits

Appendix

Section 1 Introduction

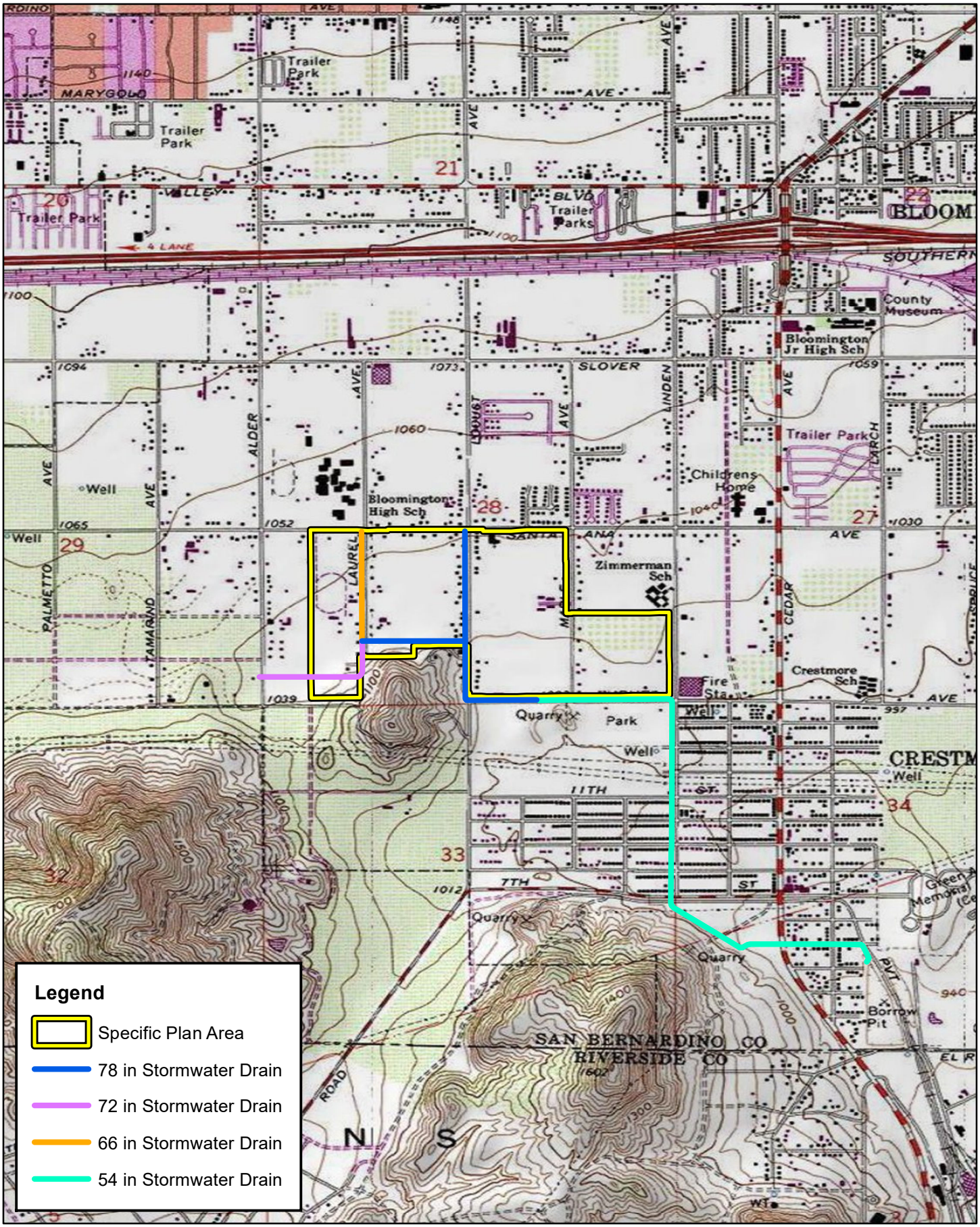
ELMT Consulting (ELMT) prepared this Delhi Sands Flower-loving Fly (DSF) Habitat Suitability Assessment for the proposed Bloomington Business Park Specific Plan Area (project site or site) located in the Community of Bloomington, San Bernardino County, California. The Specific Plan boundary and undeveloped areas immediately adjacent to the Specific Plan (survey area) was inventoried and evaluated the condition of the habitat on October 16, 2020. This assessment was conducted to determine if the soils on the undeveloped portion of the project site support clean Delhi sand soils capable of providing suitable habitat for DSF.

1.1 PROJECT LOCATION

The project site is generally located north of State Route 60, south of Interstate 10, west of Interstate 215 and east of Interstate 15 in the Community of Bloomington, San Bernardino County, California. The site is depicted on the Fontana quadrangle of the United States Geological Survey's (USGS) 7.5-minute map series within Section 28 of Township 1 South, Range 5 West (Exhibit 1, *Site Vicinity*). Specifically, the Specific Plan is bound by Santa Ana Avenue to the north, Linden Avenue to the east, Jurupa Avenue to the south, and Alder Avenue to the west (Exhibit 2, *Project Site*)

1.2 PROJECT DESCRIPTION

The Bloomington Business Park consist of four initial planning areas and two offsite infrastructure corridors for sewer, water and storm drains.



BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA
DELHI SANDS FLOWER-LOVIGN FLY SUITABILITY ASSESSMENT

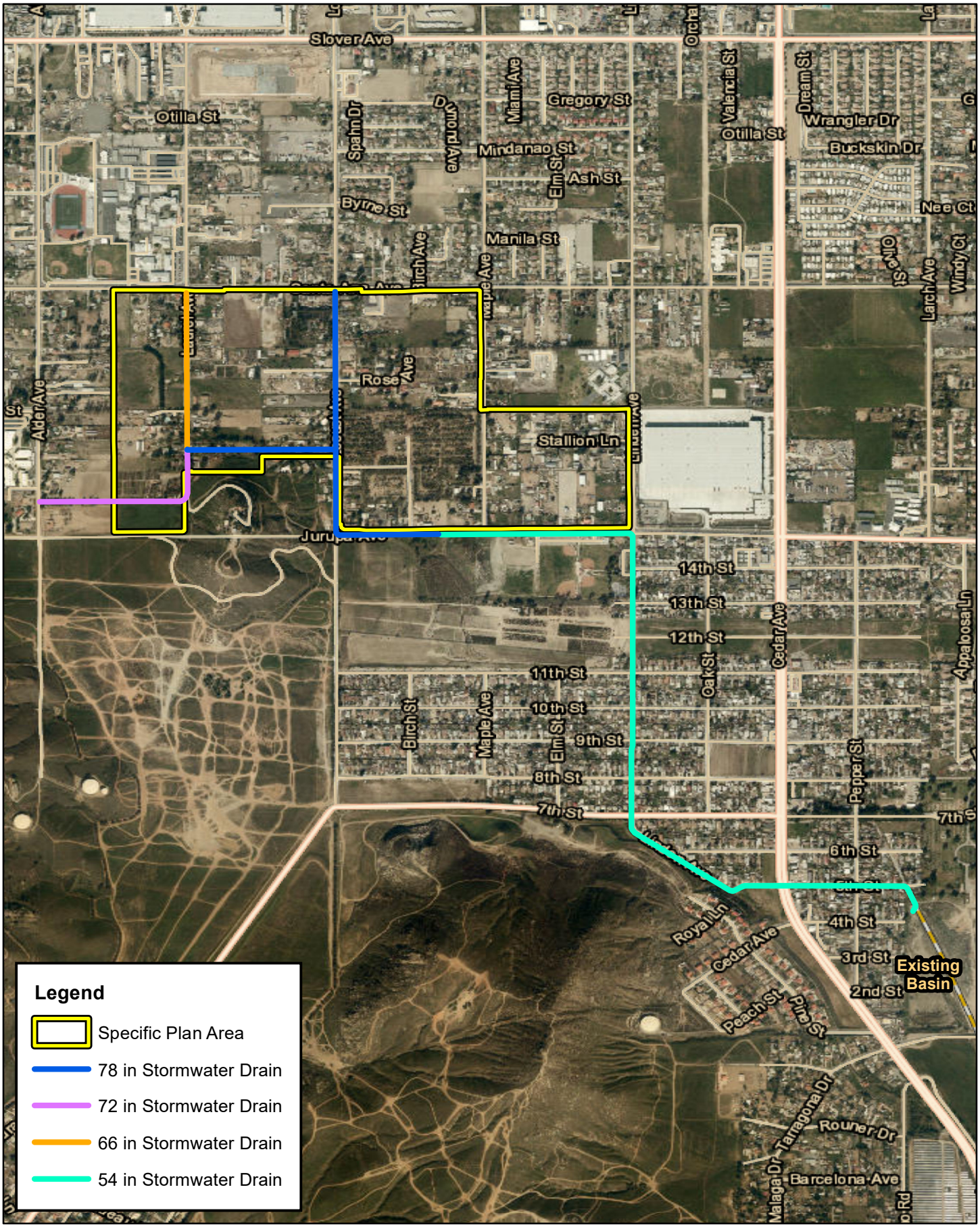
ELMT CONSULTING

0 1,000 2,000 4,000 Feet

Source: USA Topographic Map, San Bernardino County

Site Vicinity

Exhibit 1



BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA
DELHI SANDS FLOWER-LOVIGN FLY SUITABILITY ASSESSMENT

Project Site

ELMT CONSULTING

Source: ESRI Aerial Imagery, San Bernardino County

Exhibit 2

Section 2 Background

It has been generally acknowledged that DSF occur in Delhi sand soils, particularly clean dune formations composed of Aeolian sands. Conversely, soils and sands deposited by fluvial processes from the surrounding alluvial fans do not support DSF. These alluvial soils are composed of coarse sands, cobble and gravel (Tujunga soils) or coarse sands, silts and clays (Cieneba soils). In this part of Riverside County, the separation of soil types has been lost due to the mixing and cross contamination from years of agricultural activities, development, and other man-made disturbances such as surface mining/storage activities.

Depending on the extent of mixing and contamination, some areas formally mapped in 1970 as Delhi sand soils no longer have potential to support DSF populations. Conversely, some areas formally mapped as Cieneba soils may now be composed of Delhi sand soils and have potential to support DSF. Six DSF experts (Ken Osborne, Greg Ballmen, Rudy Matoni, Karen Cleary-Rose, Alison Anderson and Tom McGill) used this criterion, the relative abundance of clean Delhi sand soils versus the amount of Cienba or other alluvial soils, to rate the suitability of the habitat to support DSF (Michael Brandman Associates, 2003). Soils high in gravel and alluvial materials, or high in fine materials such as silts and clays, were rated low, while soils that appear to be high in Aeolian deposited sands were rated high. This qualitative assessment of DSF habitat was further refined by considering the relative degree of soil compaction. Alluvial soils have a tendency to solidify to a hard surface pavement, while Aeolian soils are easier to penetrate and provide good substrate for DSF.

Although it has been common to attribute the presence of the four common plant species California buckwheat (*Eriogonum fasciculatum*), California croton (*Croton californicus*), deer weed (*Acmispon glaber*), and telegraph weed (*Heterotheca grandiflora*) as indicators of habitat suitability, for the assessment, vegetation composition was not given much weight in making this habitat evaluation. These dominant plant species, and plant species composition of habitats, may not be directly relevant to larval development (due to likely predatory or parasitic habitat of DSF larvae) (Osborne, et al. 2003). The known immature life histories of the nine asiloid fly families, including that to which the DSF is classified, are primarily predatory and/or parasitic on other invertebrate species (mainly insects) and the presence or absence of plant species appears not to be relevant to the life history of these flies.

Land with suitable DSF habitat include those areas with open, undisturbed Delhi Series soils that have not been permanently altered by residential, commercial, or industrial development, or other human actions. Areas known to contain Delhi sand soils and/or to be occupied by DSF have been divided by USFWS into three recovery units (Colton, Jurupa, and Ontario Recovery Units (USFWS, 1997)). These recovery units are defined as large geographic areas based on geographic proximity, similarity of habitat, and potential genetic exchange. Within these three recovery units, are areas that have been previously protected by conservation easements:

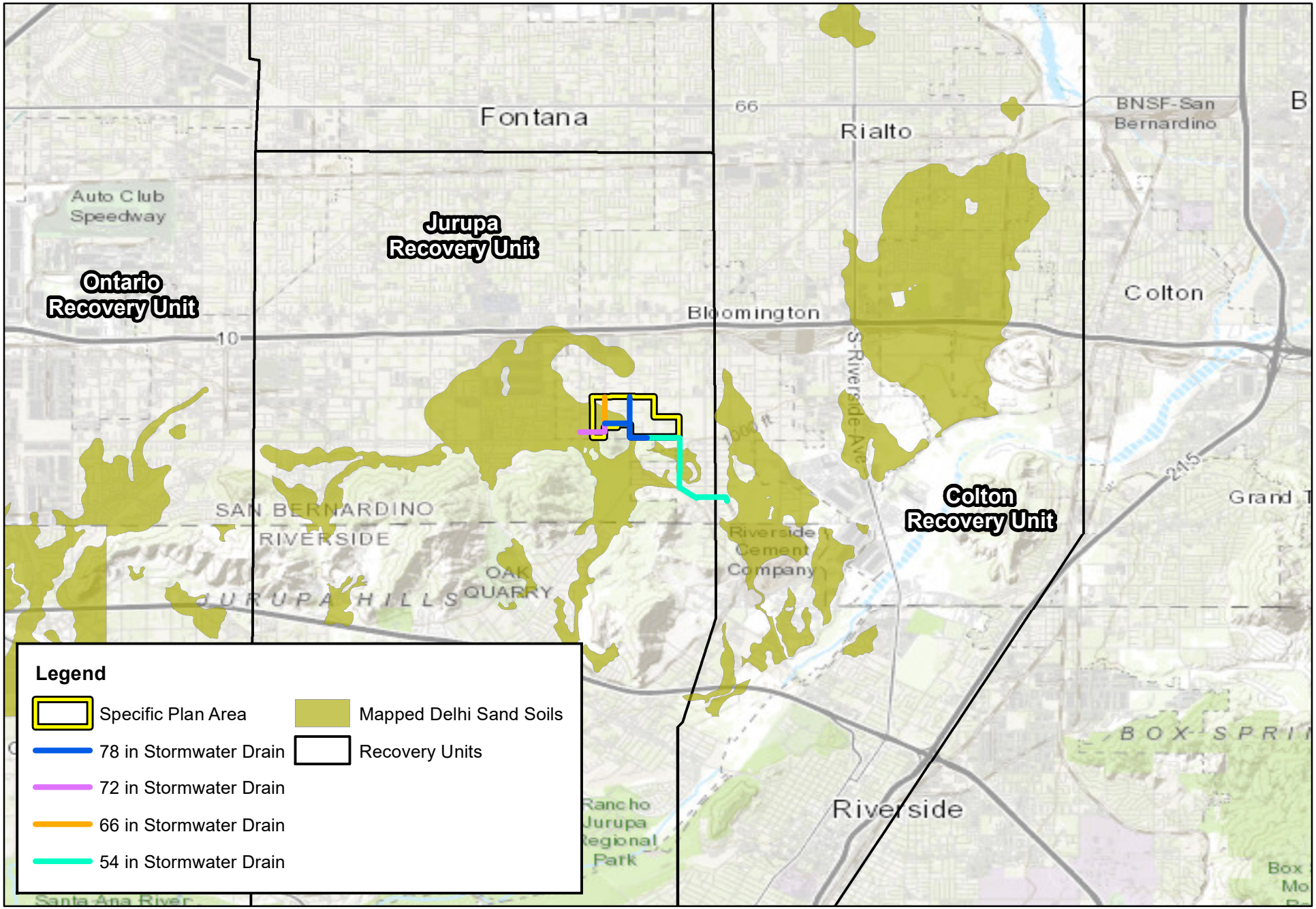
- Colton: Eight sites have been permanently protected in the Colton recovery unit. In the USFWS five-year review of the DSF Recovery Plan (USFWS, 2008) the USFWS acknowledge that 8 sites had been identified as supporting DSF within the Colton Recovery Unit. These sites have

been permanently protected in the Colton Recovery Unit. Within the Colton Recovery unit, the Slover/Pepper population is partially protected through the establishment of a 7.5-acre Colton Transmission Facility Reserve at the eastern terminus of Santa Ana Ave in Colton and 150-acre Conservation Bank. There are about 160-acres of undeveloped DSF habitat contiguous with these conservation areas (USFWS, 2008).

- Jurupa: Approximately 21 ha (52-acres) of DSF habitat have been protected for this population along the Jurupa Hills. Approximately 12 ha (30-aces) are protected under a conservation easement within Riverside County ("I-15/Galena" Biological Opinion; FWS-WRIV-774). An additional 9 ha (22-acres) will be placed under a conservation easement and managed in San Bernardino County as a result of interagency consultation between the USFWS and the U. S. Army Corps of Engineers (Corps) ("Fontana Business Center" Biological Opinion; FWS-SB-1788.9), in accordance with section 7 of the Endangered Species Act.

- Ontario: In 2000, 4 ha (10-acres) of DSF habitat near the intersection of Greystone and Milliken Avenues in the City of Ontario, San Bernardino County, were acquired for conservation and an additional 1.2 ha (3-acres) of contiguous habitat was avoided, but not permanently conserved. At that time, these properties were surrounded by undeveloped land with some characteristics of DSF habitat, and the USFWS anticipated that a larger DSF reserve would be created that could sustain a robust DSF population. However, most of the surrounding property has subsequently been developed for commercial or industrial uses, and it is unlikely that the existing population can be sustained over the long term.

The project site is located within the Jurupa Recovery Unit, within, approximately 2.8 miles northeast of the previously conserved habitat protected under a conservation easement, and approximately 2 miles southwest of the Colton Dunes Conservation Bank (Exhibit 3, *DSF Recovery Units*).



BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA
DELHI SANDS FLOWER-LOVIGN FLY SUITABILITY ASSESSMENT

DSF Recovery Units

ELMT CONSULTING

0 1.25 2.5 5 Miles

Source: ESRI World Topographic Map, San Bernardino County

Exhibit 3

Section 3 Methodology

The criteria discussed in detail below were used to rate the relative abundance of clean Delhi sand soils verses the amount of Cieneba, Tujunga, or other alluvial soils, to rate the suitability of the habitat to support DSF. Soils high in gravel and alluvial materials, or high in fine materials such as silts and clays, were rated low, while soils that appear to be high in Aeolian deposited sands were rated high. This qualitative assessment of DSF habitat was further refined by considering the relative degree of soil compaction. Alluvial soils have a tendency to solidify to a hard surface pavement, while Aeolian soils are easier to penetrate and provide good substrate for DSF.

3.1 SOIL

On-site and adjoining soils were researched prior to the field visit using the United States Department of Agricultural (USDA) Natural Resources Conservation Survey (NRCS) Soil Survey for San Bernardino County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes the project site has undergone. In particular, the USDA NRCS was reviewed to determine the location of mapped Delhi sand soils on or within the immediate vicinity of the project site.

Based on the USDA NRCS Soil Survey, the survey area is historically underlain by Cieneba sandy loam (9 to 15 percent slopes), Cieneba-Rock outcrop complex (30 to 50 percent slopes), Delhi fine sand, and Tujunga loamy sand (0 to 5 percent slopes). Refer to Exhibit 4, *Soils*.

3.2 HABITAT SUITABILITY ASSESSMENT

ELMT biologist Thomas J. McGill, Ph.D. surveyed the project site on October 16, 2020. The habitat suitability assessment consisted of a visual and tactile inspection of all areas on the project site that contain Delhi sand soils. Since the southwest corner of the project site was mapped as supporting Delhi sand soils, the southwest corner of the site was evaluated for the quality or purity and for its potential to support DSF. Areas were assigned one or more ratings ranging between 1 and 5, with 5 being the best quality and most suitable habitat:

1. Soils dominated by heavy deposits of alluvial material including coarse sands and gravels with little or no Delhi sand soils and evidence of soil compaction. Developed areas, non-Delhi sands soils with high clay, silt, and/or gravel content. Delhi sands extensively and deeply covered by dumping of exotic soils, rubble, trash or organic debris. *Unsuitable.*

2. Delhi sand soils are present, but the soil characteristics include a predominance of alluvial materials (Tujunga Soils and Hilmar loamy sand), or predominance of other foreign contamination. Sever and frequent disturbance (such as maintenance yard or high use roadbed). *Very Low Quality*.

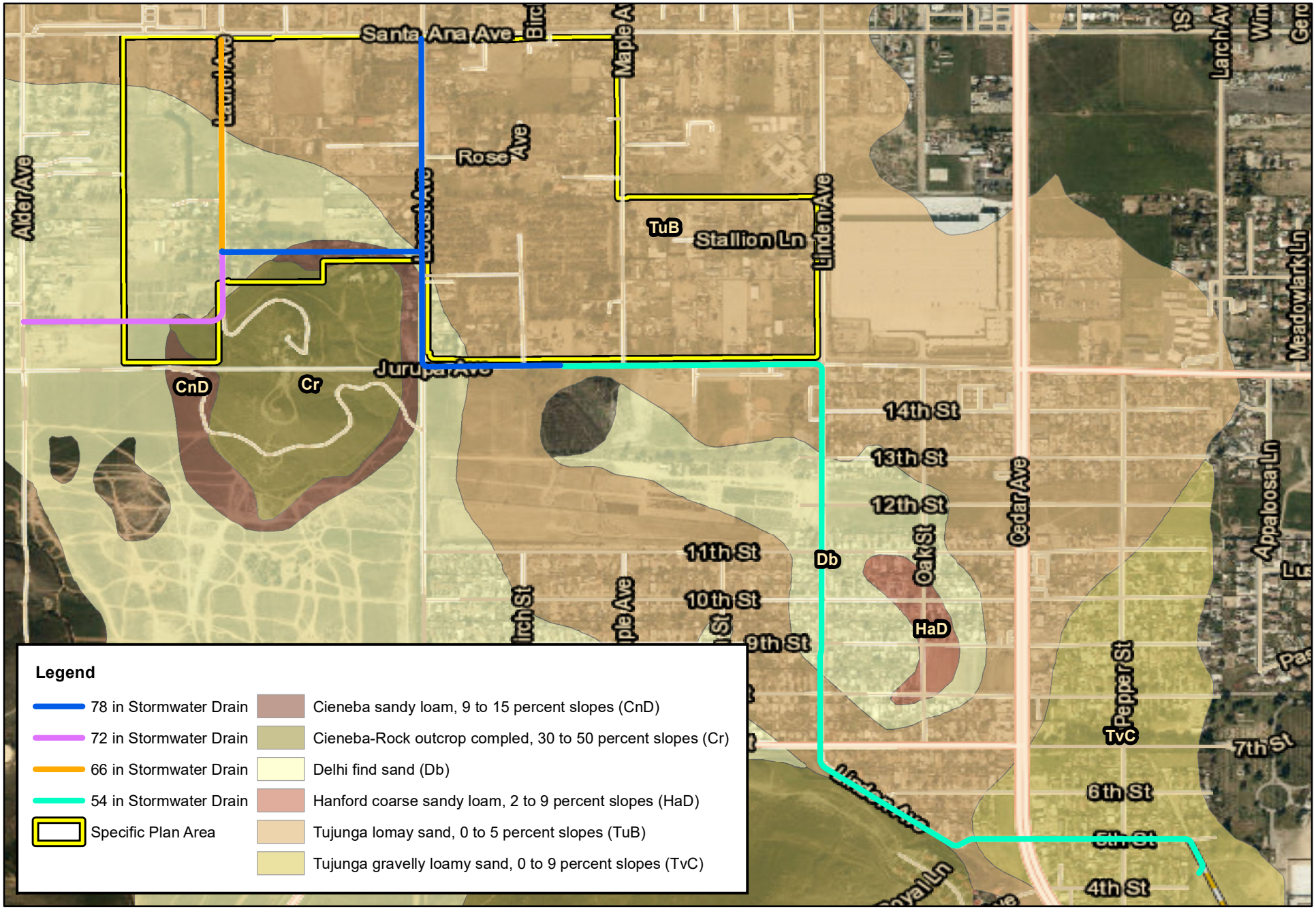
3. Although not clean, sufficient Delhi sand soils are present to prevent soil compaction. Moderately contaminated Delhi sands. Delhi sands with moderate to high disturbance (such as

annual disking). Sufficient Delhi sands are present to prevent soil compaction (related to contamination by foreign soils). Some sandy soils exposed on the surface due to fossorial animal activity. *Low Quality*.

4. Abundant clean Delhi sand soils with little or no foreign soils (such as alluvial material, Tujunga soils or Hilmar loamy sand) present. Moderate abundance of exposed sands on the soil surface. Low vegetative cover. Evidence of moderate degree of fossorial animal activity by vertebrates and invertebrates. May represent high quality habitat with mild or superficial disturbance. *Moderate Quality*.

5. Sand dune habitat with clean Delhi sand soils. High abundance of exposed sands on the soil surface. Low vegetative cover. Evidence (soil surface often gives under foot) of high degree of fossorial animal activity by vertebrates and invertebrates. Sand associated plant and arthropod species may be abundant. *High Quality*.

It should be noted that habitat qualities often vary spatially within a site so that conditions on a site fall within a range of qualities. Further, overall habitat quality is affected by the connectivity of the site to other areas with suitable DSF habitat and the overall habitat value of the site.



BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA
DELHI SANDS FLOWER-LOVIGN FLY SUITABILITY ASSESSMENT

Soils

ELMT CONSULTING

0 500 1,000 2,000 Feet

Source: ESRI Aerial Imagery, Soil Survey Geographic Database, San Bernardino County

Exhibit 4

Section 4 Results

4.1 EXISTING CONDITIONS

The majority of the survey area is developed with residential/rural residential developments. Several farming and agricultural activities including horse and livestock corrals are found in association with the rural residences. The entire survey area has been subject to a variety of anthropogenic disturbances associated with development activities. Due to historical and current land uses, no undisturbed native plant communities or natural communities of special concern were observed within the survey area. These disturbances have eliminated the natural plant communities that once occurred on and surrounding the survey area. The survey area consists of two (2) land cover types that would be classified as disturbed and developed. Developed areas generally encompass all building/structures, and paved/impervious surfaces.

4.2 HABITAT SUITABILITY ASSESSMENT

Based on the NRCS USDA Web Soil Survey, only the southwest portion of the survey area is mapped as Delhi fine sand (refer to Exhibit 4, *Soils*). Soils observed throughout the survey area are generally compacted and did not give way underfoot during the survey. Open sandy dunes with sparse vegetative cover were not observed within the survey area. Unconsolidated soils are present in some areas beneath the hardened surface layer, and some areas contain loose soils at the surface in association with fossorial animal activity (mostly rodent burrows and ant mounds) but was not commonly observed.

High quality Delhi fine sands are absent from the survey area due to prolonged anthropogenic disturbance, including the disruption of the aeolian process in association with surrounding developments and associated agricultural areas. In addition, the introduction of gravel and other alluvial materials observed throughout most of the undeveloped areas have degraded soil quality, especially as it pertains to DSF. Native plants were typically not found in open fields within the survey area which were generally disked for weed control and fire abatement.

The Specific Plan Area consists for four (4) Planning Areas. The suitability of the habitat within each Planning Area to support DSF are described in detail below (Exhibit 5, *DSF Habitat Suitability*):

- Planning Area 1 is a 17-acre site located in the southeast corner of the Specific Plan Area. Soils in the area are limited to Tujunga loamy sand and does not support Delhi Sand soils. Most of the Planning Area is in either residential development or support agricultural activities. Planning Area 1 is unsuitable for DSF.

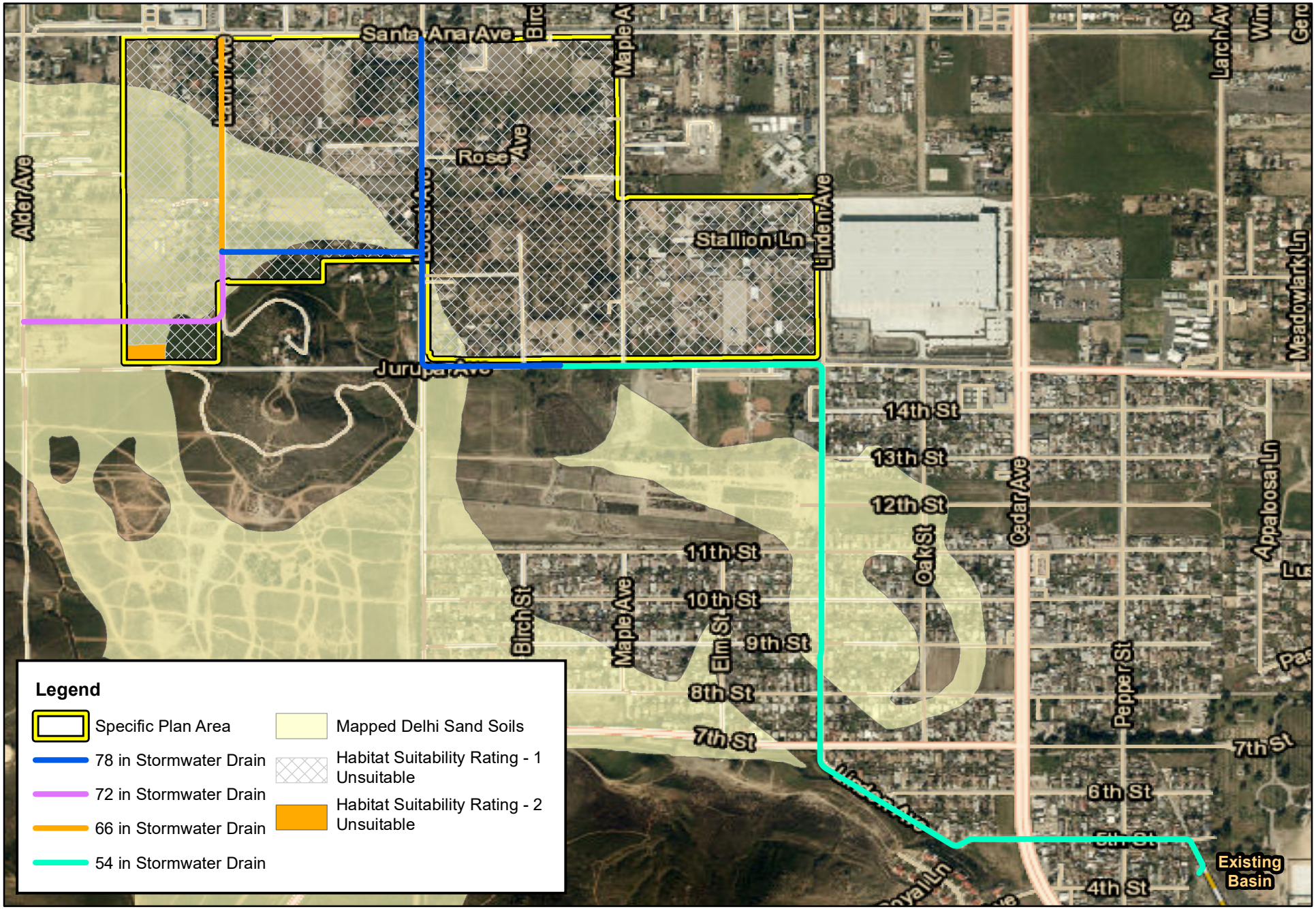
- Planning Area 2 is a 57.6-acre site located west of Planning Area 1 in the eastern half of the Specific Plan Area. Approximately fifty-five (55) acres of Planning Area 2 support Tujunga loamy, with only the southwest corner being mapped as Delhi sand soil. The area that has been mapped as Delhi sand soil on the southwest corner of Planning Area 2 is currently occupied by a fully landscaped residential development that precludes the availability of open Delhi sand soil. Planning Area 2 is unsuitable for DSF.

- Planning Area 3 is a 27.8-acre site west of Planning Area 2 in the western half of the Specific Plan Area. The northeastern two thirds of this area are mapped as Tujunga loamy sand and does not support Delhi Sand soils. The southwest corner is mapped as Delhi sand soils, but the areas has been severely contaminated with the Tujunga loamy sand soils or imported exotic soils. The southwest corner of Planning Area 3 no longer provides clean, unconsolidated Delhi sand soils, as this area has been heavily disturbed by onsite residential development. Planning Area 3 is unsuitable for DSF.

- Planning Area 4 is a 9.55-acre site along the western boundary of the Specific Plan Area. The entire area is mapped as Delhi sand soils. The site has been used as a rural residential development that has been heavily used for boarding horses and other livestock which contributes a large volume of organic materials into the soil. In addition, the Delhi sand soils have been further contaminated with the import of exotic soils, gravel and cobble that are distributed across the area. The disturbance of the upper layer of soils by decades of use by horses and livestock, combined with the continual contamination with organic materials and imported exotic soils has rendered the Delhi sand soils unsuitable for DSF. Planning Area 4 is unsuitable for DSF.

Additionally, two corridors were designated for offsite infrastructure improvements including development for water, sewer and storm drains. Most of the western corridor and all of the eastern corridor occur in street alignments and do not pass through open, undeveloped habitat. A short segment of the western corridor along Jurupa Avenue, between Alder and Laurel Avenues, passes through the southern edge of a rural residence that is maintained weed free through continual grading and an agricultural field that has been farmed for several decades, including grading of the site between crops. As a result, this area of open Delhi Sands has been exposed to continual disturbance for several decades and no longer supports clean Delhi Sand soils needed by DSF. Numerous focused surveys for DSF have been conducted on an adjacent project site, 200 yards to the south, over the last 20 years and have all been negative. There are no known extant DSF populations in the immediate vicinity. Without extant DSF populations in the vicinity, it is highly unlikely that this area of very low-quality Delhi Sand soils is occupied.

The area is rated as very low-quality habitat, with a habitat suitability rating of 2 and is highly unlikely to support DSF.



ELMT CONSULTING

0 500 1,000 2,000 Feet

Source: ESRI Aerial Imagery, San Bernardino County

BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA
DELHI SANDS FLOWER-LOVIGN FLY SUITABILITY ASSESSMENT

DSF Habitat Suitability

Exhibit 5

Section 5 Conclusion and Recommendations

Dr. McGill has been working with in the DSF ecosystem, including the Colton Dunes Conservation Bank and the West Valley Conservation Area in the City of Colton, for over 25 years. Based on his twenty-five years of experience with DSF and occupied DSF ecosystems, the information provided in this report, and information based on the referenced DSF habitat suitability scale (Ballmer, Osborne, McGill), Dr. McGill rated the Specific Plan areas as being unsuitable for DSF with a habitat suitability rating of 1. Additionally, he assessed the suitability of habitat within the western offsite infrastructure corridor between Alder and Laurel Avenues that is mapped as open Delhi Sand soils. The Delhi Sand soils in this short corridor was either consolidated due to the mixing with Tujunga sandy loam soils or had been contaminated with organic matter from decades of disking crops back into soil. The area was rated as very low-quality with a rating of 2. There are no known extant DSF populations in the immediate vicinity. It is improbable that a dispersing DSF individual would temporarily occupy the undeveloped areas within the Specific Plan. Without extant DSF populations in the vicinity, it is highly unlikely that this area of very low-quality Delhi Sand soils is occupied.

Given the unsuitable and very low quality rating of Delhi sand soils, the general lack of DSF sightings in this area, the recognized adverse changes in soil chemistry of Delhi sand soils in areas subjected to previous development and anthropogenic activities, it is highly unlikely that the Specific Plan Area is occupied or that the Specific Plan Area can become occupied in the near future.

Section 6 References

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Appendix A Site Photographs

Photograph 1: Mixed/contaminated soils with Planning Area 4.

Photograph 2: View of Planning Area 4.

Photograph 3: Mixed/contaminated soils with the undeveloped areas of Planning Area 4.

Photograph 4: Strom drain alignment in existing road.

Photograph 5: Storm drain alignment within existing road.

Photograph 6: Soils mixed with Tujunga soils.

Photograph 7: Soil mixed with loose gravel

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Appendix F

Burrowing Owl Habitat Assessment Report

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619.462.0552 **fax**
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July 26, 2021 03922.00001.001

Mr. Timothy Howard
Howard Industrial Partners
1944 North Tustin Street, Suite 112
Orange, CA 92865

Subject: Burrowing Owl (*Athene cunicularia*) Habitat Assessment Report for the Bloomington Business Park Specific Plan

Dear Mr. Howard:

This letter report presents the results of the burrowing owl (*Athene cunicularia*; BUOW) habitat assessments conducted by HELIX Environmental Planning, Inc. (HELIX) for the Bloomington Business Park Specific Plan (Specific Plan; project). The habitat assessments were conducted within Project Sites 1 and 3 as well as the Phase 1/2 off-site areas within and adjacent to the Specific Plan Area (Survey Areas). The Survey Areas are located in the community of Bloomington in unincorporated San Bernardino County, California. The habitat assessments were conducted in accordance with the California Department of Fish and Wildlife (CDFW; previously California Department of Fish and Game [CDFG]) Staff Report on Burrowing Owl Mitigation (CDFG 2012). This letter report describes the methods used to perform the survey and the survey results.

SURVEY AREA LOCATIONS

The Survey Areas total approximately 96 acres and are approximately 1.3 miles to the south of Interstate 10 and 3.3 miles to the north of State Route 60 (Figure 1, *Regional Location*). The Survey Areas are within Section 28 of Township 1 South, Range 5 West of the U.S. Geological Survey (USGS) 7.5-minute Fontana quadrangle map (Figure 2, *USGS Topography*). Survey Areas 1 and 2 are located north of Jurupa Avenue, west of Linden Avenue, south of Santa Ana Avenue, and east of Alder Lane (Figure 3, *Aerial Photograph*). Survey Area 3 extends south along Linden Avenue from Jurupa Avenue in the north to its terminus in the south and along 5th Street from Linden Avenue in the west to its terminus to the east (Figure 3).

SURVEY AREA DESCRIPTIONS

Project Site 1

Project Site 1 comprises rural residential homes. Elevations on Project Site 1 range from approximately 1,005 feet above mean sea level (AMSL) near the southeastern boundary of the site to 1,021 feet AMSL near the northwestern corner. The entire site is mapped as Tujunga loamy sand (9 to 15 percent; Natural Resources Conservation Service [NRCS] 2021).

Project Site 3

Project Site 3 is mostly developed and consists of rural residential housing, an active nursery, and vacant housing lots. Elevations on Project Site 3 range from 1,029 feet AMSL near the southeastern corner of the project site to approximately 1,048 feet AMSL near the northwestern corner. Soils on the site are mostly mapped as Tujunga loamy sand (0 to 5 percent slopes) with the southwestern corner mapped as Delhi fine sands (0 to 5 percent slopes; NRCS 2021).

Phase 1/2 Off-Site Areas

Phase 1/2 off-site areas include areas that require infrastructure improvements to support Project Sites 1 through 4. Phase 1/2 off-site areas consist almost entirely of existing development, although some small portions along Locust Avenue and Maple Avenue overlap with adjacent nurseries in the existing right-of-way. The most southeastern end of the off-site area (south of 5th Street) extends into a small area of disturbed California buckwheat scrub. Elevations range from approximately 924 feet AMSL south of 5th Street to 1,043 feet AMSL at the northern end of Maple Avenue. The majority of the Phase 1/2 off-site areas are mapped as Tujunga loamy sand (9 to 15 percent), although the southern portion of Laurel Avenue and Locust Avenue, and the central portion of Linden Avenue are mapped as Delhi fine sands (NRCS 2021). Fifth Street is mostly mapped as Tujunga gravelly loamy sand (0 to 9 percent slopes).

METHODS

The habitat assessments were conducted according to the CDFW BUOW survey guidelines (CDFG 2012). The CDFW BUOW survey guidelines are described in further detail below.

Prior to conducting the habitat assessment, HELIX consulted the California Natural Diversity Database (CNDDB) to determine the nearest BUOW occurrence (CDFW 2021). Habitat assessments were conducted on Project Site 1 (south)[1] and Phase 1/2 off-site areas (east)[2] by HELIX Biologist Daniel Torres on April 10, 2020 (Survey Area 1); Project Site 1 (north),[3] Project Site 3 and Phase 1/2 off-site areas (west)[4] by Mr. Torres on January 20, 2021 (Survey Area 2); and Phase 1/2 off-site areas (southeast)[5] by HELIX Biologist Matthew Dimson on June 16, 2021 (Survey Area 3; Table 1, *Survey Information*; Figure 3). A focused burrow survey was conducted concurrently with each habitat assessment. All suitable

[1] Project Site 1 (south) covers the southern half of Project Site 1.
[2] Phase 1/2 Off-site Areas (east) covers off-site areas east of Locust Avenue and north of Jurupa Avenue.
[3] Project Site 1 (north) covers the northern half of Project Site 1.
[4] Phase 1/2 Off-site Areas (west) covers off-site areas west of Locust Avenue.
[5] Phase 1/2 Off-site Areas (southeast) covers off-site areas east of Maple Avenue and south of Jurupa Avenue.

burrows (i.e., greater than 11 centimeters [cm] in height and width and greater than 150 cm in depth) and burrow surrogates were recorded using a handheld Global Positioning System unit, if present.

Table 1
SURVEY INFORMATION

Survey Area	Survey Date	Biologist	Start/Stop Time	Start/Stop Weather Conditions	Survey Results
Survey Area 1	04/10/20	Daniel Torres	0845 - 1000	51°F, wind 0-1 mph, 100% clouds 53°F, wind 0-1 mph, 100% clouds	The majority of Survey Area 1 did not support suitable habitat. Some areas of potentially suitable habitat were present within off-site areas along Locust Avenue and Jurupa Avenue; however, no suitable burrows or burrow surrogates were observed.
Survey Area 2	01/20/21	Daniel Torres	0740-1200	63°F, wind 10-13 mph, 40% clouds 67°F, wind 10-13 mph, 10% clouds	The majority of Survey Area 2 did not support suitable habitat, burrows, or burrow surrogates. Some areas of potentially suitable habitat were identified on Project Site 3; however, no suitable burrows or burrow surrogates were observed.
Survey Area 3	06/16/21	Matthew Dimson	0615-0825	70°F, wind 0-1 mph, 0% clouds 76°F, wind 0-1 mph, 0% clouds	The majority of Survey Area 3 did not support suitable habitat. Small areas of potentially suitable habitat were present south of 5th Street; however, no suitable burrows or burrow surrogates were observed.

The assessments were conducted in the Survey Areas, and within a 150-meter (approximately 500-foot) buffer zone around the periphery of each Survey Area. The biologists walked transects spaced no greater than 20 meters apart (approximately 65 feet) to allow for 100 percent visual coverage of all suitable habitat within the Survey Areas (Figure 4, *Transect Locations*). Inaccessible areas of the Survey Areas were visually assessed using binoculars. The Survey Areas were slowly walked and assessed for suitable BUOW habitat, including:

- disturbed low-growing vegetation within grassland and shrublands (less than 30 percent canopy cover);
- gently rolling or level terrain;
- areas with abundant small mammal burrows, especially California ground squirrel (*Otospermophilus beecheyi*) burrows;
- fence posts, rocks, or other low perching locations; and
- man-made structures, such as earthen berms, debris piles, and cement culverts.

If found, potential burrows were checked for signs of recent owl occupation. Signs of occupation include:

- pellets/casting (regurgitate fur, bones, and/or insect parts);
- white wash (excrement); and/or
- feathers.

RESULTS

No BUOW records were found to occur on or within the Survey Areas during the literature review. The nearest BUOW record in CNDDB was observed in 2004, approximately 800 feet to the west of Project Site 3 (CDFW 2021). The record notes that BUOW in this location was possibly extirpated due to development in the area. Based on aerial review, this area now consists of a residential development (Google Earth 2021). A BUOW was recorded on the planned West Valley Logistics Center project site in 2017, approximately 0.15 miles west of the intersection of Locust Avenue and 10th Street (Michael Baker International 2017).

Potentially suitable BUOW habitat was observed within the Survey Areas, including low-growing vegetation within areas that support non-native vegetation and disturbed areas associated with vacant residential lots and animal pens. However, no suitable burrows or burrow surrogates were observed within the Survey Areas. Therefore, focused BUOW surveys are not required. Site photographs ae included as Attachment A, *Representative Site Photographs*.

CONCLUSION

No BUOW records were found to occur within the Survey Areas during the literature review, however records do occur within 800 feet of the Survey Areas. Focused BUOW surveys are not required for the three Survey Areas since no suitable burrows or burrow surrogates were observed. HELIX conducted focused surveys in 2018 and 2021 for other portions within the Specific Plan Area, which were negative.

Since existing conditions may change between this survey and construction, a take avoidance (pre-construction) survey must be conducted within all three Survey Areas in accordance with CDFW Staff Report on Burrowing Owl Mitigation (2012). The pre-construction survey must be conducted within 14 days prior to construction activities (i.e., demolition, earthwork, clearing, grubbing, etc.). The survey is necessary to confirm that site conditions have not changed prior to construction. If construction activities are delayed more than 14 days after the survey has been completed, an updated pre-construction survey must be conducted.

If you have any questions regarding the information presented in this letter report, please contact Ezekiel Cooley at EzekielC@helixepi.com.

Sincerely,

Daniel Torres	Matthew Dimson	Ezekiel Cooley
Biologist	Biologist	Senior Biology Project Manager

Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: Transect Locations
Attachment A: Representative Site Photographs

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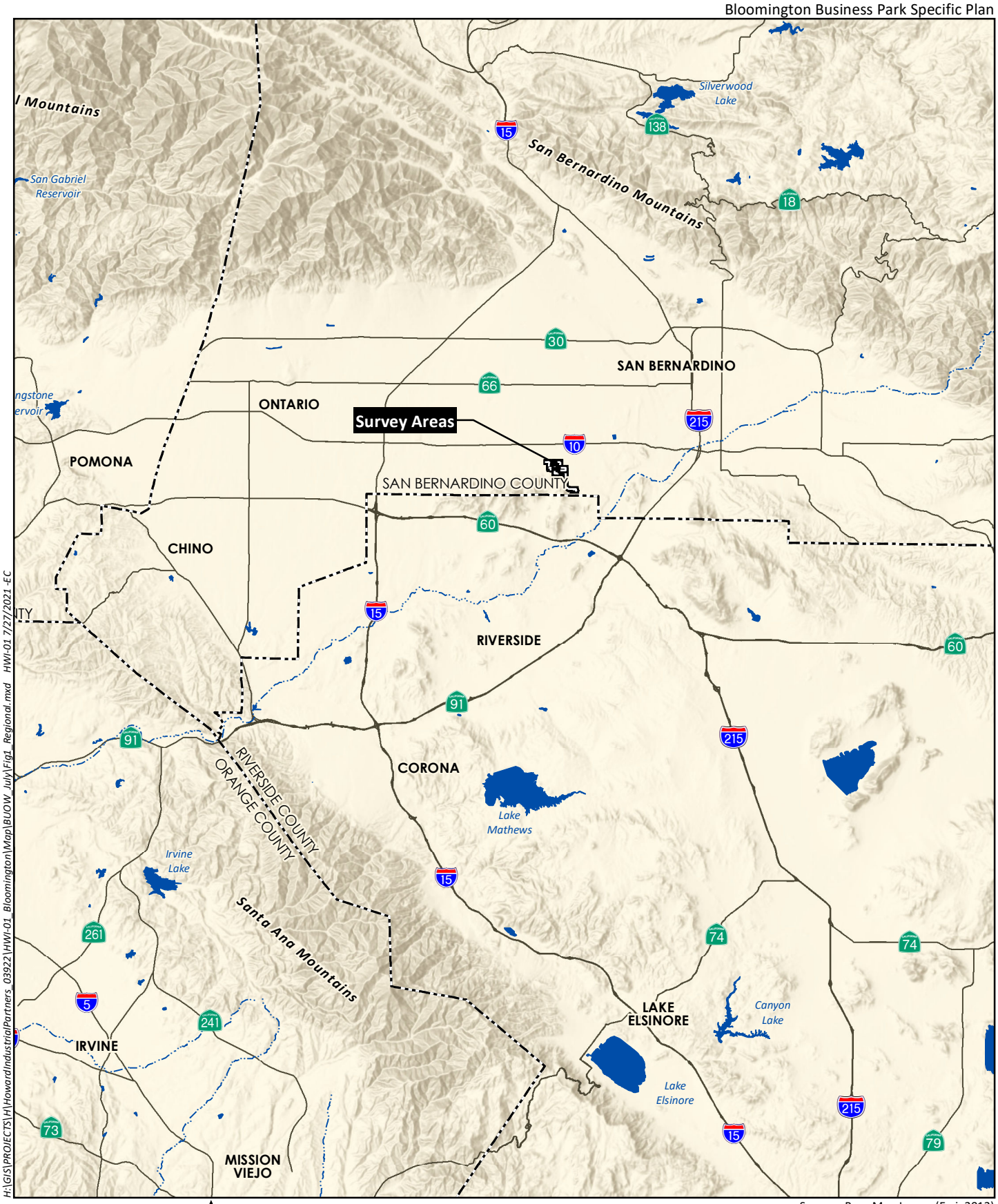

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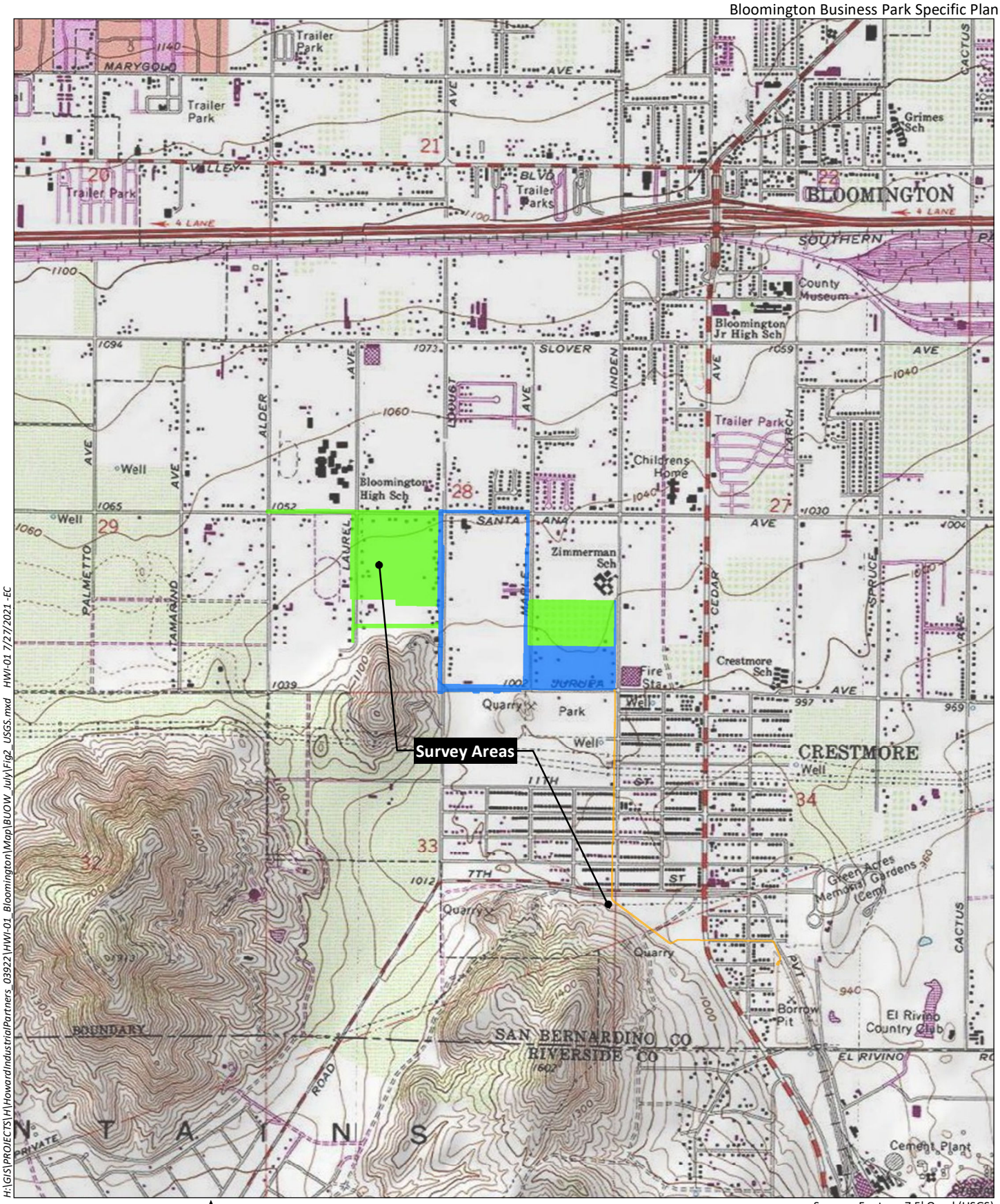
0 6 Miles

Source: Base Map Layers (Esri, 2013)

HELIX Environmental Planning

Regional Location

Figure 1



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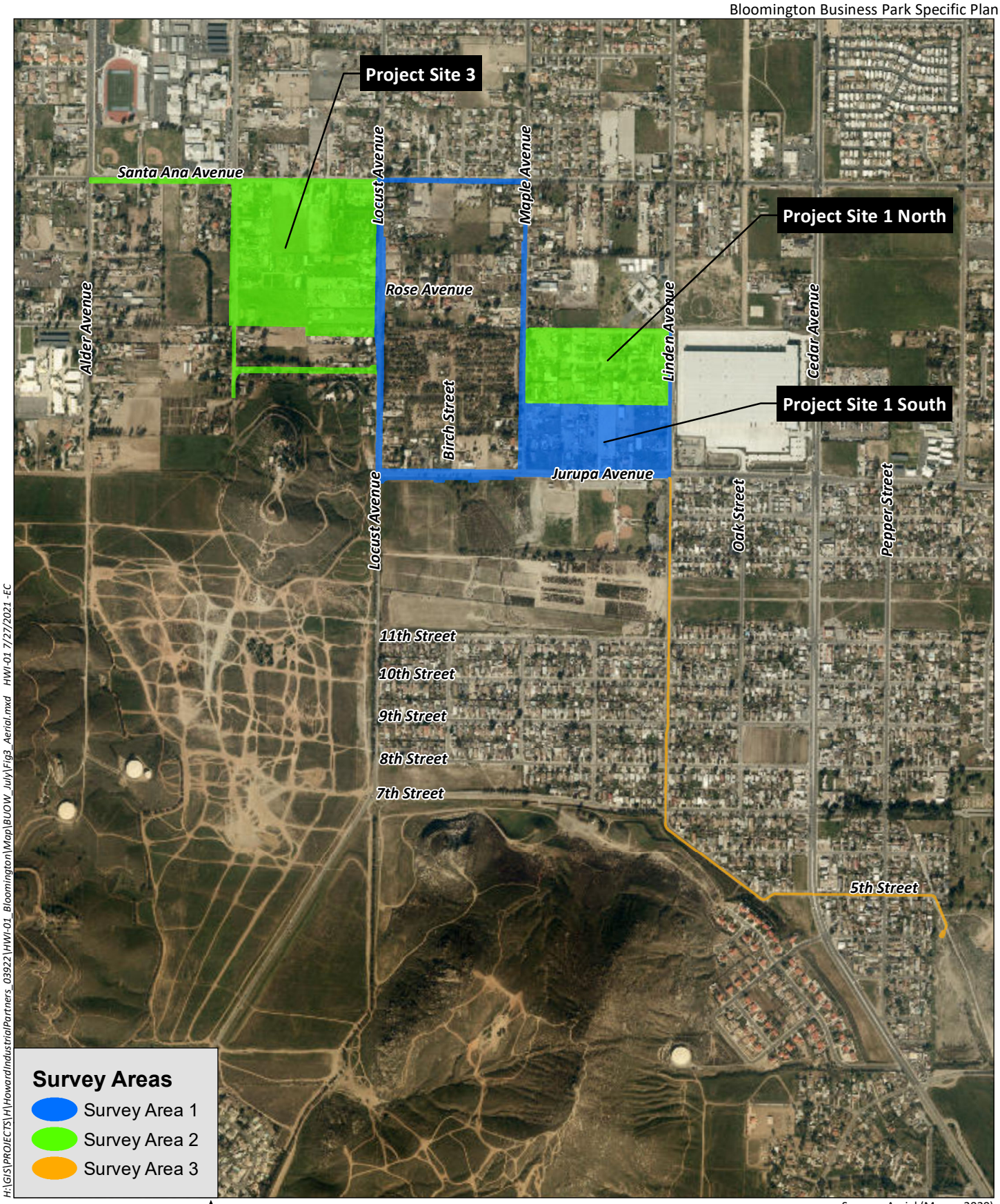
0 2,000 Feet

Source: Fontana 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2



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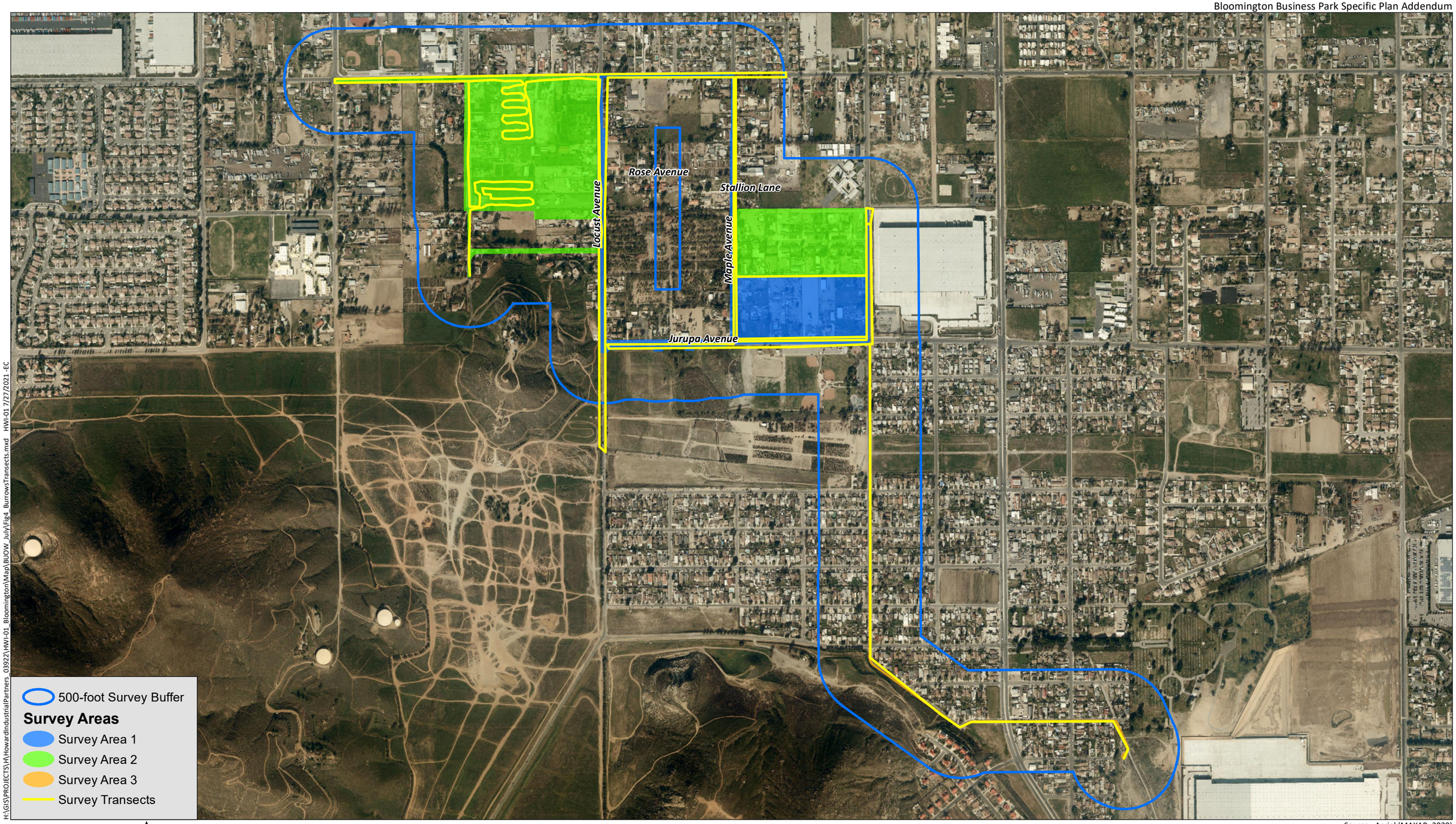
Source: Aerial (Maxar, 2020)

HELIX Environmental Planning

Aerial Photograph

Figure 3



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Source: Aerial (MAXAR, 2020)

HELIX Environmental Planning

Transect Locations

Figure 4

Photograph 1: View of the northern portion of Project Site 1, facing northeast. Stallion Lane is in the center of the photograph. Residential homes and associated landscaping is on the left and right of the photo.

Photograph 2: View of the rural residential homes in the southeastern portion of Project Site 1, facing north.

Photograph 3: View of disturbed land in the central portion of Project Site 3, facing north.

Photograph 4: View of disturbed land in the northeastern portion of Project Site 3, facing west. Santa Ana Avenue can be seen on the right.

Photograph 5: View of the off-site areas located along Locust Avenue, facing north.

Photograph 6: View of the off-site areas along Maple Avenue, facing south.

Appendix G

Project Site 2 Burrowing Owl Focused Survey Report

HELIX Environmental Planning, Inc.
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September 17, 2018 HWI-01

Mr. Timothy Howard
Howard Industrial Partners
1944 North Tustin Street, Suite 122
Orange, CA 92865

Subject: 2018 Burrowing Owl (*Athene cunicularia*) Survey Report for Project Site 2 of the Bloomington Business Park Specific Plan Project

Dear Mr. Howard:

This letter report presents the results of the 2018 focused burrowing owl (*Athene cunicularia*; BUOW) survey conducted by HELIX Environmental Planning, Inc. (HELIX) for Project Site 2 of the Bloomington Business Park Specific Plan Project (project) located in the community of Bloomington, unincorporated San Bernardino County, California. The survey was conducted in accordance with the California Department of Fish and Wildlife (CDFW; previously California Department of Fish and Game [CDFG]) Staff Report on Burrowing Owl Mitigation (CDFG 2012). This letter report describes the methods used to perform the survey and the survey results.

PROJECT SITE LOCATION

The approximately 56-acre project site comprises 26 parcels with Assessor Parcel Numbers (APNs): 025-611-102, -106, -107, -108, -111, -119, -126, -129, -140 through -145, -148 through -153, -155, -156, and -158 through -161 in the community of Bloomington, unincorporated San Bernardino County, California. The project site is generally located one mile south of Interstate (I-) 10, eight miles to the east of I-15, five miles west of I-215, and three miles north of California State Route 60 (Figure 1, *Regional Location*). The project site is within Section 28 of Township 1 South, Range 5 West of the Fontana U.S. Geological Survey 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the project site is located directly north of the intersection of Jurupa Avenue and Birch Street (Figure 3, *Aerial Vicinity*).

PROJECT SITE DESCRIPTION

The project site is primarily flat, with elevations ranging from approximately 1,010 feet above mean sea level (AMSL) near the southern boundary of the project site to approximately 1,040 feet AMSL near the northeastern corner. The project site is mostly developed with rural residential housing and active plant

nurseries making up approximately 80 percent of the existing land use. Two soil types are mapped on the project site, including Tujunga Loamy sand, zero to five percent slopes (TuB) and Delhi Fine Sands (Db).

Immediate surrounding land uses include existing rural residential homes to the north, rural residential homes and Walter Zimmerman Elementary School to the east, rural residential and Santa Ana Nursery to the west, and undeveloped land and a Christmas tree farm to the south (Figure 3). The project site is located approximately 1.5 miles to the northeast of Martin Tudor Jurupa Hills Regional Park and 5.5 miles to the northwest of Box Springs Mountain Reserve Park.

Vegetation Communities

A total of four vegetation communities and land uses were mapped on the project site, including developed, disturbed habitat, eucalyptus stand, and nursery (Figure 4, *Suitable Burrow and Transect Locations*). A brief description of vegetation communities and land uses that were surveyed for BUOW and sign during the focused surveys is provided below. Representative photographs of the project site are shown on Attachment A, *Site Photographs*.

Developed

Developed land is where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained.

Developed areas were observed in the northern and southern portions of the project site, which totaled 15.63 acres. Developed areas included residential homes and paved roads.

Disturbed

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land dominated by non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat.

Disturbed habitat on the project site consists of the backyards of the existing residential development. These areas are found mainly along Rose Avenue and Stallion Lane in the northern end of the project site and along Jurupa Avenue to the south. Disturbed habitat within the project site totaled 7.73 acres. These areas are mostly unvegetated, although a few species with a high tolerance for disturbance were observed, such as prickly Russian thistle (*Salsola tragus*) and short-pod mustard (*Hirschfeldia incana*).

Eucalyptus Stand

Eucalyptus stand is dominated by eucalyptus (*Eucalyptus* spp.), an introduced species that has often been planted purposely for wind blocking, ornamental, and hardwood production purposes. Most stands are monotypic with the most common species being either the blue gum (*Eucalyptus globulus*) or red gum (*Eucalyptus camaldulensis*). The understory within well-established stands is usually very sparse due to the closed canopy and allelopathic nature of the abundant leaf and bark litter. If sufficient moisture is available, this species becomes naturalized and can reproduce and expand its range. The

sparse understory offers only limited wildlife habitat; however, these woodlands provide excellent nesting sites for a variety of raptors.

Eucalyptus trees were planted on the western and northern boundaries of the palm tree farm located in the center of the project site, which totaled 0.60 acre. Ornamental tree species observed included Brazilian pepper tree (*Schinus terebinthifolia*), river red gum (*Eucalyptus camaldulensis*), and silver dollar gum (*Eucalyptus polyanthemos*).

Nursery

Nursery is characterized as permanent structures related to the nursery functions and/or potted plants temporarily placed in rows, which prevents the growth of most other vegetation.

Nurseries were observed in the northeastern and central portions of the project site, which totaled 32.45 acres. The nurseries included structures, maintained dirt roads, and areas stocked with potted plants.

METHODS

The focused BUOW survey was conducted according to the CDFW BUOW survey guidelines (CDFG 2012), which includes Part I Habitat Assessment and Focused Burrow Survey and Part II Focused BUOW Surveys. The survey methods are described in further detail below.

Part I: Habitat Assessment and Focused Burrow Survey

Prior to conducting the habitat assessment, HELIX consulted the California Natural Diversity Database (CNDDB) to determine the nearest BUOW occurrence(s). A habitat assessment was conducted by HELIX biologist Ezekiel Cooley on December 19, 2017, to determine whether the project site supports suitable BUOW habitat. A focused burrow survey was conducted concurrently with the habitat assessment. All suitable burrows (i.e., greater than 11 centimeter (cm) in height and width and greater than 150 cm in depth) and burrow surrogates were recorded using a handheld Global Positioning System (GPS) unit (Figure 4). The habitat assessment and focused burrow survey were conducted prior to commencement of the BUOW focused surveys. The assessment was conducted on the project site and included a 150-meter (approximately 500-foot) buffer zone around the periphery of the project site (survey area). Inaccessible areas of the survey area, including land behind fences, were visually assessed using binoculars. The survey area was slowly walked and assessed for suitable BUOW habitat, including:

- disturbed, low-growing vegetation within grassland and shrublands (less than 30 percent canopy cover);
- gently rolling or level terrain;
- areas with abundant small mammal burrows, especially California ground squirrel (*Otospermophilus beecheyi*) burrows;
- fence posts, rocks, or other low perching locations; and
- man-made structures, such as earthen berms, debris piles, and cement culverts.

All potential burrows were checked for signs of recent owl occupation. Signs of occupation include:

- pellets/casting (regurgitated fur, bones, and/or insect parts);
- white wash (excrement); and/or
- feathers.

Part II: Focused Burrowing Owl Surveys

Since suitable habitat and burrows were observed within the survey area during the habitat assessment, focused BUOW surveys were conducted to determine whether the survey area supports BUOW. The focused surveys consisted of four breeding season surveys that were performed by HELIX biologist Ezekiel Cooley between February 20 and June 21, 2018. The surveys were spaced at least three weeks apart, with at least one survey conducted between February 15 and April 15 and three surveys conducted between April 15 and July 15 (Table 1, *Survey Information*).

The biologist walked transects spaced no greater than 20 meters apart (approximately 65 feet) to allow for 100 percent visual coverage of all suitable habitat within the survey area (Figure 4). The biologist walked slowly and methodically, closely checking suitable habitat within the survey area for BUOW diagnostic sign (e.g., molted feathers, pellets/castings, or whitewash at or near a burrow entrance) and individual BUOW. If observed, BUOW sign and BUOW observations were recorded with a GPS unit. Inaccessible areas of the survey area were visually assessed using binoculars.

Table 1
SURVEY INFORMATION

Site Visit	Survey Date	Biologist	Start/Stop Time	Start/Stop Weather Conditions	Survey Results
HA[1]	12/19/17	Ezekiel Cooley	0815-1115	46°F, wind 0-1 mph, 0% clouds 69°F, wind 0-1 mph, 0% clouds	Suitable habitat and burrows present.
1	02/20/18	Ezekiel Cooley	0640-1000	42°F, wind 0-1 mph, 0% clouds 57°F, wind 0-1 mph, 5% clouds	No BUOW detected.
2	04/17/18	Ezekiel Cooley	0625-1000	47°F, wind 2-3 mph, 100% clouds 56°F, wind 1-2 mph, 10% clouds	No BUOW detected.
3	05/29/18	Ezekiel Cooley	0645-0915	64°F, wind 0-1 mph, 100% clouds 70°F, wind 0-1 mph, 30% clouds	No BUOW detected.
4	06/21/18	Ezekiel Cooley	0620-1000	60°F, wind 0-1 mph, 100% clouds 71°F, wind 0-1 mph, 100% clouds	No BUOW detected.

[1] Part I Habitat Assessment and focused burrowing survey.

RESULTS

No BUOW have been previously recorded on the project site. The nearest BUOW observation recorded in CNDDB was observed in 2006, approximately 0.50 mile to the east of the survey area (CDFW 2018).

Suitable BUOW habitat was observed within the survey area, including low-growing vegetation within the disturbed habitat and open land on the nurseries. Several burrows that could potentially be used by BUOW were observed within the survey area and suitable foraging habitat was observed within and adjacent to the survey area. No BUOW or sign of BUOW occupation were observed within the survey

area during the four focused surveys. Therefore, BUOW do not currently occupy the survey area. Observed burrow locations and transects walked are show on Figure 4.

CONCLUSION

No BUOW were observed or detected within the survey area during the focused surveys. Burrows with potential to support BUOW were noted on the project site, but no sign of BUOW occupation was observed. A take avoidance (pre-construction) survey is required to be conducted within 14 days prior to ground disturbance in accordance with CDFG Staff Report on Burrowing Owl Mitigation (2012). If ground-disturbing activities are delayed more than 14 days after the pre-construction survey has been completed, the project site must be resurveyed.

If you have any questions regarding the information presented in this letter report, please contact Ezekiel Cooley (EzekielC@helixepi.com) at (949) 234-8770.

Sincerely,

Ezekiel Cooley
Biologist

Enclosures:

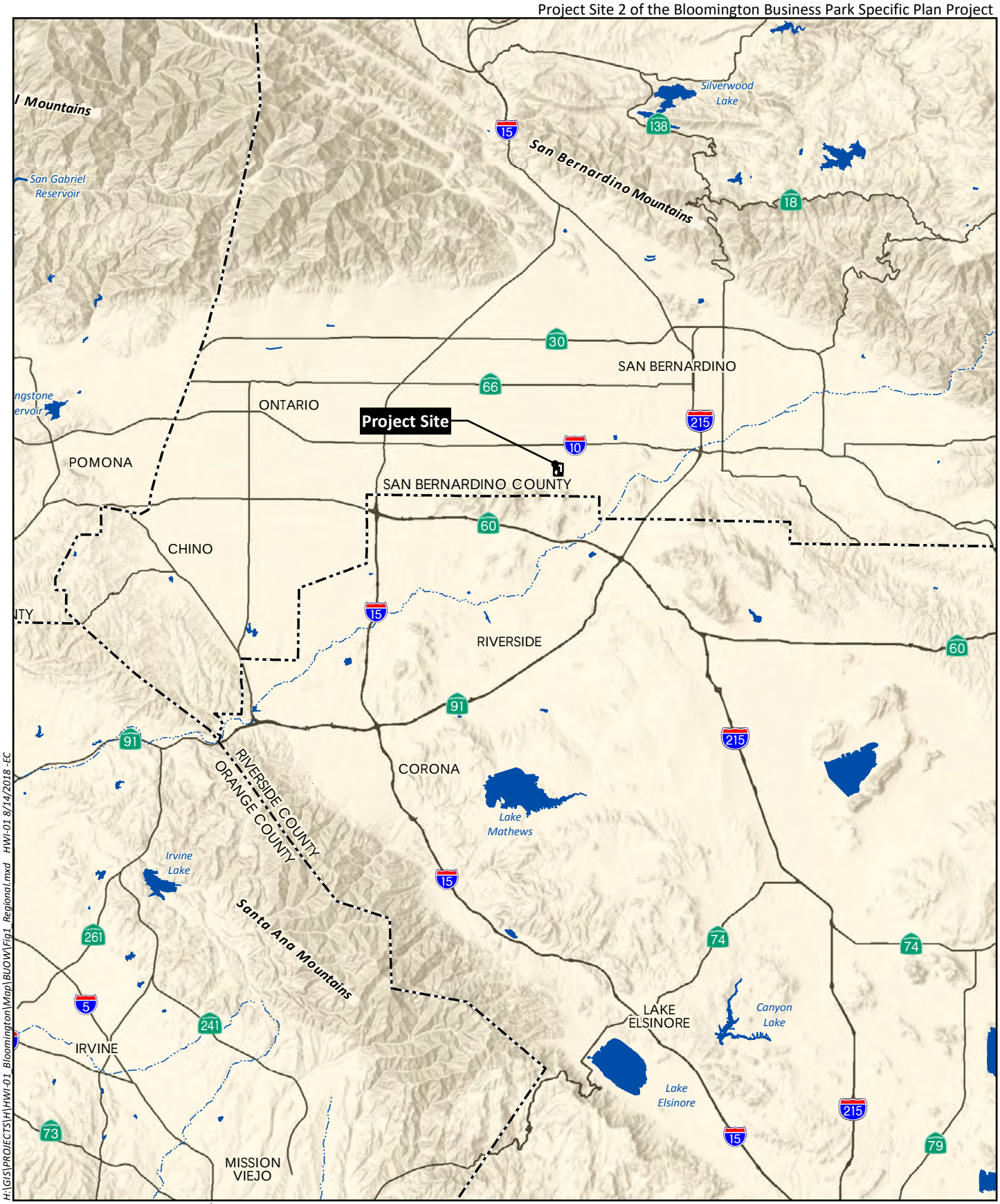
Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Vicinity
Figure 4: Suitable Burrow and Transect Locations
Attachment A: Site Photographs

REFERENCES

California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resource Agency. March 7.

California Department of Fish and Wildlife. 2018. California Natural Diversity Database and Rarefind. California Department of Fish and Wildlife: Sacramento, California. Retrieved from: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed August 3, 2018.

Project Site 2 of the Bloomington Business Park Specific Plan Project



H:\GIS\PROJECTS\H\HWI-01_Bloomington\Map\BUOW\Fig1_Regional.mxd HWI-01 8/14/2018 -EC

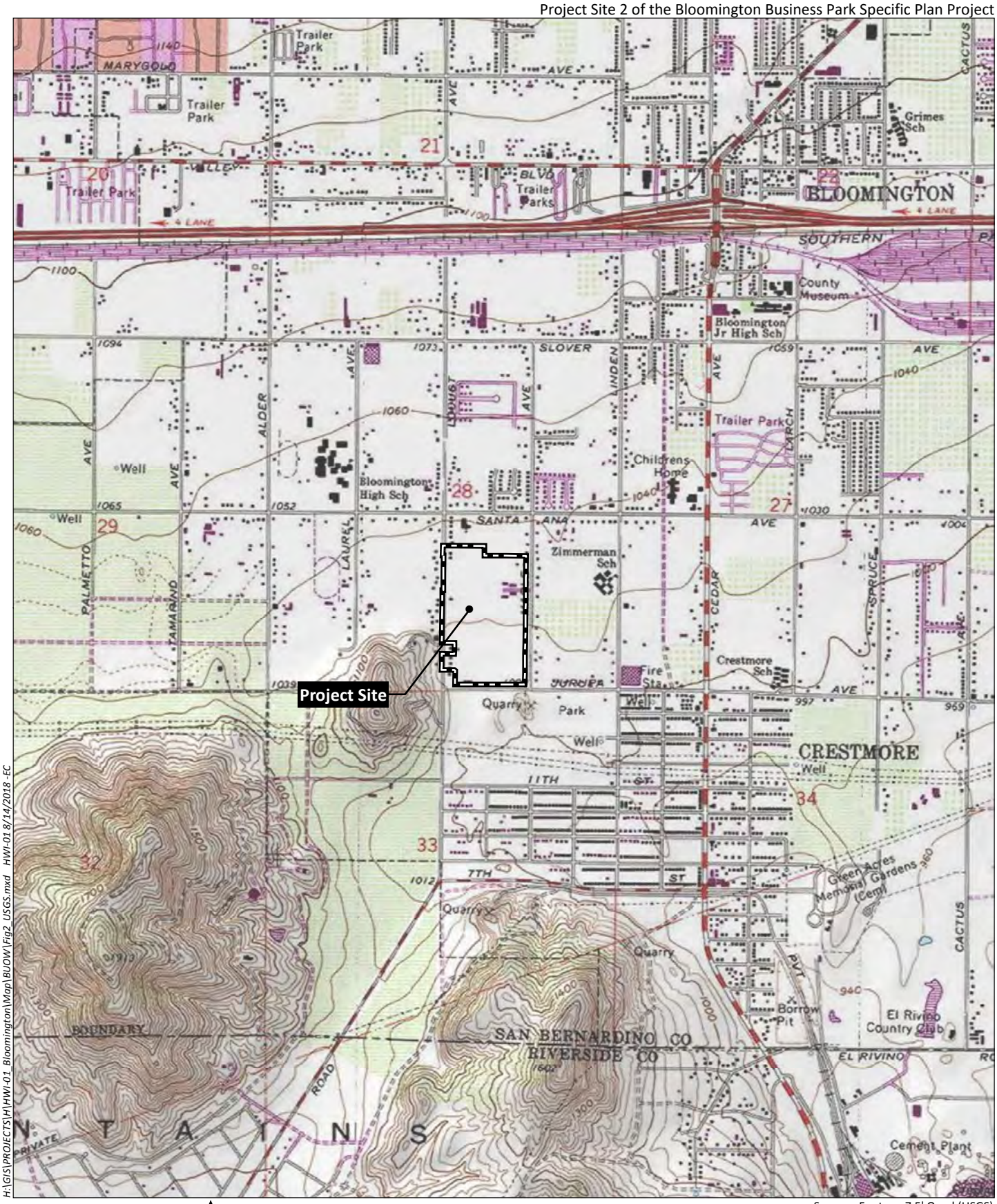
0 6 Miles

Source: Base Map Layers (Esri, 2013)

HELIX Environmental Planning

Regional Location

Figure 1



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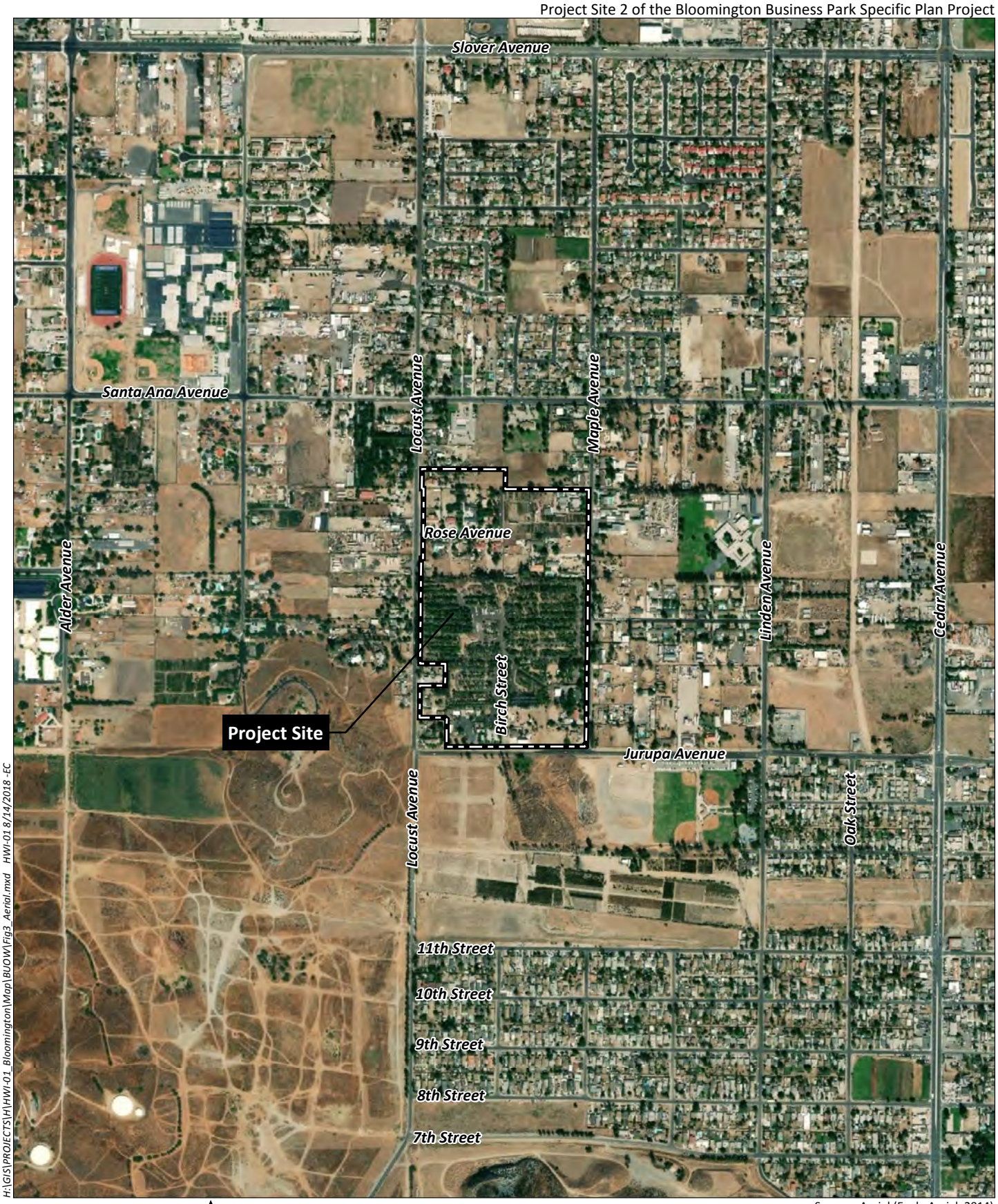
Source: Fontana 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2



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0 1,000 Feet

Source: Aerial (Eagle Aerial, 2014)

HELIX Environmental Planning

Aerial Vicinity

Figure 3

Project Site 2 of the Bloomington Business Park Specific Plan Project

Project Site
500-foot Survey Buffer
Burrow Locations
Transects
Photograph Locations

Vegetation

Developed
Disturbed
Eucalyptus Stand
Nursery

Rose Avenue
Stallion Lane
Locust Avenue
Maple Avenue
Jurupa Avenue
1
2
3
4

H:\GIS\PROJECTS\H\HWI-01_Bloomington\Map\BUOW\Fig4_BurrowsTransects.mxd HWI-01 8/21/2018 -EC

0 250 Feet

Source: Base Map Layers (NAIP, 2016)

HELIX Environmental Planning

Suitable Burrow and Transect Locations

Figure 4

Photograph 1: View of the Palm Nursery that occupies most of the central and southern portion of the project site.

Photograph 2: View of the Nursery that is located in the northeastern corner of the project site.

Photograph 3: View of a disturbed portion of a rural residence located in the center of the project site.

Photograph 4: View of a small family ranch located in the eastern portion of the project site.

Note: See Figure 4 for photograph locations.

Source: HELIX 2018

Appendix H

Project Site 4 Burrowing Owl Focused Survey Report

HELIX Environmental Planning, Inc.
16485 Laguna Canyon Road
Suite 150
Irvine, CA 92618
949.234.8792 **tel.**
619.462.0552 **fax**
www.**helixepi**.com

July 26, 2021 03922.00001.001

Mr. Timothy Howard
Howard Industrial Partners
1944 North Tustin Street, Suite 122
Orange, CA 92865

Subject: 2021 Burrowing Owl (*Athene cunicularia*) Survey Report for the Bloomington Business Park Specific Plan Project Site 4

Dear Mr. Howard:

This letter report presents the results of the 2018 focused burrowing owl (*Athene cunicularia*; BUOW) survey conducted by HELIX Environmental Planning, Inc. (HELIX) for Bloomington Business Park Specific Plan Project (Specific Plan) located in the community of Bloomington, unincorporated San Bernardino County, California. The survey was conducted within Project Site 4 (project site) associated with the Specific Plan in accordance with the California Department of Fish and Wildlife (CDFW; previously California Department of Fish and Game [CDFG]) Staff Report on Burrowing Owl Mitigation (CDFG 2012). This letter report describes the methods used to perform the survey and the survey results

PROJECT SITE LOCATION

The approximately 9.4-acre project site is generally located 1.3 miles to the south of Interstate 10 and 3.3 miles to the north of State Route 60 (Figure 1, Regional Location). The site is within Section 28 of Township 1 South, Range 5 West on the U.S. Geological Survey (USGS) 7.5-minute Fontana quadrangle map (Figure 2, USGS Topography. Specifically, the project site is located along the western boundary of the Specific Plan Area, and is west of Laurel Avenue, south of Santa Ana Avenue, and east of Alder Avenue (Figure 3, *Aerial Photograph*).

PROJECT SITE DESCRIPTION

The project site comprises a vacant rural residential lot. Vegetation on the project site consist of disced mustard fields and a row of Indian laurel fig (*Ficus macrocarpa*). Concrete piles were noted near the center of the site. Elevations on the project site range from approximately 1,036 feet above mean sea level (AMSL) near the southeastern corner of the site to 1,045 feet AMSL near the northeastern corner.

Soils on the site are mostly mapped as Delhi fine sands with a small area in the northwestern corner mapped as Tujunga loamy sand (0 to 5 percent slopes; Figure 6; Natural Resources Conservation Service 2021).

Part I: Habitat Assessment and Focused Burrow Survey

Prior to conducting the habitat assessment, HELIX consulted the California Natural Diversity Database (CNDDB) to determine the nearest BUOW occurrence(s). A habitat assessment was conducted by HELIX Biologist Daniel Torres on January 20, 2021 to determine whether the project site supports suitable BUOW habitat. A focused burrow survey was conducted concurrently with the habitat assessment. All suitable burrows (i.e., greater than approximately 4 inches [11 cm] in height and width and greater than approximately 59 inches [50 cm] in depth) and burrow surrogates were recorded using a handheld Global Positioning System (GPS) unit. The habitat assessment and focused burrow survey were conducted prior to commencement of the BUOW focused surveys. The assessment was conducted on the project site and included an approximately 500-foot (150-m) buffer zone around the periphery of the project site (survey area). Inaccessible areas of the survey area, including private land behind fences, were visually assessed using binoculars. The survey area was slowly walked and assessed for suitable BUOW habitat, including:

- disturbed, low-growing vegetation within grassland and shrublands (less than 30 percent canopy cover);
- gently rolling or level terrain;
- areas with abundant small mammal burrows, especially California ground squirrel (*Otospermophilus beecheyi*) burrows;
- fence posts, rocks, or other low perching locations; and
- man-made structures, such as earthen berms, debris piles, and cement culverts.

All potential owl burrows were checked for signs of recent owl occupation. Signs of occupation include:

- pellets/casting (regurgitated fur, bones, and/or insect parts);
- white wash (excrement); and/or
- feathers.

Part II: Focused Burrowing Owl Survey

Since suitable habitat and burrows were observed within the survey area during the habitat assessment, focused BUOW surveys were conducted to determine whether the survey area supports BUOW. The focused surveys consisted of four breeding season surveys that were performed by HELIX Biologists Matthew Dimson and Jessica Lee between February 16 and June 16, 2021. The surveys were spaced at least three weeks apart, with at least one survey conducted between February 15 and April 15, and the remaining three surveys conducted between April 15 and July 15 with at least one of these survey occurring after June 15 (Table 1, *Survey Information*).

The biologists walked transects spaced no greater than approximately 65 feet apart (20 meters) to allow for 100 percent visual coverage of all suitable habitat within the survey area. The biologists walked slowly and methodically, closely checking suitable habitat within the survey area for BUOW diagnostic sign (e.g., molted feathers, pellets/castings, or whitewash at or near a burrow entrance) and individual

BUOW. If observed, BUOW sign and BUOW observations were recorded with a GPS unit. Inaccessible areas of the survey area were visually assessed using binoculars.

Table 1
SURVEY INFORMATION

Site Visit	Survey Date	Biologist	Start/Stop Time	Start/Stop Weather Conditions	Survey Results
HA[1]	01/20/21	Daniel Torres	0740-1200	63°F, wind 10-13 mph, 40% clouds 67°F, wind 10-13 mph, 10% clouds	Suitable habitat and burrows present.
1	02/16/21	Jessica Lee	0645-0845	50°F, wind 0-1 mph, 100% clouds 52°F, wind 0-1 mph, 100% clouds	No BUOW detected.
2	03/31/21	Matthew Dimson	0600-0800	55°F, wind 3-5 mph, 0% clouds 66°F, wind 3-5 mph, 0% clouds	No BUOW detected.
3	05/17/21	Matthew Dimson	0600-0805	56°F, wind 1-2 mph, 100% clouds 57°F, wind 1-2 mph, 90% clouds	No BUOW detected.
4	06/16/21	Matthew Dimson	0615-0825	70°F, wind 0-1 mph, 0% clouds 76°F, wind 0-1 mph, 0% clouds	No BUOW detected.

[1] Part I Habitat Assessment and focused burrowing survey.

RESULTS

No BUOW records were found to occur on or within the project site during the literature review. The nearest BUOW record in CNDDB was observed in 2004, approximately 220 feet to the west of the project site (CDFW 2021). The record notes that BUOW in this location was possibly extirpated due to development in the area. Based on aerial review, this area now consists of a residential development (Google Earth 2021). A BUOW was recorded on the planned West Valley Logistics Center project site in 2017, approximately 0.15 miles west of the intersection of Locust Avenue and 10th Street (Michael Baker International 2017).

Suitable BUOW habitat was observed within the survey area, including low-growing vegetation within the disturbed habitat and open land (Attachment A, *Representative Site Photographs*). Several burrows and burrow surrogates (i.e., concrete piles) that could potentially be used by BUOW were observed within the survey area and suitable foraging habitat was observed within and adjacent to the survey area. No BUOW or sign of BUOW occupation were observed within the survey area during the four breeding season surveys. Therefore, BUOW do not currently occupy the survey area. Observed burrow locations and transects walked are shown on Figure 4, *Suitable Burrow and Transect Locations*.

CONCLUSION

No BUOWs were observed or detected within the survey area during the focused surveys. Burrow and burrow surrogates with potential to support BUOW were noted within the survey area, but no sign of BUOW occupation was observed. A take avoidance (pre-construction) survey is required to be conducted within 14 days prior to construction activities (including ground disturbance) in accordance with CDFW Staff Report on Burrowing Owl Mitigation (2012). If construction activities are delayed more than 14 days after the take avoidance survey has been completed, the project site must be resurveyed.

If you have any questions regarding the information presented in this letter report, please contact Ezekiel Cooley at EzekielC@helixepi.com.

Sincerely,

Daniel Torres
Biologist

Matthew Dimson
Biologist

Jessica Lee
Biologist

Ezekiel Cooley
Senior Biology Project Manager

Enclosures:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Vicinity
Figure 4: Suitable Burrow and Transect Locations
Attachment A: Representative Site Photographs

REFERENCES

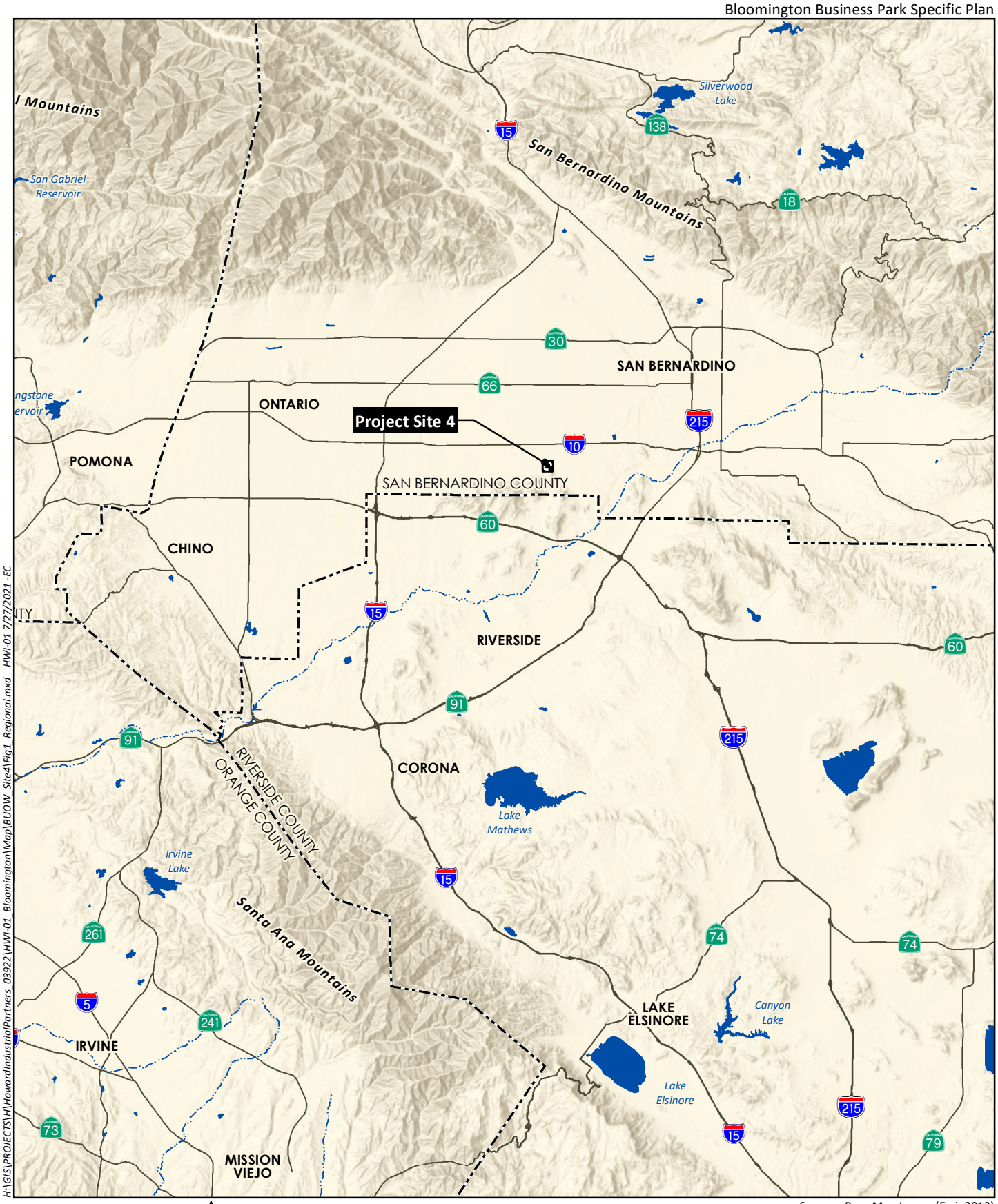
California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resource Agency. March 7.

California Department of Fish and Wildlife. 2021. California Natural Diversity Database and Rarefind. California Department of Fish and Wildlife: Sacramento, California. Retrieved from: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed February 1, 2021.

Google Earth. 2021. Aerial Imagery of the Bloomington Business Park Specific Plan, 34.052228°, -117.409844°. Aerial Imagery from March 2019. Retrieved from: http://www.google.com/earth/index.html. Accessed February 5, 2021.

Michael Baker International. 2017. West Valley Logistics Center Habitat Assessment. Prepared for UST – CB Partners, LP C/O Estein USA. October 2017.

Natural Resources Conservation Service. 2021. Web Soil Survey. United States Department of Agriculture (USDA). Retrieved from: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.Aspx. Accessed February 5, 2021.



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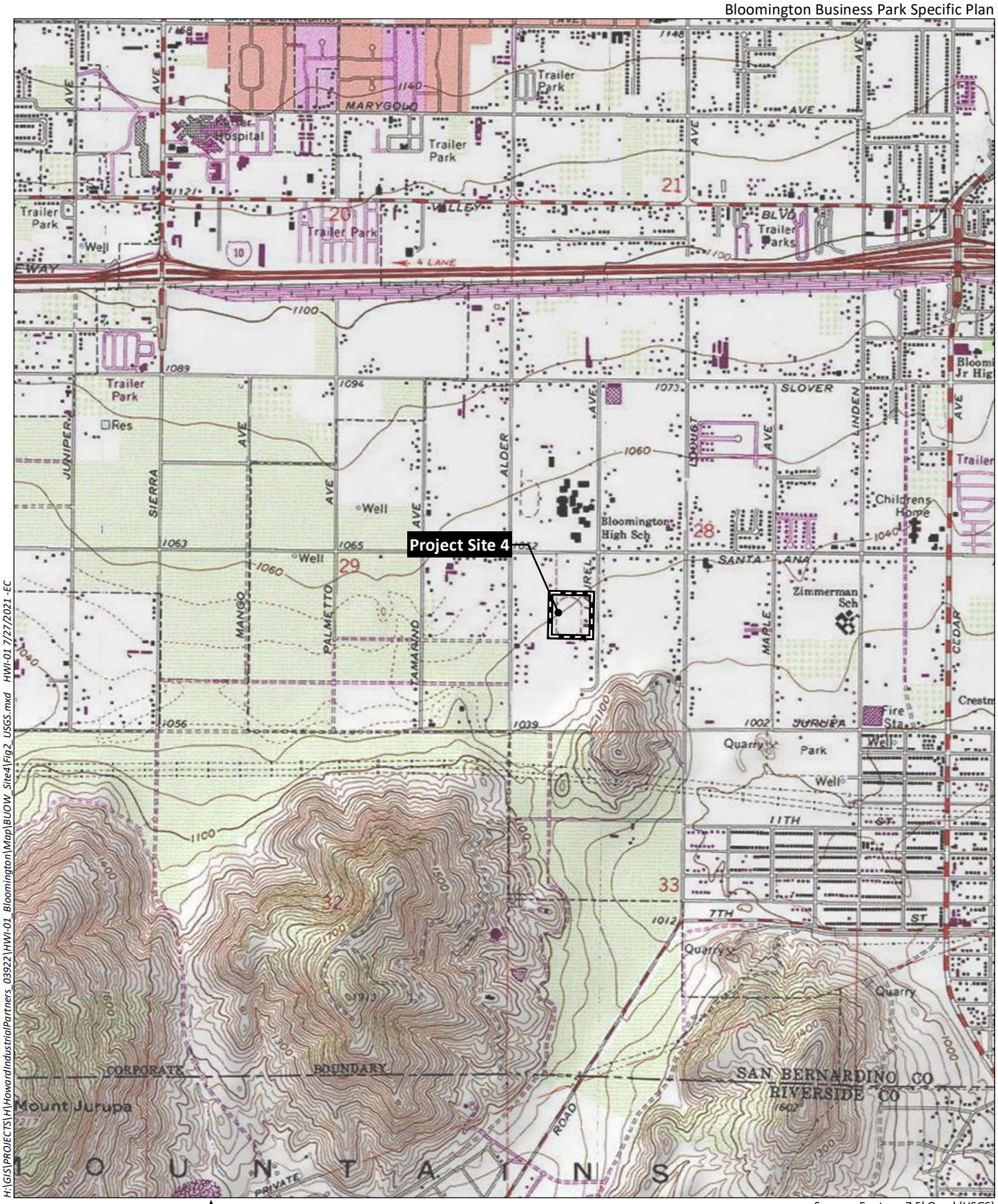
0 6 Miles

Source: Base Map Layers (Esri, 2013)

HELIX Environmental Planning

Regional Location

Figure 1



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0 2,000 Feet

Source: Fontana 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

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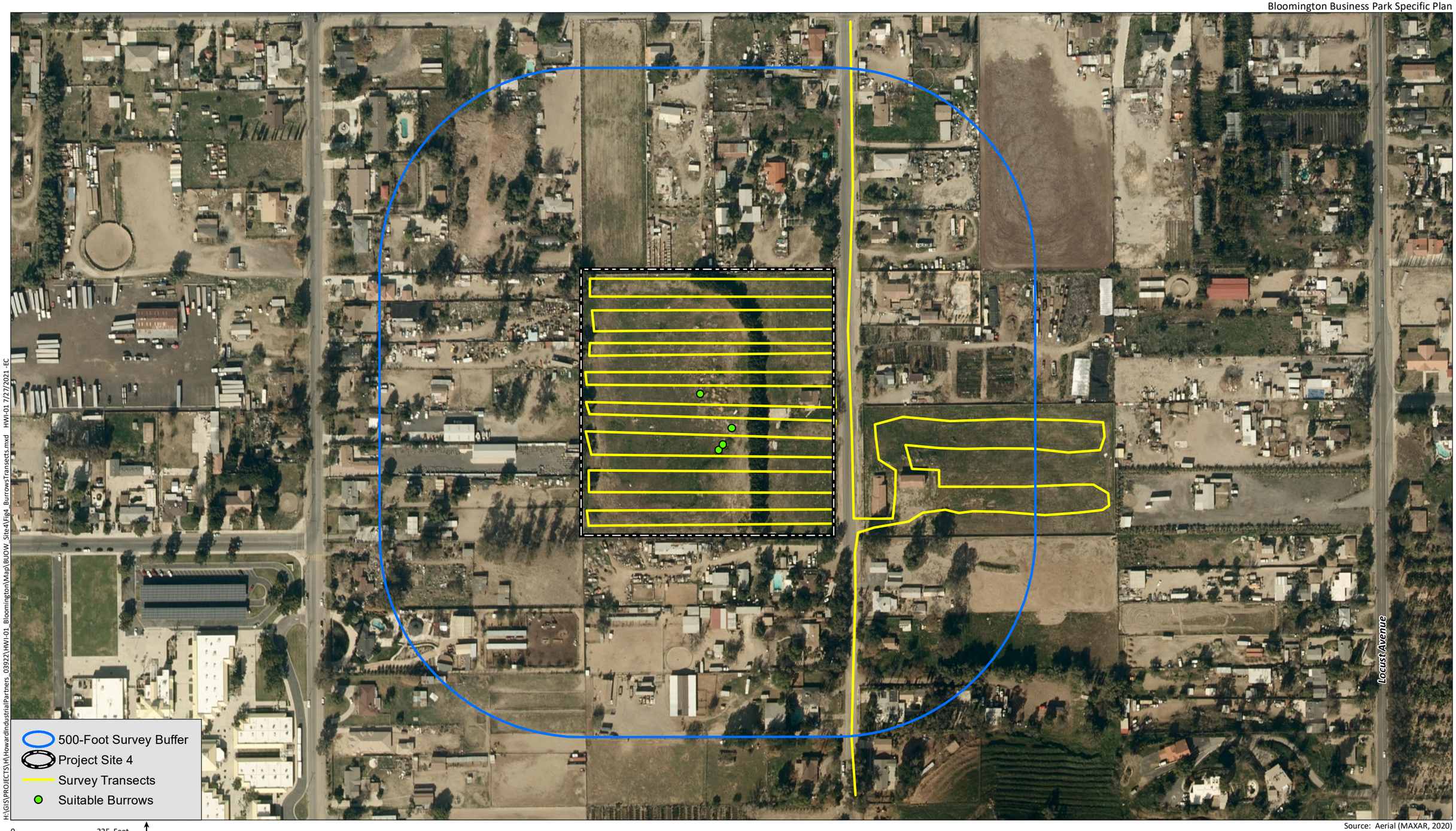
0 1,000 Feet

Source: Aerial (MAXAR, 2020)

HELIX Environmental Planning

Aerial Photograph

Figure 3



Source: Aerial (MAXAR, 2020)

HELIX Environmental Planning

Transect Locations and Suitable Burrows

Figure 4

Photograph 1: View of the southwestern portion of the project site, facing northeast. A row of ornamental Indian laurel fig (*Ficus macrocarpa*) trees can be seen in the background.

Photograph 2: Potential burrow surrogates consisting of concrete piles were observed near the center of the project site.

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Appendix I

Bloomington Business Park Specific Plan Jurisdictional Delineation Report

July 21, 2021

HOWARD INDUSTRIAL PARTNERS
Attention: *Mike Tunney*
1944 North Tustin Street, Suite 122
Orange, California 92865

SUBJECT: Delineation of State and Federal Jurisdictional Waters for the Bloomington Business Park Specific Plan Area Located in the San Bernardino County, California

Introduction

ELMT Consulting (ELMT) conducted a Delineation of State and Federal Jurisdictional Waters, including wetlands, for the Bloomington Business Park Specific Plan located in San Bernardino County, California (project site or site). This delineation was prepared in order to document the jurisdictional authority of the U.S. Army Corps of Engineers' (Corps), the Santa Ana Regional Water Quality Control Board's (Regional Board), and the California Department of Fish and Wildlife's (CDFW) pursuant to Sections 401 and 404 of the Federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act, and Section 1600 of the Fish and Game Code. The fieldwork for this delineation was conducted on July 6, 2021.

This report explains the methodology utilized throughout the course of the delineation, defines the jurisdictional authority of the regulatory agencies, and documents the findings made by ELMT. This report presents ELMT's determination of jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance provided by the regulatory agencies.

Project Location

The project site is generally located south of north of State Route 60, south of Interstate 10, west of Interstate 215 and east of Interstate 14 in the Community of Bloomington, San Bernardino County, California. The site is depicted on the Fontana quadrangle of the United States Geological Survey's (USGS) 7.5-minute map series within Section 28 of Township 1 South, Range 5 West (Exhibit 1, *Site Vicinity*). Specifically, the Specific Plan is bound by Santa Ana Avenue to the north, Linden Avenue to the east, Jurupa Avenue to the south, and Alder Avenue to the west (Exhibit 2, *Project Site*).

Project Description

The Bloomington Business Park consist of four initial planning areas and offsite infrastructure corridors for sewer, water and storm drains.

Methodology

ELMT field staff conducted a thorough review of relevant literature and materials in order to preliminarily identify potential jurisdictional features occurring on or within the vicinity of the project site. In addition, a field investigation was conducted to verify existing conditions and document the extent of jurisdictional

features within the boundaries of the project site.

Literature Review

Prior to conducting the field visit, a review of relevant literature and materials was conducted in order to preliminarily identify potential jurisdictional features occurring on or within the vicinity of the project site. In addition, the following resources were reviewed prior to conducting the field investigation:

- CDFW's *A Review of Stream Processes and Forms in Dryland Watersheds* (2010);
- Corps Arid West Regional Supplement (Version 2.0) to the Corps of Engineers Wetland Delineation Manual (2008);
- Corps Navigable Waters Protection Rule: Definition of "Waters of the United States" (2020)
- Corps Arid West Regional Wetland Plant List (2016);
- Federal Emergency Management Agency Flood Insurance Rate Map;
- Google Earth Aerials (1985 – 2020);
- State Wetland Definition and Procedures for Discharges of Dredge or Fill Material to Waters of the State (2021)
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Custom Soil Resource Report for Southwestern San Bernardino County;
- USDA NRCS Hydric Soils List of California;
- United States Fish and Wildlife Service National Wetlands Inventory; and
- Water Quality Control Plan for the Santa Ana River Basin.

Field Investigation

ELMT biologists Travis J. McGill surveyed the project site on July 6, 2021 to verify existing conditions and document the extent of jurisdictional features (e.g., wetlands, streambed, and riparian vegetation) within the boundaries of the project site. While in the field, jurisdictional areas and associated plant communities were mapped onto a base map at a scale of 1" = 50' using topographic contours and visible landmarks as guidelines. Common plant species observed during the field survey were identified by visual characteristics and morphology in the field, and recorded in a field notebook. Unusual and less familiar plants were identified in the laboratory using taxonomical guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual. Data points were obtained with a Garmin Map 62 Global Positioning System and used to record and identify jurisdictional boundaries, soils samples, and photograph locations. This data was then transferred via USB port as a .shp file and added to the project's jurisdictional map. The jurisdictional map and associated acreage amounts were prepared and quantified in ESRI ArcMap Version 10.

Existing Conditions

The majority of the survey area is developed with residential/rural residential developments. Several farming and agricultural activities including horse and livestock corrals are found in association with the rural residences. The entire survey area has been subject to a variety of anthropogenic disturbances associated with development activities. Due to historical and current land uses, no undisturbed native plant communities or natural communities of special concern were observed within the survey area. These disturbances have eliminated the natural plant communities that once occurred on and surrounding the

survey area.

Site Conditions

The project site is located within the middle of the Santa Ana River Watershed (Hydrologic Unit Code 18070203). The watershed encompasses approximately 2,800 square miles and includes much of Orange County, the northwestern corner of Riverside County, the southwestern corner of San Bernardino County, and a small portion of Los Angeles County. The highest elevations (upper reaches) of the watershed occur in the San Bernardino (San Gorgonio Peak – 11,485 feet in elevation) and eastern San Gabriel Mountains (Transverse Ranges Province; Mt. Baldy – 10,080 feet in elevation) and in the San Jacinto Mountains (Peninsular Ranges Province; Mt. San Jacinto – 10,804 feet in elevation). Further downstream, the Santa Ana Mountains and the Chino Hills form a topographic high before the river flows into the Coastal Plain (in Orange County) and into the Pacific Ocean. Primary slope direction is northeast to southwest, with secondary slopes controlled by local topography.

On-site elevation ranges from approximately 900 to 1,060 feet above mean sea level and generally slopes to the west. According to the USDA NRCS Soil Survey, surface soils on and adjacent to the project site consist of Cieneba sandy loam (9 to 15 percent slopes), Cieneba-Rock outcrop complex (30 to 50 percent slopes), Delhi fine sand, Hanford coarse sandy loam (2 to 9 percent slopes), Tujunga loamy sand (0 to 5 percent slopes), and Tujunga gravelly loamy sand (0 to 9 percent slopes). Based on the NRCS Hydric Soils List of California, Delhi fine sand and Tujunga gravelly loamy sand (0 to 9 percent) above listed soil series do not possess hydric soil characteristics.

The U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory maps to determine if any blueline streams or riverine resources have been documented within or immediate surrounding the project site. Based on this review, no resources have been mapped within the project stie. approximately six (6) riverine resources were identified within and immediately adjacent to the survey area. Three small freshwater ponded areas are mapped east of the 5th Street Basin where an industrial building has been developed and coincide with water features associated with the golf course that previously was located east of the 5ht Street Basin. Refer to Appendix B, *Documentation*.

Features

5th Street Basin

Based on a review of topographic maps the area where the 5th Street basin is located is mapped as a borrow pit that is assumed to historically be associated with existing mining activities in the area. The topographic maps show a quarry located immediately west of Cedar Avenue. Additionally, historic aerials (1938-1948) show the area where the 5th Street Basin is located as a fallow field, adjacent to agricultural land uses. In the 1959 aerial a residential housing tract is first seen along the western boundary of the 5th Street Basin, and a golf course is seen east of the site. Minimal changes to the area where the 5th Street Basin is located are seen from 1959 to 2003. In the 2004 aerial, vegetation was removed from the area where the 5th Street Basin is located, and haul trucks and bulldozers are observed in the aerial. The haul trucks and dozers are expected to be removing dirt from the borrow pit, creating the 5th Street Basin to collect additional water flows from surrounding developments. From 2004 to present site conditions with the area where the 5th Street Basin have minimally changed. It should be noted that the golf course east of the site was removed

between 2013 and 2014, and an industrial building was developed in 2019 east of the 5th Street Basin.

The basin primarily supports non-native vegetation with minimal native vegetation scattered on the southern boundary of the basin. Generally, the basin is unvegetated and consists of cobble and sediment. Non-native species dominant within the basin include giant reed (*Arundo donax*, FACW), tree of heaven (*Ailanthus altissima*, FACU), Mexican fan palm (*Washingtonia robusta*; FACW), fountain grass (*Pennisetum setaceum*), palo verde[1] (*Parkinsonia florida*), prickly lettuce (*Lactuca serriola*, FACU, horseweed (*Erigeron bonariensis*, FACU), Russian thistle (*Salsola tragus*, FACU), Bermuda grass (*Cynodon dactylon*, FACU), tree tobacco (*Nicotiana glauca*, FAC), castor bean (*Ricinus communis*, FACU), Peruvian pepper (*Schinus molle*. FACU), eucalyptus (*Eucalyptus sp.*), and pigweed (*Chenopodium album*, FACU). Native species found in the basin include climbing milkweed (*Funastrum cynanchoides*, FACU), California buckwheat (*Eriogonum fasciculatum*), mulefat (*Baccharis salicifolia*, FAC), black willow (*Salix gooddingii*, FACW), and curly dock (*Rumex crispus*, FAC). It should be noted that black willow and mulefat were only observed on the southern end of the basin in the topographic low spot.

The 5th Street Basin was excavated wholly in the uplands, incidental to mining, that was subsequently excavated to receive nuisance flows and storm water runoff from the surrounding residential developments. The basin is earthen and receives flows via a concrete lined road swale on its northern boundary off 5th Street, off 2nd Street in the middle of its western boundary, and from El Rivino Road on its southwest corner. There is a raised pad on the southern portion of the basin above the floor of the basin. The basin does not replace an existing blueline stream or have an outlet/connection to downstream waters. The basin is a closed system within an existing residential neighborhood.

No ponding/standing water was observed onsite during the field investigation. No jurisdictional drainage features connect into the basin, and the basin supports minimal riparian vegetation (i.e. mulefat and black willow). The basin does not provide suitable habitat for special-status wildlife species and does not function as a wildlife movement corridor or linkage. The basin is isolated with no natural connectivity to downstream jurisdictional resources. Based on a review of aerial imagery, water infiltrates quickly into the basin and only ponds following large storm events for short periods of time.

The storm drain discharge point into the 5th Street Basin will connect into the side wall of the basin in an area that supports California buckwheat and non-native grasses. No riparian vegetation (i.e., mulefat or black willow) will be impacted from installation of the storm drain.

Unnamed Ephemeral Drainage

Approximately 730 feet east of the intersection of Jurupa Avenue and Locust Avenue, where the storm drain will be installed within the right-of-way of Jurupa Avenue, is an unnamed ephemeral drainage feature that extends south into an isolated basin found on the northeast corner of the intersection of Locust Avenue and 11th Street. This drainage feature receives storm flows that are collected from roadside ditches/swales associated with Jurupa Avenue and conveys the storm flows south to the detention basin to the south. The proposed storm drain, and bubblers (only release water during large volume storm events) at this location will be installed within the road

1 This species is a native plant species, but is typically associated with Sonoran desert habitats. This species is expected to be a cultivar that established in the basin.

right-of-way, and are not expected to impact this unnamed drainage feature. The bubblers will be installed outside of the limits of the drainage and will flow into the drainage feature.

Findings

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge and/or fill materials into "waters of the United States" pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act and the CDFW regulates alterations to streambed and associated plant communities pursuant to Section 1602 of the California Fish and Game Code.

United States Army Corps of Engineers

Based on the Corps' Navigable Waters Protection Rule: Definition of "Waters of the United States" (2020), the 5th Street Basin will not fall under the regulatory authority of the Corps. Under the 2020 definition, the 5th Street Basin would be considered a water-filled depression constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pit excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel that is considered a non-jurisdictional water.

Federal Wetlands

In order to qualify as wetland, a feature must exhibit all three wetland parameters (i.e., vegetation, soils, and hydrology) described in the Corps Arid West Regional Supplement. Based on the results of the field investigation, the soils were rocky and sandy with no ponding water and, it was determined that the basin would not support hydric soil conditions. Therefore, no areas on the project site met all three wetland parameters.

Regional Water Quality Control Board

Based on the State Policy for Water Quality Control, the 5th Street Basin should not be considered a "water of the state" because it is an artificially created system constructed and maintained for "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" (See State Wetlands Rule, § II(3)(d)(iiI)).

State Wetlands

Under the State Water Resources Control Board Sate Wetland Definition, an area is a 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. Based on the results of the field delineation, it was determined that no areas within the project site meet the State Wetland Definition. Therefore, no state wetland features exist within the project site.

California Department of Fish and Wildlife

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates any activity that will divert or obstruct the natural flow or alter the bed, channel, or bank (which may include associated biological resources) of a river or stream. Since the storm drain discharge point into the 5th Street Basin, which was originally a borrow pit for mining, will connect into the side wall of the basin in an area that supports California buckwheat and non-native grasses, and no riparian vegetation (i.e., mulefat or black willow) will be impacted from installation of the storm drain, an Section 1602 Streambed Alteration Agreement would not be required since the project will not have a substantial adverse impact on an existing fish or wildlife resource.

Conclusion and Recommendations

Based on the latest design plans, the sewer, water and storm drains will be installed within the road right-of-way and are not expected to impact any features that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Implementation of the proposed project will not impact any jurisdictional features under the regulatory authority of the Corps, Reginal Board, or CDFW and regulatory approvals will not be required.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions or require further information.

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

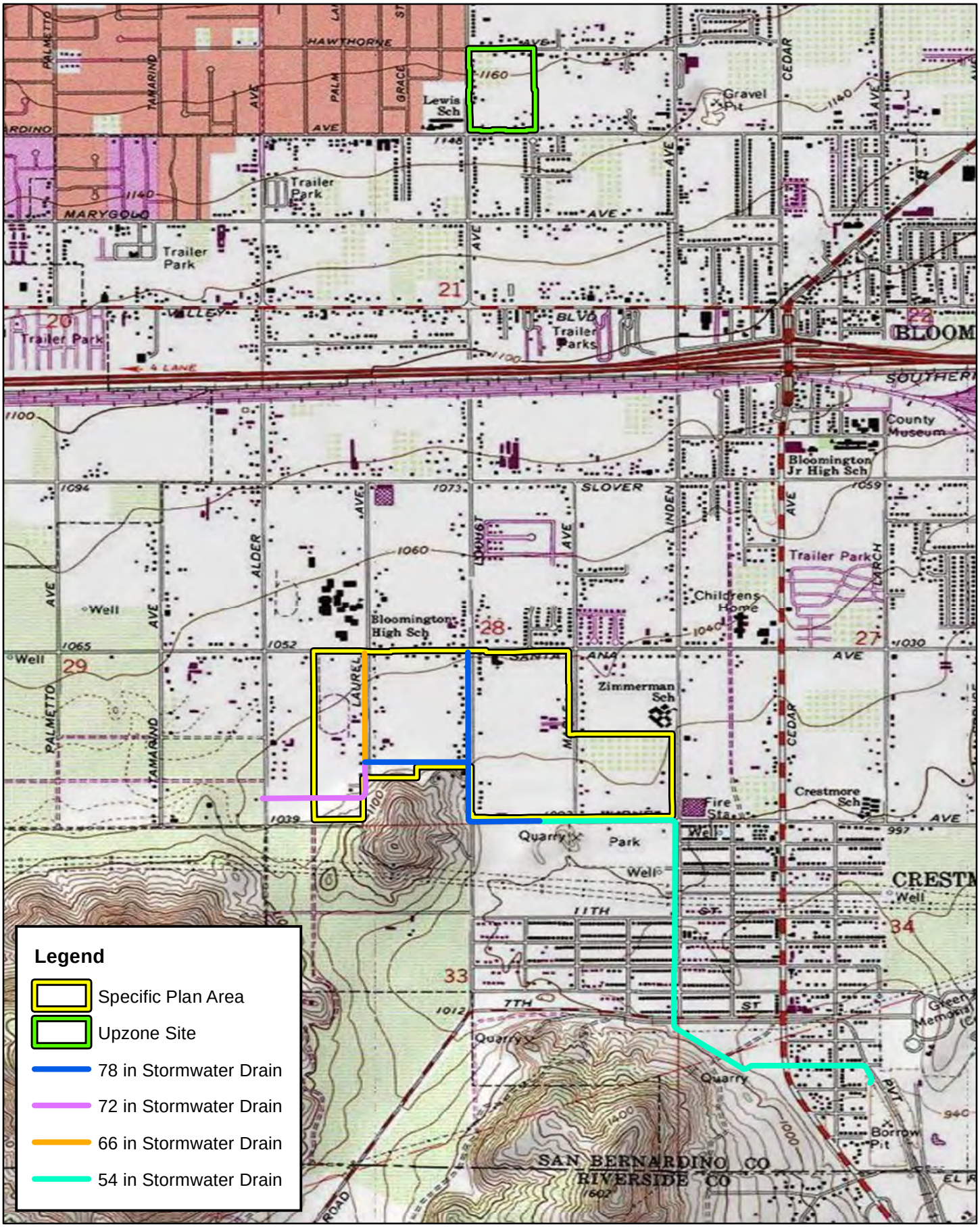
Travis J. McGill
Director

Attachments:

A. *Project Exhibits*
B. *Site Photographs*
C. *Documentation*

Attachment A

Project Exhibits



BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA

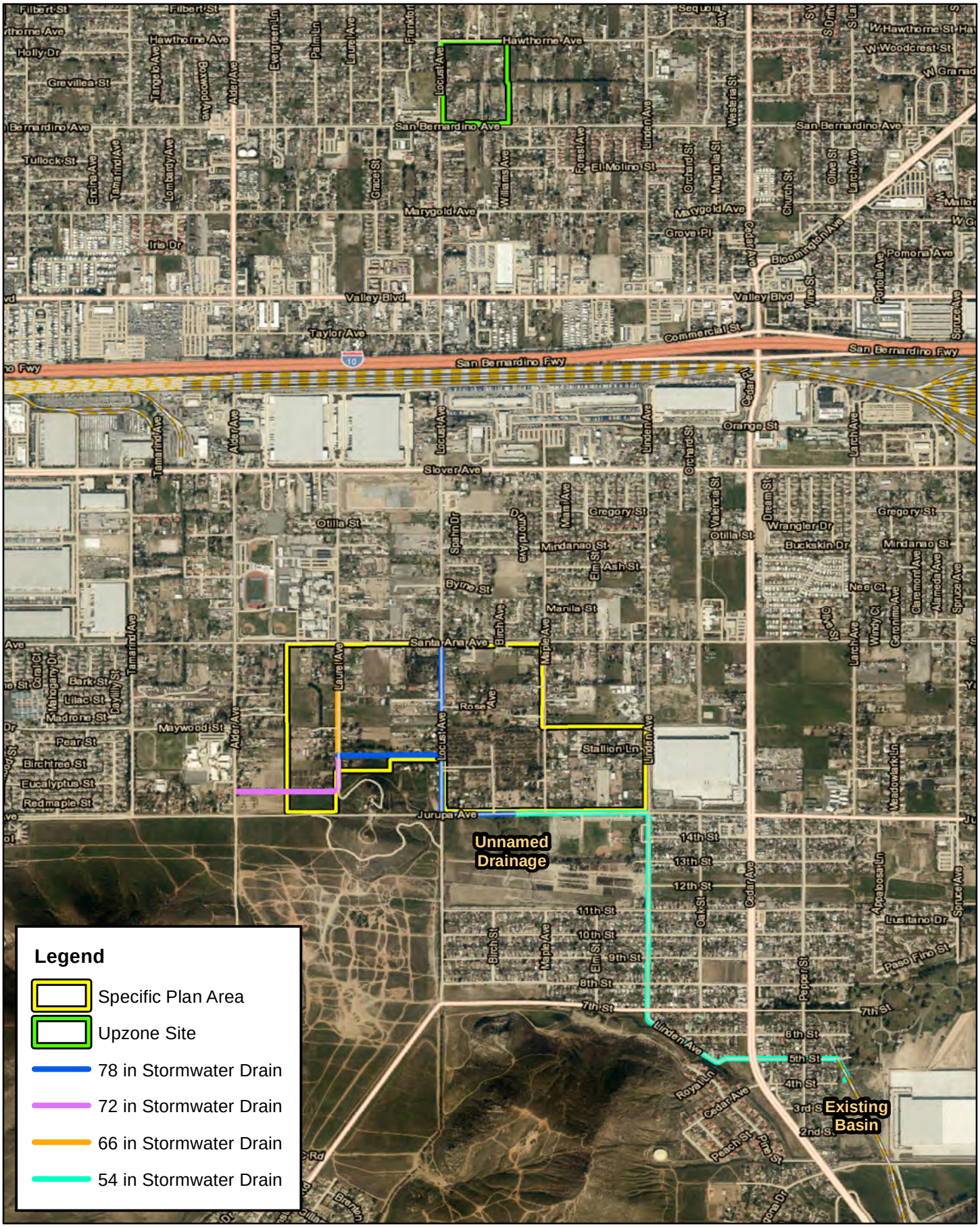
ELMT CONSULTING

0 1,000 2,000 4,000 Feet

Source: USA Topographic Map, San Bernardino County

Site Vicinity

Exhibit 1



BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA

ELMT CONSULTING

Source: ESRI Aerial Imagery, San Bernardino County

Project Site

Exhibit 2

BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA

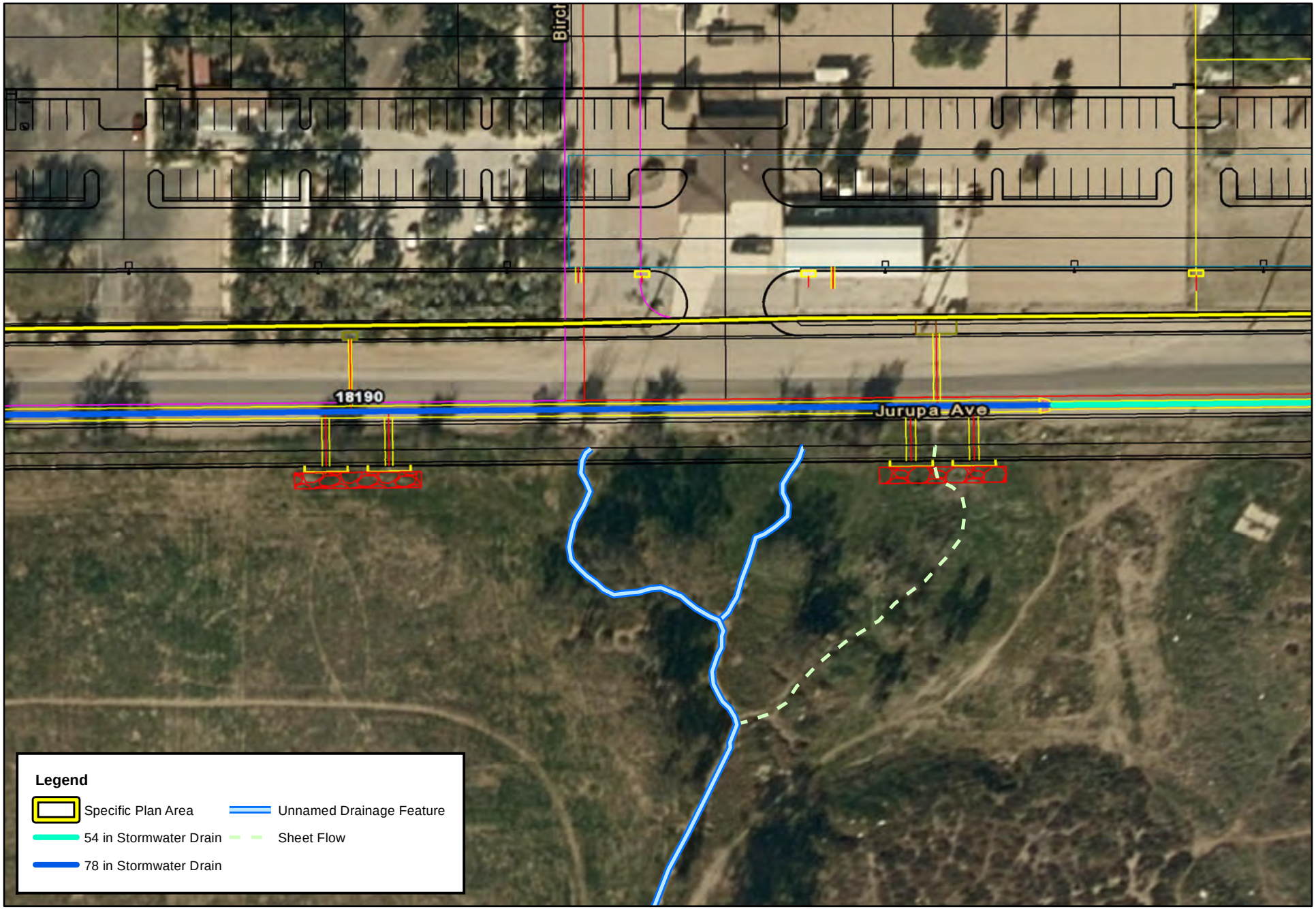
ELMT CONSULTING

0 250 500 1,000 Feet

Source: ESRI Aerial Imagery, San Bernardino County

5th Street Basin

Exhibit 3



BLOOMINGTON BUSINESS PARK SPECIFIC PLAN AREA

ELMT CONSULTING

0 62.5 125 250 Feet

Source: ESRI Aerial Imagery, San Bernardino County

Unnamed Drainage Feature

Exhibit 4

Attachment B

Site Photographs

Photograph 1: Concrete lined v-ditch that is the main source of storm water that enters the northern portion of the basin.

Photograph 2: Non-native vegetation within and adjacent to the concrete lined v-ditch that enters the site.

Photograph 3: Non-native vegetation growing in the concrete lined v-ditch that enters the northern portion of the basin.

Photograph 4: Erosion at the end of the concrete lined v-ditch, and illegal dumping.

Photograph 5: Erosional area where water flows into the basin from the northern boundary.

Photograph 6: Arundo un the middle of the basin.

Photograph 7: From the middle of the basin looking at the northern portion of the basin.

Photograph 8: From the southeast corner of the basin looking west along the southern boundary.

Photograph 9: View of the southeastern corner of the basin.

Photograph 10: Looking at the southwest corner of the basin where storm flows enter via El Rivino Road.

Photograph 11: From the northeast boundary of the basin looking south at the proposed storm drain alignment that will be installed along the northwest boundary of the basin.

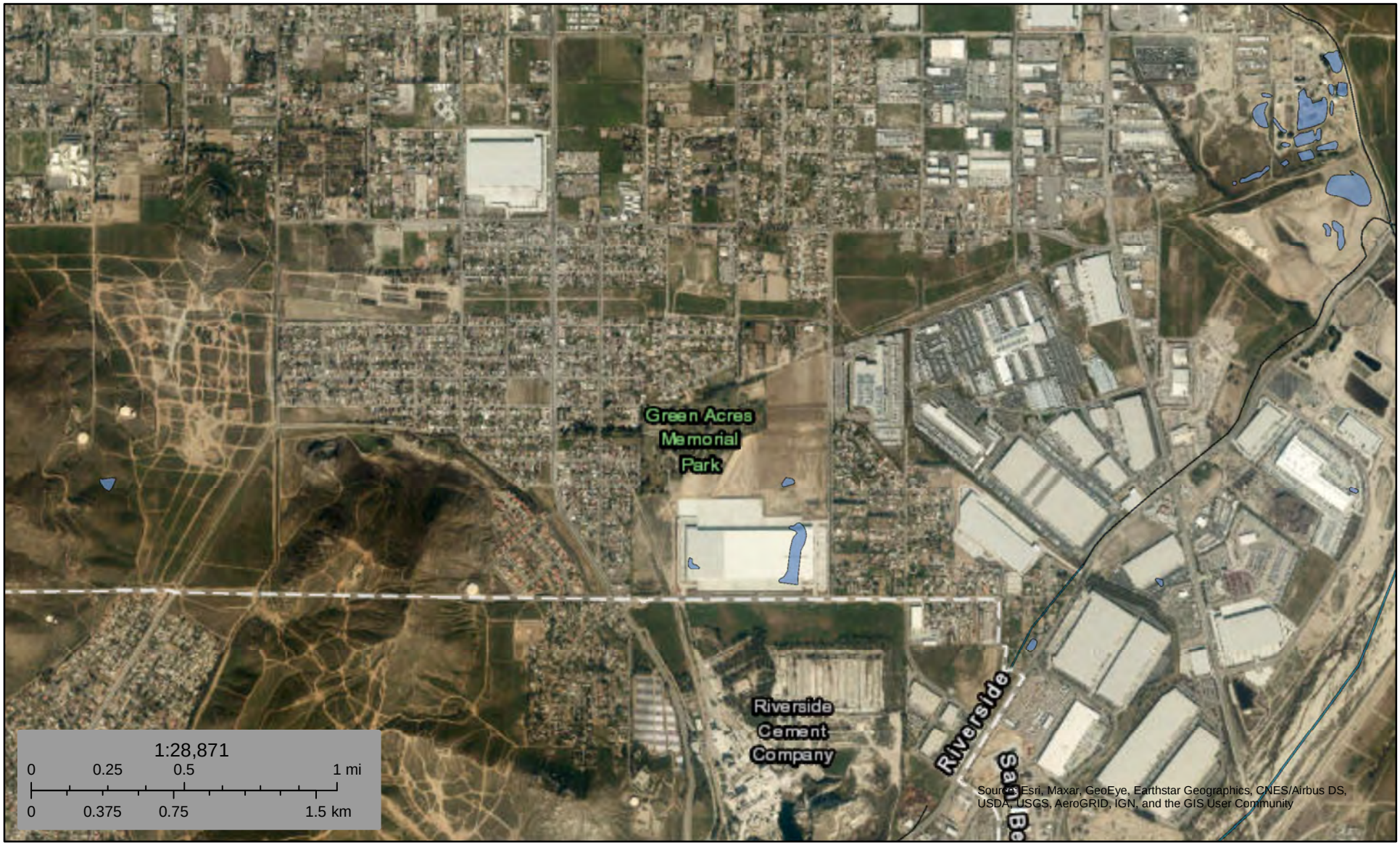
Photograph 12: California buckwheat slope where the proposed storm drain will connect into the basin.

Attachment C

Documentation

U.S. Fish and Wildlife Service
National Wetlands Inventory

Bloomington Business Park SP



July 22, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

U.S. Fish and Wildlife Service

National Wetlands Inventory

5th St. Basin

July 21, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Appendix J

Rare Plant Species Potential to Occur

Attachment J
Rare Plant Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Arenaria paludicola	marsh sandwort	FE/SE CRPR 1B.1	Perennial herb. Occurs in freshwater marshes and wet meadows. Elevation range less than 300 m. Flowering period May-Aug.	**None.** The project sites and off-site areas do not support freshwater marsh or wet meadow habitat.	**None.** The Specific Plan Area (SPA) does not support freshwater marsh or wet meadow habitat.
Berberis nevinii	Nevin's barberry	CE/FE CRPR 1B.1	Shrub. Occurs on steep, north-facing slopes or washes within chaparral, cismontane woodland, coastal scrub, and riparian scrub. Elevation range 70-825 m. Flowering period Mar-May.	**None.** The project sites and off-site areas do not support steep, north-facing slopes or washes	**None.** The SPA does not support steep, north-facing slopes or washes.
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE CRPR 1B.2	Annual herb. Occurs in coastal dunes, salt marshes and swamps. Elevation range 0-10 m. Flowering period Mar-Aug.	**None**. The project sites and off-site areas do not support coastal dunes, salt marshes, or swamps.	**None.** The SPA does not support coastal dunes, salt marshes, or swamps.
Chorizanthe parryi var. *parryi*	Parry's spineflower	CRPR 1B.1	Annual herb. Occurs in sandy soil on flats and foothills in mixed grassland, coastal sage scrub, and chaparral communities. Elevation range 90-800 m. Flowering period May-Jun.	**None.** Sandy soils are present. However, the project sites and off-site areas are heavily disturbed and do not support any native-dominated plant communities. See PTO for the SPA for additional details.	**None.** Sandy soils are present. However, the SPA is heavily disturbed and does not support suitable habitat. There are no recent records of this species within six miles of the SPA.
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	FE/SE CRPR 1B.1	Perennial herb. Occurs on sandy soils within river floodplains or terraced fluvial deposits. Elevation range 180-705 m. Flowering period May-Sep.	**None.** The project sites and off-site areas are not within a river floodplain and do not support terraced fluvial deposits.	**None.** The SPA is not within a river floodplain and does not support terraced fluvial deposits. There are no recent records of this species within seven miles of the SPA.

Appendix J (cont.)
Rare Plant Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Horkelia cuneata var. *puberula*	mesa horkelia	CRPR 1B.1	Perennial herb. Occurs in sandy or gravelly areas within chaparral, coastal sage scrub, and coastal mesas. Elevation range 70-870. Flowering period Mar-Jul.	**None.** Sandy soils are present. However, the project sites and off-site areas are heavily disturbed and do not support any native-dominated plant communities. See PTO for the SPA for additional details.	**None.** Sandy soils are present. However, the SPA is heavily disturbed and does not support any native-dominated plant communities
Lycium parishii	Parish's desert-thorn	CRPR 2B.3	Shrub. Occurs within sandy and rocky soils on slopes and in canyons with coastal scrub and desert scrub. Elevation below 1000 m. Flowering period Mar-Apr.	**None.** The project sites and off-site areas do not support slopes or canyons.	**None.** The SPA does not support slopes or canyons.
Malacothamnus parishii	Parish's bush-mallow	CRPR 1A	Shrub. Occurs within sandy and rocky soils on slopes and in canyons with chaparral and coastal scrub habitats. Elevation 305-455 m. Flowering period Jun-Jul.	**None.** The project sites and off-site areas do not support slopes or canyons.	**None.** The SPA does not support slopes or canyons.
Monardella pringlei	Pringle's monardella	CRPR 1A	Shrub. Occurs on sandy hillsides within coastal scrub habitat. Elevation 300-400 m. Flowering period Apr-Jun.	**None.** The project sites and off-site areas do not support sandy hillsides.	**None.** The SPA does not support sandy hillsides.
Senecio aphanactis	chaparral ragwort	CRPR 2B.2	Annual herb. Occurs on alkaline flats and dry, open, rocky areas within chaparral, cismontane woodland, and coastal scrub. Elevation 10-550 m. Flowering period Feb-May.	**None.** The project sites and off-site areas do not support alkaline soils or open rocky areas.	**None.** The SPA does not support alkaline soils or open rocky areas.
Sphenopholis obtusata	prairie wedge grass	CRPR 2B.2	Perennial grass. Occurs along rivers, springs, and alkaline desert seeps. Elevation 15-2625 m. Flowering period Apr-Jun.	**None.** The project sites and off-site areas do not support aquatic habitat.	**None.** The SPA does not support aquatic habitat.

Appendix J (cont.)
Rare Plant Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Symphyotrichum defoliatum	San Bernardino aster	CRPR 1B.2	Perennial herb. Occurs in vernally mesic soils within cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, grasslands, streams, springs, and disturbed ditches. Elevation range 0-2050 m. Flowering period Jul-Nov.	**None.** The project sites and off-site areas do not support vernally mesic soils.	**None.** The SPA does not support vernally mesic soils.

Source: HELIX (2021)

[1] Sensitive species reported within the Fontana quadrangle on CNDDB and CNPS databases.

[2] Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened.
CRPR = California Rare Plant Rank: 1A – presumed extinct; 1B – rare, threatened, or endangered in California and elsewhere; 2A – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere; 3 – more information on distribution, endangerment, ecology, and/or taxonomic validity is needed. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .
3 – not very endangered.

[3] Potential to Occur is assessed as follows: **None**: Habitat suitable for species survival does not occur on the Specific Plan Area, the Specific Plan Area is not within geographic range of the species, and/or the Specific Plan Area is not within the elevation range of the species; **Low**: Suitable habitat is present on the Specific Plan Area but of low quality and/or small extent. The species has not been recorded recently on or near the Specific Plan Area. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **Moderate**: Suitable habitat is present on the Specific Plan Area and the species was recorded recently near the Specific Plan Area; however, the habitat is of moderate quality and/or small extent. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **High**: Suitable habitat of sufficient extent is present on the Specific Plan Area and the species has been recorded recently on or near the Specific Plan Area but was not observed during surveys for the current project. However, focused/protocol surveys are not required or have not been completed; **Presumed Present**: The species was observed during focused surveys for the current project and is assumed to occupy the Specific Plan Area; **Presumed Absent**: Suitable habitat is present on the Specific Plan Area but focused surveys for the species were negative.

Appendix K

Sensitive Animal Species Potential to Occur

Attachment K
Sensitive Animal Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Invertebrates					
Bombus crotchii	Crotch bumble bee	SCE	Coastal California east to the Sierra-Cascade crest and south into Mexico. Occurs within open grassland and scrub habitats. Species' food genera include *Antirrhinum* sp., *Phacelia* sp., *Clarkia* sp., *Dendromecon* sp., *Eschscholzia* sp., and *Eriogonum* sp.	**Low.** The majority of the project sites and off-site areas do not support suitable grassland or scrub habitat. There is a small area mapped as disturbed California buckwheat scrub at the southeastern end of the Phase 1/2 off-site area. Potential food source was located within this area (*Eriogonum fasciculatum*). This species has not been recorded recently within eight miles of the project sites and off-site areas.	**None.** The Specific Plan Area (SPA) does not support suitable grassland or scrub habitat. This species' food source was not observed.
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	FE	Found only within the Delhi Sands formation in San Bernardino and Riverside Counties. Requires wholly or partly consolidated dunes with sparse vegetation.	**None.** Project Site 1 does not support Delhi sands. The southwestern portions of Project Sites 2 and 3 and the majority of Project Site 4 support mapped Delhi sand. Mapped Delhi sand is also present within the Phase 1/2 off-site areas at the southern end of Laurel Avenue and Locust Avenue, and the central portion of Linden Avenue. The habitat assessment concluded no suitable Delhi sands flower-loving fly habitat is located on Project Sites 1 through 4 or the Phase 1/2 off-site areas .	**None.** The southwestern portion of the SPA supports a Delhi sand. The habitat assessment concluded the SPA does not support suitable Delhi sands flower-loving fly habitat.

Appendix K (cont.)
Sensitive Animal Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Fish					
Catostomus santaanae	Santa Ana sucker	FT	Found within south coastal streams of the Los Angeles Basin. Prefers streams with sand-rubble-boulder bottoms with cool clear water.	**None.** The project sites and off-site areas do not support streams.	**None.** The SPA does not support streams.
Gila orcuttii	arroyo chub	SSC	Prefers slow moving streams or backwaters with sand or mud bottoms. Streams are typically deeper than 40 centimeters (16 inches). Primary food source is aquatic vegetation and invertebrates.	**None.** The project sites and off-site areas do not support streams.	**None.** The SPA does not support streams.
Oncorhynchus mykiss irideus	steelhead - southern California DPS	FE	Typically migrate up freshwater streams from saltwater or brackish water to spawn. Southern steelhead have a greater tolerance to warmer water.	**None.** The project sites and off-site areas do not support streams.	**None.** The SPA does not support streams.
Reptiles					
Anniella stebbinsi	southern California legless lizard	SSC	Occurs in moist warm loose soil with plant cover. May be found in coastal sand dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Requires soil moisture.	**None.** The project sites and off-site areas do not support suitable habitat with necessary soil moisture for this species.	**None.** The SPA does not support suitable habitat with necessary soil moisture for this species.

Appendix K (cont.)
Sensitive Animal Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Arizona elegans occidentalis	California glossy snake	SSC	Most common in desert habitats but also occur in chaparral, sagebrush, valley-foothill hardwood woodland, pine-juniper woodland, and annual grass. Prefers open sandy areas with scattered brush, but also found in rocky areas.	**None.** The majority of the project sites and off-site areas do not support chaparral, sagebrush, valley-foothill woodland, or annual grassland habitats. There is a small area mapped as disturbed California buckwheat scrub at the southeastern end of the Phase 1/2 off-site area. However, this area is small (0.1 acre) and would not be expected to support this species due to heavy disturbance and small size. This species was most recently recorded within the vicinity of the project sites and off-site areas in 2000, approximately 2.8 miles to the northeast.	**None.** The SPA does not support chaparral, sagebrush, valley-foothill woodland, or annual grassland habitats.

Appendix K (cont.)
Sensitive Animal Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Phrynosoma blainvillii	coast horned lizard	SSC	Coastal sage scrub and open areas in chaparral, oak (*Quercus* sp.) woodlands, and coniferous forests with sufficient basking sites, adequate scrub cover, and areas of loose soil; require native ants, especially harvester ants (*Pogonomyrmex* spp.), and are generally excluded from areas invaded by Argentine ants (*Linepithema humile*).	**None.** The majority of the project sites and off-site areas do not support coastal sage scrub, oak woodlands, or coniferous forests. There is a small area mapped as disturbed California buckwheat scrub at the southeastern end of the Phase 1/2 off-site area. However, this area is small (0.1 acre) and would not be expected to support this species due to heavy disturbance and small size. The observation of this species was recorded in 1999, approximately, 1,200 feet to the west of the project sites and off-site areas. The record notes that coast horned lizard in this location was possibly extirpated due to development in the area.	**None.** The SPA does not support chaparral, oak woodlands, or forest habitats.
Birds					
Agelaius tricolor	tricolored blackbird	SCE/SSC	Breeds in dense stands of cattails (*Typha* sp.) or bulrushes (*Schoenoplectus* sp./*Scirpus* sp.) located within large freshwater marshes. Forages in adjacent open habitats, such as agricultural fields, pastures, or grasslands.	**None.** The project sites and off-site areas do not support dense cattails or bulrushes.	**None.** The SPA does not support dense cattails or bulrushes.

Appendix K (cont.)
Sensitive Animal Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Athene cunicularia	burrowing owl	SSC	Typical habitat is grasslands, open scrublands, agricultural fields, and other areas where there are ground squirrel burrows or other areas in which to burrow.	**Presumed Absent.** No suitable burrows were observed on Project Sites 1 or 3, or off-site areas. This species is presumed absent from Project Sites 2 and 4 since focused surveys were negative.	**Low.** The SPA supports small areas of disturbed land and non-native vegetation where ground squirrels may burrow. However, the potentially suitable habitat consists of isolated patches mostly within rural residential lots and small ranches. This species was observed in 2017, approximately 0.5 mile to the southwest of the SPA.
Polioptila californica californica	coastal California gnatcatcher	FT/SSC	Occurs in coastal sage scrub and very open chaparral.	**None.** The majority of the project sites and off-site areas do not support coastal sage scrub or chaparral habitats. There is a small area mapped as disturbed California buckwheat scrub at the southeastern end of the Phase 1/2 off-site area. However, this area is small (0.1 acre) and would not be expected to support this species due to heavy disturbance and small size. This species was observed within critical habitat in 1995, approximately 1,200 feet to the south.	**None.** The SPA does not support coastal sage scrub or chaparral habitats.

Appendix K (cont.)
Sensitive Animal Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Vireo bellii pusillus	least Bell's vireo	FE/SE	Inhabits riparian woodland and is most frequent in areas that combine an understory of dense, young willows or mule fat with a canopy of tall willows.	**None.** The project sites and off-site areas do not support riparian woodland habitat.	**None.** The SPA does not support riparian woodland habitat.
Mammals					
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	SSC	Herbaceous openings within coastal sage scrub, chaparral, grasslands, and desert scrub. Often associated with sandy, rocky, or gravelly substrates.	**None.** The majority of the project sites and off-site areas do not support coastal sage scrub, chaparral, grasslands, or desert scrub. There is a small area mapped as disturbed California buckwheat scrub at the southeastern end of the Phase 1/2 off-site area. However, this area is small (0.1 acre) and would not be expected to support this species due to heavy disturbance and small size. The observation of this species was recorded in 1999, approximately, 0.5 mile to the northwest of the project sites and off-site areas. The record notes that northwestern San Diego pocket mouse in this location was possibly extirpated due to development in the area.	**None** The SPA does not support coastal sage scrub, chaparral, grasslands, or desert scrub.

Appendix K (cont.)
Sensitive Animal Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Dipodomys merriami parvus	San Bernardino kangaroo rat	FE/SSC	Generally associated with alluvial fan sage scrub, but also occurs in sage scrub, chaparral, and grassland in proximity to alluvial fan sage scrub habitats.	**None.** The project sites and off-site areas do not support alluvial fan sage scrub and is not in proximity to this habitat type.	**None.** The SPA does not support alluvial fan sage scrub and is not in proximity to this habitat type.
Lasiurus xanthinus	western yellow bat	SSC	Roosts in trees and are commonly found in palms and cottonwoods. Typically forages over water and among trees within riparian, desert riparian, desert wash, and palm oasis habitats.	**Moderate.** The project sites and off-site areas support some roosting and foraging habitat based on presence of the palm nursery and other trees located throughout. See PTO for the SPA for additional details.	**Moderate.** The SPA supports some roosting and foraging habitat based on presence of the palm nursery and other trees located throughout. This species was recorded in CNDDB in 1996, approximately 2.5 miles northwest of the SPA.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	SSC	Occurs primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present.	**None.** The project sites and off-site areas do not support suitable open habitat for this species. These areas consist of mostly existing development, including rural residential homes and plant nurseries.	**Low.** The SPA supports isolated areas of potentially suitable habitat for this species. This species was observed in 2014 during the habitat assessment for the West Valley Logistics Center Project, approximately 0.5 mile to the southwest of the SPA.

Appendix K (cont.)
Sensitive Animal Species Potential to Occur[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]	
				Project Sites 1 through 4, Phase 1/2 Off-site Areas	Specific Plan Area (including Off-site Specific Plan Area)
Nyctinomops femorasaccus	pocketed free-tailed bat	SSC	Roosts in crevices within high rocky cliffs, caverns, or buildings. Typically forages over water and among trees within arid habitats, such as pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	**Low.** Residential buildings and other structures located throughout the project sites and off-site areas may support suitable roosting habitat for this species. Nursery palms and other trees may provide suitable foraging habitat. See PTO for the SPA.	**Low.** Residential buildings and other structures located throughout the SPA may support suitable roosting habitat for this species. Nursery palms and other trees may provide suitable foraging habitat. This species was recorded in 1985, approximately 3.0 miles to the northwest of the SPA.

[1] Sensitive species reported within the Fontana quadrangle on CNDDB.

[2] Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; CE = Candidate Endangered; CT = Candidate Threated; FP = Fully Protected; SSC = State Species of Special Concern.

[3] Potential to Occur is assessed as follows. **None**: Species is so limited to a particular habitat that it cannot disperse across unsuitable habitat (*e.g.* aquatic organisms), and habitat suitable for its survival does not occur on the Study Area (Project Sites 1-4, Off-site Areas, and other areas within the Specific Plan Area); **Not Expected**: Species moves freely and might disperse through or across the Study Area, but suitable habitat for residence or breeding does not occur on the Study Area (includes species recorded during surveys but only as transients); **Low**: Suitable habitat is present on the Study Area but of low quality and/or small extent. The species has not been recorded recently on or near the Study Area. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **Moderate**: Suitable habitat is present on the Study Area and the species was recorded recently near the Study Area; however, the habitat is of moderate quality and/or small extent. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **High**: Suitable habitat of sufficient extent for residence or breeding is present on the v and the species has been recorded recently on or near the Study Area but was not observed during surveys for the current project. However, focused/protocol surveys are not required or have not been completed; **Presumed Present**: The species was observed during biological surveys for the current project and is assumed to occupy the Study Area; **Presumed Absent**: Suitable habitat is present on the Study Area but focused/protocol surveys for the species were negative.

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Appendix L

West Valley Logistics Center
Jurisdictional Delineation Report

WEST VALLEY LOGISTICS CENTER

City of Fontana, California

DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS

Prepared For:

Hillwood Investment Properties
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Ontario, CA 91764
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February 6, 2014

JN 134267

RBF CONSULTING
A Baker Company

WEST VALLEY LOGISTICS CENTER

CITY OF FONTANA, CALIFORNIA

Delineation of State and Federal Jurisdictional Waters

The undersigned certify that this report is a complete and accurate account of the findings and conclusions of a jurisdictional "waters of the U.S." (including wetlands) and "waters of the State" determination for the above-referenced project.

Chris Johnson, PWS
Regulatory Specialist
Natural Resources/Regulatory Permitting

Richard Beck, PWS, CEP, CPESC
Director of Regulatory Services
Natural Resources/Regulatory Permitting

February 6, 2014

Executive Summary

Introduction: At the request of Hillwood Investment Properties, RBF Consulting (RBF) has prepared this Delineation of Jurisdictional Waters for the West Valley Logistics Center Project (project), located in the City of Fontana, San Bernardino County, California.

Methods: The field work for this delineation was conducted on February 26 and March 27, 2013. This delineation documents the regulatory authority of the U.S. Army Corps of Engineers (Corps), Santa Ana Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW) pursuant to the Federal Clean Water Act (CWA), California Porter-Cologne Water Quality Control Act, and California Fish and Game Code[1] respectively.

Results: The Project Study Area contains a total of 0.27-acre (2,564 linear feet) of surface waters of the State of which a total of 0.05-acre constitute wetlands. Placement of fill and/or alteration within these waters is subject to Regional Board and CDFW jurisdiction and approval; therefore, associated impacts must be avoided, minimized, and fully mitigated pursuant to the California Water Code §§ 13000 et.seq and Fish and Game Code. Table A-1 identifies the total jurisdiction on site of each regulatory agency.

TABLE A-1. Total On-Site Jurisdictional Area

Jurisdictional Feature	Corps	Regional Board	CDFW	
	Non-Jurisdictional On-Site Acreage[2]	On-Site Acreage	On-Site Acreage	
		Surface Waters	Adjacent Riparian Vegetation	Unvegetated Streambed
Drainage A	0.09	0.09	-	0.09
Drainage A1	0.005	0.005	-	0.005
Drainage B	0.11	0.11	-	0.11
Drainage B1	0.005	0.005	-	0.005
Wetland 1	0.05	0.05	0.21	0.05
Total	**0.27**	**0.27**	**0.21**	**0.27**

[1] The project area was surveyed pursuant to the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (Corps 2008); the Practices for Documenting Jurisdiction under Section 404 of the CWA Regional Guidance Letter (Corps 2007); Minimum Standards for Acceptance of Preliminary Wetland Delineations (Corps 2001); and the Field Guide to Lake and Streambed Alteration Agreements Section 1600-1607 (CDFG 1994).

[2] Surface waters documented on-site are isolated and therefore not regulated by the Corps. It is RBF's opinion that the aquatic resources on-site are intrastate isolated waters with no apparent interstate or foreign commerce connection. Non-jurisdictional acreages have been shown so that Corps concurrence can be obtained.

Conclusion: The project applicant must obtain the following regulatory approvals if construction activities are proposed within the identified jurisdictional areas: Corps CWA Jurisdictional Determination documenting isolated conditions and lack of jurisdictional authority; Regional Board Report of Waste Discharge (ROWD) pursuant to California Water Code Section 13260; and, CDFW Section 1602 Streambed Alteration Agreement (SAA)[3]. It should be noted that while an Approved Determination/Concurrence from the Corps is required for the ROWD, it is also an important confirmation documenting that no federal jurisdiction is located within the boundaries of the project site.

This report presents RBF's best effort at determining the jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies. However, as with any jurisdictional delineation, only the regulatory agencies can make a final determination of jurisdiction. Refer to Sections 1-6 for a complete discussion.

[3] Other approvals (in-lieu of an SAA) may be acquired from the Fish and Wildlife based on a formally-submitted notification package.

Table of Contents

LIST OF EXHIBITS

APPENDIX

LIST OF ACRONYMS

CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CWA	Clean Water Act
DBH	Diameter at Breast Height
EPA	Environmental Protection Agency
FAC	Facultative Vegetation
FACU	Facultative Upland Vegetation
FACW	Facultative Wetland Vegetation
GPS	Ground Positioning System
IP	Individual Permit
LF	Linear Feet
MSL	Mean Sea Level
NWP	Nationwide Permit
OBL	Obligate Wetland Vegetation
OHWM	Ordinary High Water Mark
RBF	RBF Consulting
RPW	Relatively Permanent Waters
SAA	Streambed Alteration Agreement
SBBM	San Bernardino Base and Meridian
SWANCC	Solid Water Agency of Northern Cook County
TNW	Traditional Navigable Water
UPL	Obligate Upland Vegetation
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WoUS	Waters of the United States

Section 1 Introduction and Purpose

This delineation has been prepared for Hillwood Investment Properties in order to delineate the U.S. Army Corps of Engineers' (Corps), Santa Ana Regional Water Quality Control Board's (Regional Board), and California Department of Fish and Wildlife Inland Deserts Region's (CDFW) jurisdictional authority located within the West Valley Logistics Center Project (project site). The field work for this delineation was conducted on February 26 and March 27, 2013.

The project site is generally located north of State Route 60, south of Interstate 10, west of Interstate 215, and east of Interstate 15 on the eastern foothills of the Jurupa Mountains in the City of Fontana, San Bernardino County, California. The project site is depicted on the Fontana United States Geological Survey (USGS) 7.5-minute quadrangle within Section 33, Township 1 south, Range 5 west Specifically, proposed parcels 1 thru 6 are located west of Locust Avenue, east of Alder Avenue, north and south of Armstrong Road, south of Jurupa Avenue, and north of the Riverside County boundary. Proposed parcel 7 is located on the southeast corner of the intersection of Jurupa Avenue and Locust Avenue, north of the Southern California Edison (SCE) corridor. Refer to Exhibit 1, *Regional Vicinity,* Exhibit 2, *Site Vicinity and* Exhibit 3*, Project Site.*

This delineation has been designed to document the authority of the regulatory agencies, explain the methodology undertaken by RBF Consulting (RBF) to document jurisdictional authority, and to support the findings made by RBF within the boundaries of the project site. This report presents our best effort at determining the jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies; however, only the regulatory agencies can make a final determination of jurisdictional boundaries.

1.1 PROJECT SITE BACKGROUND

The project site has been subject to various types of human disturbance including horseback riding, hiking, off-road vehicle use, and dumping of trash and debris. The project site primarily consists of vacant, undeveloped land previously used for agricultural activities.

1.2 PROJECT DESCRIPTION

Hillwood Investment Properties proposes to develop seven (7) light industrial buildings on the project site. The project site includes nine (9) parcels and one lettered lot of which eight (8) are existing legal parcels. The 7 light industrial buildings would total 214.89-acres on the 298-acre project site.

RBF A Baker Company

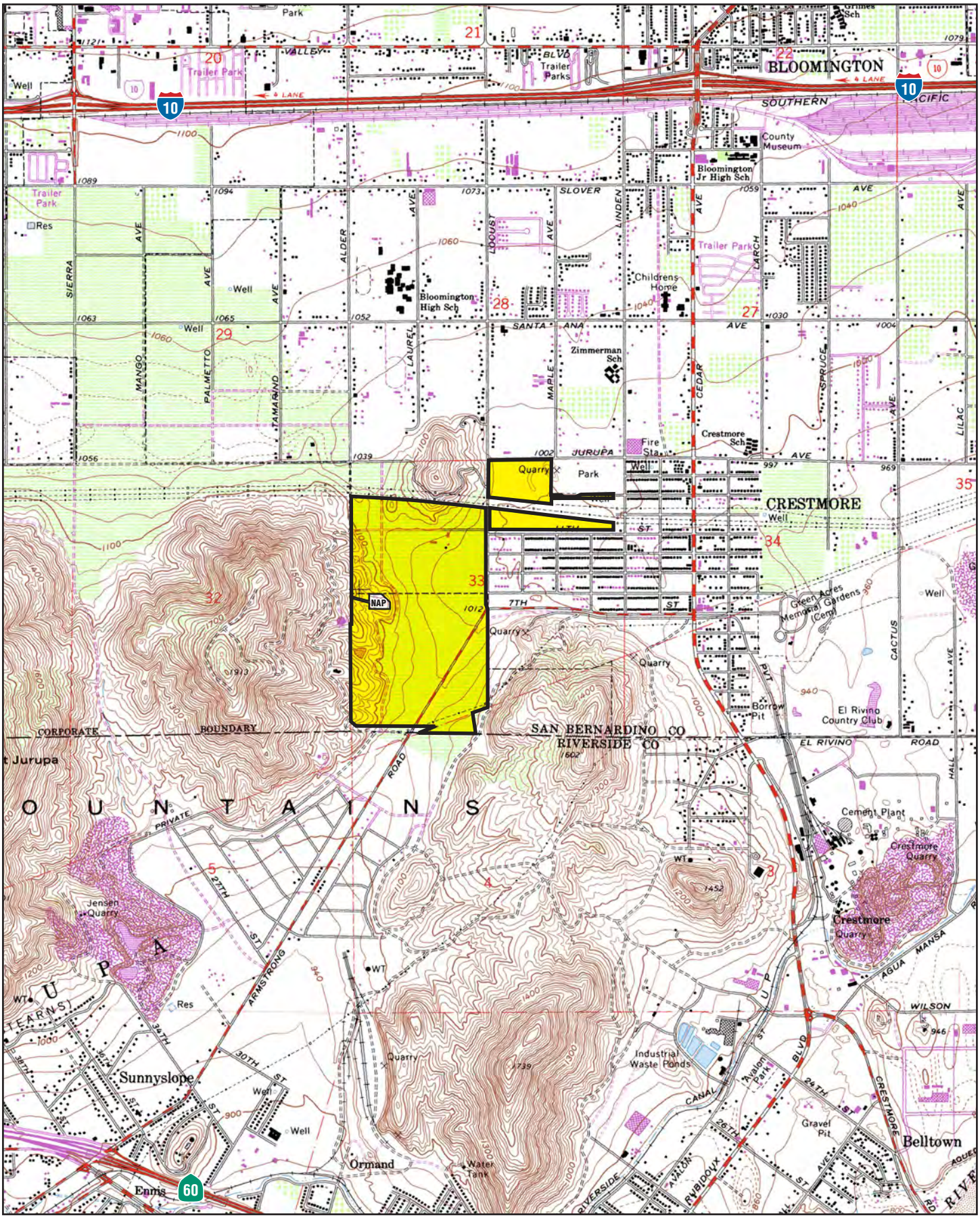
0 5 11 miles
APPROXIMATE

4/1/14 JN 134267-19191 MAS

WEST VALLEY LOGISTICS CENTER

Regional Vicinity

Exhibit 1



SOURCE: USGS Fontana, CA Quadrangle, Photorevised 1980.

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A Baker Company

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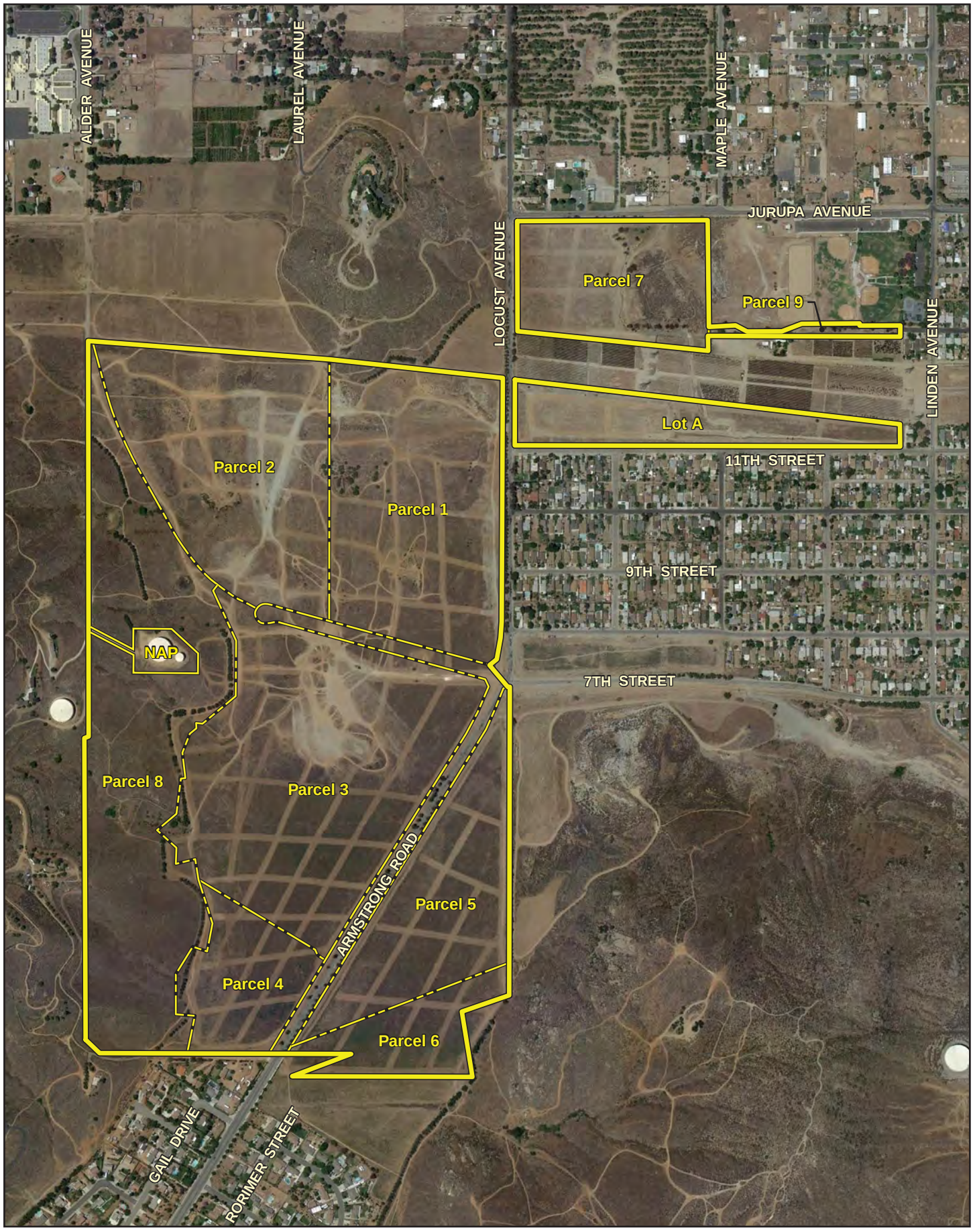
4/1/13 JN 134267-19191 MAS

WEST VALLEY LOGISTICS CENTER

Site Vicinity

Exhibit 2



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WEST VALLEY LOGISTICS CENTER

Project Site

Exhibit 3

Section 2 Methodology

Analysis presented in this document is supported by field surveys and verification of current conditions conducted on February 26 and March 27, 2013. While in the field, jurisdictional areas were recorded onto a base map at a scale of 1"=80' using the topographic contours and visible landmarks as guidelines. Data points were obtained while walking the site with a Garmin 62 Global Positioning System (GPS) Map62 in order to record and identify specific widths for the ordinary high water marks (OHWM), soil pit locations, picture point locations, and pertinent jurisdictional features. This data was then transferred via USB port as a .shp file and added to the project's jurisdictional map. The jurisdictional map was prepared in ESRI ArcInfo Version 10.

2.1 SUMMARY OF REGULATIONS

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. CDFW regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act. For a detailed summary of regulations, refer to Appendix A.

2.1.1 FEDERAL JURISDICTIONAL WATERS

Generally, the Corps and EPA will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)
- Wetlands that directly abut such tributaries

The Corps and EPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary itself and the

functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters. It should be noted that a significant nexus includes consideration of hydrologic and ecologic factors

The Corps and EPA generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

2.1.2 STATE JURISDICTIONAL AREAS

2.1.2.1 California Regional Water Quality Control Boards

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters.

2.1.2.2 California Department of Fish and Wildlife Jurisdiction

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state. The Fish and Wildlife's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation.

Section 3 Literature Review

Review of relevant literature and materials often aids in preliminarily identifying areas that may fall under an agency's jurisdiction. A summary of RBF's literature review is provided below (refer to Section 7.0 for a complete list of references used during the course of this delineation). Copies of documentation are also contained in Appendix C, *Documentation*.

3.1 WATERSHED REVIEW

The project site is located within the Santa Ana Watershed (HUC 18070203). More specifically the project in situated within Hydrologic Sub-Area 801.27 (Middle Santa Ana River). The Santa Ana River Watershed is Southern California's largest watershed spanning over 100 miles and containing over 50 tributaries. Its headwaters are located high above the valley floors of the Inland Empire, in the peaks of the San Bernardino National Forest. The watershed is divided into two sections the Upper and Lower Watershed. Between the San Gorgonio Peak east of Big Bear and Prado Basin at the 91 and 71 freeways is the Upper Watershed. South of the Prado Basin to the Pacific Ocean is the Lower Watershed.[4]

3.2 LOCAL CLIMATE

The region has a year-round Mediterranean climate or semi-arid climate, with warm, sunny, dry summers and cool, rainy, mild winters. Average annual precipitation ranges from 12 inches per year in the coastal plain to 18 inches per year in the inland alluvial valleys, reaching 40 inches or more in the San Bernardino Mountains. Most of the precipitation occurs between November and March in the form of rain with variable amounts of snow in the higher elevations.

The climatological cycle of the region results in higher surface water flows in the spring and early summer and lower flows during the dry season. Winter and spring floods generated by storms are not uncommon in wet years. Similarly, during the dry season, infrequent summer storms can cause torrential floods in local streams.

3.3 USGS TOPOGRAPHIC QUADRANGLE

The project site is located within Section 33, Township 1 South, Range 5 West, San Bernardino Base Meridian of the USGS *Fontana, California* quadrangle. On-site topography ranges from approximately 1,100 to 1,080 feet above msl, and slopes gradually to the east. The project site is comprised of two areas: the larger portion (Parcels 1-6, 8) of the project site is located at the base of the Jurupa Mountains west of Locust Ave and is comprised entirely of agricultural uses, while the smaller portion (Parcels 7 and 9) of the project site is

[4] Santa Ana River Watershed Alliance, 2013

located immediately south of Jurupa Ave and according to the topographic map portions of this area once operated as a quarry.

According to the topographic map, the majority of the site is comprised of agricultural uses. No blue-line streams were identified on the topographic map. Surrounding uses consisted of residential uses and natural open space. The Santa Ana River is located more than 2.5 miles to the southeast.

3.4 AERIAL PHOTOGRAPH

Prior to the field visits, RBF reviewed a current aerial photograph dated March 2013 from Google Earth Imaging for the project site. Aerial photographs can be useful during the delineation process, as the photographs often indicate drainages and vegetation (i.e., riparian vegetation) present within the boundaries of the project site (if any).

According to the aerial photograph the project site is undeveloped and significantly disturbed. The aerial photograph also suggests that the project site is routinely disked and maintained. The site is undeveloped with the exception of a water reservoir and Armstrong Avenue which traverses the project site north to south in the southeast portion of the larger project site. The use of vegetation windbreaks is visible around the site's periphery. The remnant of a past agricultural residence/structure is noted west of Parcel 1 toward the northern boundary of the larger project site. No drainages or ponds were visible on the aerial photograph as the project is dominated by upland conditions. Residential uses are visible to the north, south, and east. Natural open space can be observed to the west of the project site.

3.5 SOIL SURVEY

On-site and adjoining soils were researched prior to the field visits using the U.S. Department of Agriculture, Soil Conservation Service, Soil Survey for the San Bernardino Area, California, as well as the USDA/NRCS Custom Soil Resource Report. The presence of hydric soils is initially investigated by comparing the mapped soil series for the site to the County list of hydric soils. Soil surveys furnish soil maps and interpretations originally needed in providing technical assistance to farmers and ranchers; in guiding other decisions about soil selection, use, and management; and in planning, research, and disseminating the results of the research. In addition, soil surveys are now heavily utilized in order to obtain soil information with respect to potential wetland environments and jurisdictional areas (i.e., soil characteristics, drainage, and color). The following soil series have been reported on-site:

Delhi Fine Sand (Db)

Approximately 201.3-acres of the 298-acres of the project site consist of Delhi Fine Sands. The Delhi Fine Sand map unit consists of somewhat excessively drained soils with parent material consisting of sandy alluvium derived from granite. These soils are found on alluvial fans, with an elevation for this map unit at 30 to 1,400 feet. Mean annual precipitation is 10-16 inches. The mean annual air temperature is 59 to 64 degrees F with a frost-free period of 225 to 310 days. In a typical profile 0 to 10 inches is fine sand and 18 to 60 inches is sand. From 0 to 18 inches, the soils are pale-brown (10YR 6/3) fine sand, brown (10YR 5/3) when moist.

The depth to restrictive feature is more than 80 inches and a depth to water table more than 80 inches. This soil drainage class is somewhat excessively drained with no flooding and no ponding as identified in the soil survey. The available water capacity is low (about 4.4 inches). The map unit composition consists of minor components of unnamed soils (10%) and Tujunga loamy sand (5%) soils (3%). Runoff is very slow and the hazard of soiling blowing is moderate. In unprotected areas, however, the hazard of soil blowing is high. Both Drainage A and Wetland 1 are found within this mapping unit.

Quarries and Pits (GP)

The Quarries and Pits map unit consists of 50% pits and 50% quarries. In a typical profile 0 to 6 inches is very gravelly coarse sand and 6 to 60 inches is extremely gravelly sand, extremely gravelly coarse sand, and very gravelly coarse sand. Parent material consists of sandy and gravelly alluvium. This soil series was mapped within Parcel 7, south of Jurupa Avenue. No observations of this soils series or existing mining observations were documented during the site visit.

Cieneba-Rock Outcrop Complex (Cr)

Approximately 12.0-acres of the 298-acres of the project site consists of the Cieneba-Rock Outcrop Complex. The map unit consists of somewhat excessively drained soils with parent material consisting of residuum weathered from granite. These soils are found on hills, with an elevation for this map unit at 500 to 4,000 feet. Mean annual precipitation is 8-35 inches. The mean annual air temperature is 45 to 64 degrees F with a frost-free period of 100 to 300 days. In a typical profile 0 to 8 inches is sandy loam, 8 to 14 inches is sandy loam, and 14 to 18 inches is weathered bedrock. The map unit composition consists of Cieneba and similar soils (60%), Rock Outcrop (30%), and minor components (10%).

The depth to restrictive feature is 14 to 18 inches to paralithic bedrock and a depth to water table more than 80 inches. This soil drainage class is somewhat excessively drained with no flooding and no ponding as identified in the soil survey. The available water capacity is very

low (about 1.4 inches). Runoff is rapid and the hazard of erosion is moderate is soils are burned over or overgrazed.

Cieneba Sandy Loam 9 to 15% (CnD)

Approximately 43.3-acres of the 298-acres of the project site consists of the Cieneba Sandy Loam map unit. This map unit is comprised of somewhat excessively drained soils with parent material consisting of residuum weathered from granite. These soils are found on hills, with an elevation for this map unit at 500 to 4,000 feet. Mean annual precipitation is 12-35 inches. The mean annual air temperature is 57 to 64 degrees F with a frost-free period of 200 to 300 days. In a typical profile 0 to 8 inches is sandy loam, 8 to 14 inches is sandy loam, and 14 to 18 inches is weathered bedrock. From 0 to 8 inches, the soils are brown (10YR 5/3) sandy loam, dark brown (10YR 3/3) when moist; weak, fine, granular structure. From 8 to 14 inches soils are pale-brown (10YR 6/3) sandy loam, brown (10YR 5/3) when moist; weak, fine subangular blocky structure.

The depth to restrictive feature is 14 to 18 inches to paralithic bedrock and a depth to water table more than 80 inches. This soil drainage class is somewhat excessively drained with no flooding and no ponding as identified in the soil survey. The available water capacity is very low (about 1.4 inches). The map unit composition consists of minor components of unnamed soils (5%) and Rick Outcrop (5%). Runoff is rapid and the erosion hazard is moderate if the soils are not left bare. Soils in this complex are used for watershed and grazing during the spring. This soil series is located along the base of the Jurupa Mountains near the projects western border.

Hanford Coarse Sandy Loam 9-15% (HaD)

Approximately 13.2-acres of the 298-acres of the project site consists of the Hanford Coarse Sandy Loam map unit. This map unit consists of well drained soils with parent material consisting of alluvium derived from granite. These soils are found on alluvial fans, with an elevation for this map unit at 150 to 900 feet. Mean annual precipitation is 10-20 inches. The mean annual air temperature is 63 degrees F with a frost-free period of 250 to 280 days. In a typical profile 0 to 12 inches is sandy loam and 12 to 60 inches is fine sandy loam, sandy loam, and coarse sandy loam. From 0 to 12 inches, soils are pale-brown (10YR 6/3) sandy loam, brown (10YR 4/3) when moist; massive; slightly hard, friable, nonsticky and nonplastic; many very fine and fine roots; many fine and fine, tubular and interstitial pores.

The depth to restrictive feature is more than 80 inches and a depth to water table more than 80 inches. This soil drainage class is well drained with no flooding and no ponding as identified in the soil survey. The available water capacity is very high (about 20.3 inches). The map unit composition consists of minor components of Greenfield sandy loam (10%) and Ramona sandy loam (5%). Runoff is medium and the erosion hazard is medium to high

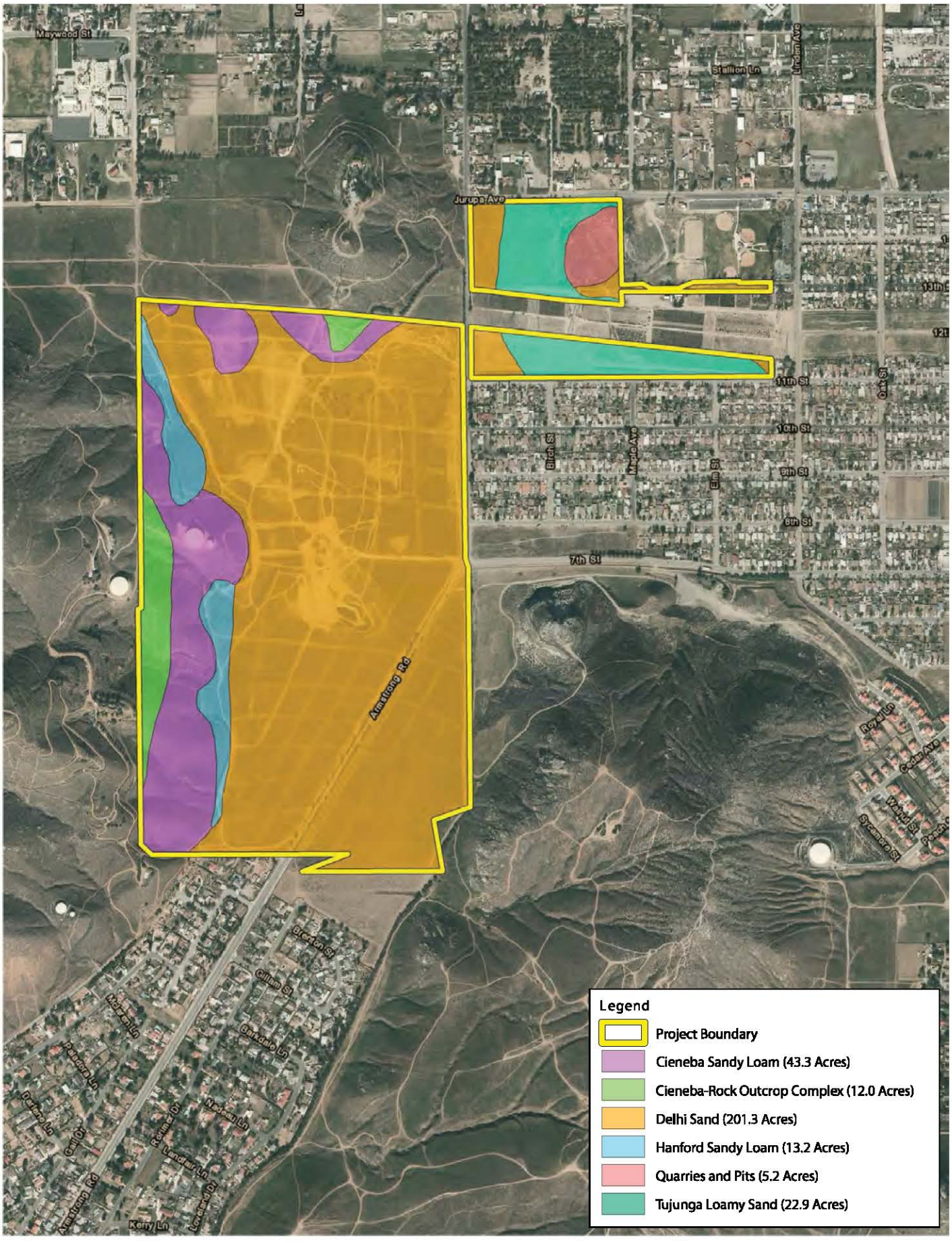
if the soil is left without plant cover. This soil series is located along the base of the Jurupa Mountains near the projects western border.

Tujunga Loamy Sand 0-5% (TuB)

Approximately 22.9-acres of the 298-acres of the project site consists of the Tujunga Loamy Sand map unit. This map unit consists of somewhat excessively drained soils with parent material consisting of sandy alluvium derived from granite. These soils are found on alluvial fans, with an elevation for this map unit at 10 to 2,500 feet. Mean annual precipitation is 10-25 inches. The mean annual air temperature is 59 to 64 degrees F with a frost-free period of 280 to 350 days. In a typical profile 0 to 18 inches is gravelly loamy sand and 18 to 60 inches is loamy sand, coarse sand and loamy coarse sand. From 0 to 6 inches, soils are brown (10YR 5/3) loamy sand, dark brown (10YR 4/3) when moist; single grained; loose when dry or moist. From 6 to 18 inches soils are pale-brown (10YR 6/3) coarse sand, brown (10YR 5/3) when moist; single grained; loose when dry or moist.

The depth to restrictive feature is more than 80 inches and a depth to water table more than 80 inches. This soil drainage class is somewhat excessively drained with rare flooding and no ponding as identified in the soil survey. The available water capacity is high (about 10.0 inches). The map unit composition consists of minor components of unnamed soils (5%) and Tujunga gravelly loamy sand (5%) and Hanford sandy loam (5%). Runoff is slow to very slow and the erosion hazard from water is slight. This soil series is located within Parcel 7 and also underlies the flood detention basin located north of 11th Street. Drainages B and B1 are located within this mapping unit.

According to the Soil Survey, the project site has some potential to have hydric soil characteristics (refer to Appendix C, *Documentation* and Exhibit 4, *Soils Map* for more information).



SOURCE: Eagle Aerial 2012, NRCS Soil Data Mart.

RBF A Baker Company

0 600 1,250'

4/3/13 JN 134267-19191 MAS

WEST VALLEY LOGISTICS CENTER

Soils Map

Exhibit 4

3.6 HYDRIC SOILS LIST OF CALIFORNIA

RBF reviewed the Hydric Soils List of California, provided by the Natural Resources Conservation Service, in an effort to verify whether or not on-site soils are considered to be hydric. It should be noted that lists of hydric soils along with soil survey maps are good off-site ancillary tools to assist in wetland determinations, but they are not a substitute for on-site investigations. According to the soils list two (2) on-site soils are listed as hydric, the Delhi Fine Sand and Tujunga Loamy Sand 0-5%. According to the hydric soils list, the Delhi Fine Sands may exhibit hydric soil indicators when found within depressions. Within the Tujunga Loamy Sand mapping unit the landform feature where hydric soil indicators may be present are located in drainageways. It should be noted that both soils identified as hydric pursuant to the hydric soils list are somewhat excessively drained soils with no frequency of ponding.

3.7 NATIONAL WETLANDS INVENTORY

RBF reviewed the U.S. Fish and Wildlife Service's National Wetland Inventory maps. No wetland features were noted within the project area.

3.8 FLOOD ZONE

RBF searched the Federal Emergency Management Agency website for flood data for the project site. Based on the Flood Insurance Rate Map No. 06065C0045G flood hazard information was not available for properties in the vicinity of the project site that are outside of Riverside County.

Section 4 Site Conditions

RBF regulatory specialist Chris Johnson and biologist Travis McGill visited the project site from approximately 8:00 a.m. to 3:00 p.m. on February 26, and March 27, 2013 to verify existing conditions and document potential jurisdictional areas. Temperatures during the site visits were in the low 70's (degrees Fahrenheit) with light and variable winds. RBF encountered no limitations during the site visit. Refer to Exhibits 5A and 5B, *On-Site Photographs*, for representative photographs taken throughout the project site.

4.1 NON-WETLAND JURISDICTIONAL FEATURES

4.1.1 Drainage A

Drainage A is an ephemeral drainage that traverses the site from west to east. This drainage feature is a first order stream that enters the project site as a natural drainage at the foothills of the Jurupa Mountains on the west side of the project site. Drainage A is approximately 1,092 linear feet. No surface water was present within Drainage A during the site visit. Evidence of the OHWM included a clear, natural line impressed on the bank, changes in the character of soils (e.g. deposition) and the presence of litter and debris. Drainage A did not exhibit a hydrological connection to other onsite or offsite waters of the U.S. The drainage terminates onsite in a topographic low point that has been significantly impacted by off-road vehicle use. At this location an OHWM and hydrophytic vegetation was absent as they were from similar areas identified during the site visit. Flows or precipitation that collects in these areas of the site infiltrate the ground surface. High infiltration rates are further supported by the soils report description of the Delhi Fine Sand drainage class, in which these areas are found. These soils are described as somewhat excessively drained with no frequency of flooding or ponding.

The Corps OHWM ranged from 1 to 6 feet in width. CDFW jurisdictional streambed was consistent with the Corps OHWM. Vegetation within Drainage A was comprised predominantly of invasive species of which the majority was Castor bean (*Ricinus communis*). Other plant species noted within the drainage consisted of fiddleneck (*Amsinckia douglasiana),* common sunflower (*Helianthus annuus*), telegraph weed (*Heterotheca grandiflora*), tree tobacco (*Nicotiana glauca*), London rocket (*Sisymbrium irio*), and red-stemmed filaree (*Erodium cicutarium*). According the Corps National Wetlands Plant List, all species are considered FACU, with the exception of *Nicotiana glauca* which has a FAC indicator rating.

4.1.2 Drainage A1

A very narrow ephemeral drainage is located within the southwest of the project site within Parcel 4. The drainage originates at the base of the foothills of the Jurupa Mountains. Evidence of an OHWM consisted of a clear natural scour line impressed on the bank. This drainage was 1 foot in width and extended 236 ft until the OHWM became discontinuous and was no longer observed. Flows at the terminus of this drainage either infiltrate or sheet flow across the project site.

4.1.3 Drainage B

Drainage B is an ephemeral drainage that runs north to southeast across the project site south of Jurupa Avenue. The drainage feature begins at Jurupa Avenue where flows are collected at a low spot in the road and are conveyed across the project site.

Drainage B is approximately 1,169 linear feet. No surface water was present within Drainage B during the site visit. Evidence of the OHWM included drift deposits, sediment deposition as well as the presence of litter and debris. The Corps OHWM ranges from 2 to 8 feet in width. CDFW jurisdictional streambed was consistent with the Corps OHWM. Plant species noted within the drainage consisted of fiddleneck (*Amsinckia douglasiana),* common sunflower (*Helianthus annuus*), tree tobacco (*Nicotiana glauca*), and red-stemmed filaree (*Erodium cicutarium*).

4.1.4 Drainage B1

Drainage B1 is an ephemeral drainage that is tributary to Drainage B. The drainage feature was approximately 67 linear feet and consisted of an OHWM of 3 feet through its entire length. Plant species found within Drainage B1 were consistent with species found within Drainage B. Flows originating from both Drainages B and B1 are conveyed south of the project site across agricultural uses into a flood detention basin north of 11th Street. Flows entering the basin are held and slowly infiltrate. No outlets to the infiltration basin were observed.

4.2 NON-WETLAND/ NON-JURISDICTIONAL FEATURES

4.2.1 Non-Jurisdictional Feature A2

Feature A2 is located approximately 120 southwest of Drainage A1. This topographical feature traverses the site from west to east originating from the foothills of the Jurupa Mountains on the west side of the project. No observations of an OHWM (e.g. shelving, natural line impressed on the bank, scour or deposition, or change in plant community) were noted during the delineation. This feature was characterized by a lack of a well-defined channel and comprised entirely of non-native grasses.

4.3 WETLAND FEATURES

4.3.1 Wetland 1

Wetland 1 is located in a topographical depression approximately 0.22 miles north of Drainage A. Primary hydrology indicators were observed within Wetland 1, which consisted of 1-2 inches of surface water and surface soils cracks. Vegetation within Wetland 1 consisted entirely of mulefat (*Baccharis salicifolia*) which according to the Corps National Wetlands Plant List has a FAC indicator rating; mulefat was also predominately found along the south and southwestern fringe of the wetland at slightly higher elevations. A reduced number of plant species were found within the wetland itself and exhibited exposed adventitious rooting/morphological adaptations. The exposed rooting adaptations suggest that water levels in this location are seasonally higher and support the mulefat scrub along the wetland fringe.

Three (3) soil pits (SP3-SP5) were dug due to the presence of dominant hydrophytic vegetation (*Baccharis salicifolia)*. The soil pits were dug to approximately 18 inches and displayed matrix colors of 10YR 4/3 (SP 3), 10YR 5/4 (SP 4) and 10YR 3/1 with redox features 10YR 5/1 (SP 5). The soil texture consisted of either Loamy Sand (SP3) or Clay Loam (SP 4-5). Soil pit 5 exhibited hydric soil characteristics (refer to Appendix A, *Wetland Data Forms*) consistent with a depleted dark surface.

View looking south within Drainage B (see Picture Point 1).

View looking north within Drainage B (see Picture Point 2).

View looking north noting typical site conditions following past agricultural uses.

View looking northeast along Drainage A noting invasive species dominance (see Picture Point 4).

View looking northeast across the infiltration basin located north of 11th Street.

View looking northeast across the project site noting the typical disturbed condition.

View looking west across Wetland 1 and associated riparian vegetation (see Picture Point 7).

View looking west noting mulefat scrub habitat associated with Wetland 1.

Section 5 Findings

This delineation has been prepared for Hillwood Investment Properties in order to delineate the Corps, Regional Board, and CDFW jurisdictional authority within the project site. This report presents RBF's best effort at determining the jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies. However, as with any jurisdictional delineation, only the regulatory agencies can make a final determination of jurisdictional boundaries within a project site/property.

5.1 U.S. ARMY CORPS OF ENGINEERS DETERMINATION

5.1.1 Non-Wetland Determination

Evidence of an OHWM was noted within the boundaries of the project site, which totaled 0.26-acre. Drainages A, B, and B1, enter the project site as narrow ephemeral drainages and do not exhibit a surface water connection to a river, lake, ocean, or other body of water. Due to the absence of a hydrological connection to any off-site waters the drainages are considered isolated.

Drainage A is conveyed onto the site as a first order stream at the base of the Jurupa Mountains and continues on-site for approximately 1,092 LF before it ultimately infiltrates into the ground surface. Drainage B and B1 originate from Jurupa Avenue where run-off from the road is collected at a low point and conveys flows eastward across the project site. Flows are eventually conveyed off-site through agriculture operations and into an infiltration basin where they eventually dissipate. The drainages have small drainage areas and contain vegetation typical of upland areas. The drainages on-site are intrastate isolated waters with no apparent interstate or foreign commerce connection. Therefore, none of the drainages fall within Corps' jurisdiction. Refer to Exhibit 6A and 6B, *Jurisdictional Map*, for an illustration of on-site jurisdictional areas. Refer to Table 1, *Total Jurisdictional Impacts,* for a summary of the permanent impacts associated with onsite jurisdictional areas.

Drainage A1 is an ephemeral drainage which is located onsite near the base of the Jurupa Mountains within Parcel 8. An OHWM becomes discontinuous after approximately 236 ft where it infiltrates or sheet flows prior to being affected by the proposed grading; therefore, no impacts to this drainage are proposed.

5.1.2 Wetland Determination

As previously noted in Section 2.1, an area must exhibit all three wetland parameters described in the Corps Regional Supplement to be considered a jurisdictional wetland. Based on the results of the site visit, it was determined that of the 0.26-acre of jurisdictional features noted within the project site, approximately 0.05-acre contained all three parameters needed to be considered a wetland. This area was found to be isolated similar to the on-site drainage features and therefore would not be considered jurisdictional by the Corps.

5.2 REGIONAL WATER QUALITY CONTROL BOARD DETERMINATION

As a result of isolated conditions being observed within the boundaries of the project site; the Regional Board would assume jurisdictional authority over both the documented isolated drainages and wetland.

5.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE DETERMINATION

The two on-site drainages and single wetland exhibited characteristics consistent with methodology identified in CDFW's Field Guide to Lake and Streambed Alteration and would be considered CDFW jurisdiction. The mulefat scrub habitat documented at the fringe of Wetland 1 would be considered associated riparian vegetation and therefore also would be subject to CDFW jurisdiction. Based on the results of the field investigation approximately 0.26-acre of unvegetated CDFW jurisdictional streambed and 0.21-acre of CDFW associated riparian vegetation occurs on-site.

TABLE 1. Total On-Site Jurisdictional Impacts

Jurisdictional Feature	Corps	Regional Board	CDFW	
	Non-Jurisdictional On-Site Acreage[5]	On-Site Acreage	On-Site Acreage	
		Surface Waters	Adjacent Riparian Vegetation	Unvegetated Streambed
Drainage A (Permanent Impact)	0.09	0.09	-	0.09
Drainage A1 (Non-Impacted)	0.005	0.005	-	0.005
Drainage B (Permanent Impact)	0.11	0.11	-	0.11
Drainage B1 (Permanent Impact)	0.005	0.005	-	0.005
Wetland 1 (Permanent Impact)	0.05	0.05	0.21	0.05
Total Permanent Impact	**0.26**	**0.26**	**0.21**	**0.26**
Total Non-Impacted Jurisdictional Acreage	**0.005**	**0.005**	**-**	**0.005**
Total On-site Jurisdictional Acreage	**0.27**	**0.27**	**0.21**	**0.27**

[5] Surface waters documented on-site are isolated and therefore not regulated by the Corps. It is RBF's opinion that the aquatic resources on-site are intrastate isolated waters with no apparent interstate or foreign commerce connection. Non-jurisdictional acreages have been shown so that Corps concurrence can be obtained.

8/8/2014 JN M:\Mdata\134267\GIS\MXD\Ex6a_Jurisdictional Map 11x17.mxd

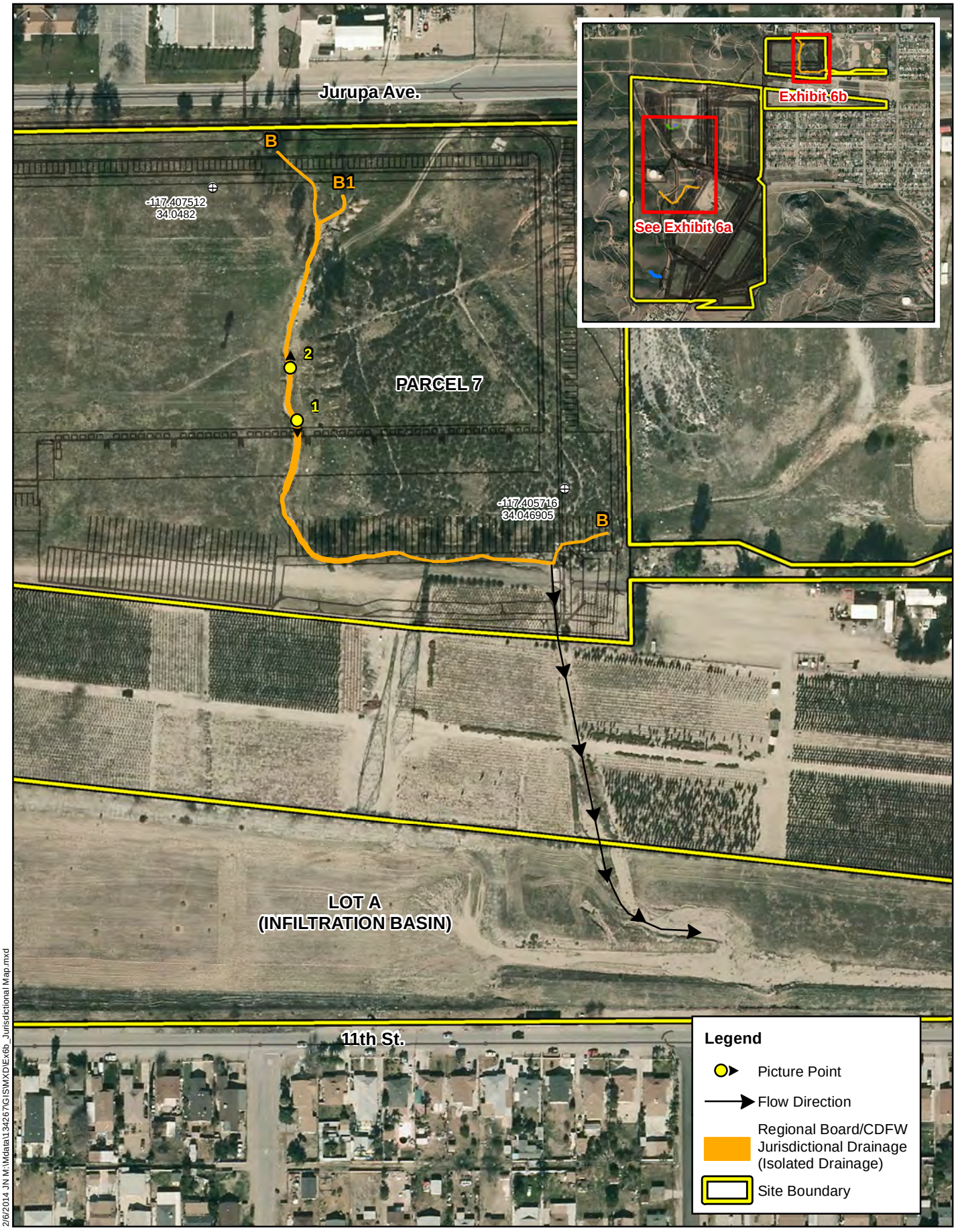
0 150 300 Feet

Source: Eagle Aerial Imaging -- 2012

WEST VALLEY LOGISTICS CENTER

Jurisdictional Map

Exhibit 6A



2/6/2014 JN M:\Mdata\134267\GIS\MXD\Ex6b_Jurisdictional Map.mxd

0 100 200 400 Feet

Source: Eagle Aerial Imaging - 2012

WEST VALLEY LOGISTICS CENTER

Jurisdictional Map

Exhibit 6B

Section 6 Regulatory Approval Process

The following is a summary of the various permits, agreements, and certifications required before construction activities take place within the jurisdictional areas.

6.1 U.S. ARMY CORPS OF ENGINEERS

A permit would not be required from the Corps Regulatory Branch-Los Angeles District Office as no Corps jurisdictional areas were located within the project site. However, a Jurisdictional Determination should be obtained from the Corps. A concurrence from the Corps would document the findings of the delineation and provide a determination concerning the isolated nature of the on-site conditions.

6.2 REGIONAL WATER QUALITY CONTROL BOARD

The Regional Board regulates discharges to surface waters under the Federal CWA and the California Porter-Cologne Water Quality Control Act. The Regional Board regulates discharges to surface waters under the Federal CWA and the California Porter-Cologne Water Quality Control Act. The Regional Board's jurisdiction extends to all waters of the State (including SWANCC and Rapanos conditions) and to all WoUS (including wetlands).

Although there are no Corps jurisdictional areas on-site, a Report of Waste Discharge (ROWD) from the Regional Board will be required prior to construction within the Regional Board's jurisdictional area.[6] The Regional Board also requires that CEQA compliance be obtained prior to obtaining the ROWD.

6.2.1 Report of Waste Discharge

The U.S. Supreme Court's ruling in the SWANCC decision has no bearing on the California Porter-Cologne Act. Thus, since Porter-Cologne was enacted, the State has always retained authority to regulate discharges of waste into any waters of the State, regardless of whether the Corps has concurrent jurisdiction under Section 404. Since the on-site drainages were determined to display isolated conditions (SWANCC drainages), a Report of Waste Discharge (ROWD) pursuant to California Water Code Section 13260 would be required from the Regional Board. Section 13260 states that persons discharging or proposing to discharge waste that could affect the quality of the waters of the State, other than into a community sewer system, shall file a ROWD containing information which may be required by the appropriate Regional Board.

[6] California Water Code Section 13260

All dischargers regulated under waste discharge requirements (WDRs) permits must pay an annual fee. The Regional Board has within 30 days of receipt of the application form and any supplemental documents to notify the applicant whether the application is complete. If the application is incomplete, the Regional Board representative will send the applicant a detailed list of discharge specific information necessary to complete the application process. The completion date of the application is normally the date when all required information, including the fee, is received by the Regional Board. The annual fee is determined by the Regional Board based on an evaluation of proposed discharge.

6.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

The on-site isolated drainages would be considered jurisdictional by the CDFW; therefore, the CDFW must be notified prior to any construction activities having the potential to affect the documented jurisdictional areas. The CDFW regulates alterations to streambed under the California Fish and Game Code. Upon a formal notification, the CDFW will determine whether the notification package (application) is complete. The CDFW will make this determination within 30 calendar days of receiving the notification package if the application is for a regular agreement (i.e., an agreement for a term of five years or less); however, the 30-day time period does not apply to notifications for long-term agreements (i.e., agreements for a term greater than five years). Once the notification package is deemed complete, CDFW will process a Draft Agreement as described below.

The CDFW may require an on-site inspection prior to drafting the agreement. The draft agreement will include measures to protect fish and wildlife resources while conducting the project. For regular agreements, the CDFW will submit a draft agreement to the applicant within 60 calendar days after the notification is deemed complete. The 60-day time period does not apply to notifications for long-term agreements, since these are often large or complex projects.

The applicant then has 30 calendar days to notify CDFW whether the measures in the draft agreement are acceptable. After CDFW receives the signed draft agreement, it will make it final by signing it. The CDFW Application fee associated with the notification package varies and is dependent upon the total cost of the project and type of agreement (i.e., Regular or Long-Term).

Section 7 References

The following resources were utilized during preparation of this Delineation of State and Federal Jurisdictional Waters:

California Department of Fish and Game, *Field Guide to Lake and Streambed Alteration Agreements Section 1600-1607 California Fish and Game Code*, January 1994

California Department of Fish and Game, *Lake and Streambed Alteration Program*. (http://www.dfg.ca.gov/1600/index.html)

California Regional Water Quality Control Board, Santa Ana, *Water Quality Control Plan*, February 2008 and June 2011

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Natural Resources Conservation Service, *Hydric Soils List of California*, April 2012 (http://soils.usda.gov/use/hydric/)

U.S. Army Corps of Engineers, *Practices for Documenting Jurisdiction under Section 404 of the CWA*, Regional Guidance Letter 07-01, June 5, 2007

U.S. Army Corps of Engineers, *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States*, August 2008

U.S. Army Corps of Engineers, *Distribution of Ordinary High Water Mark Indicators and their Reliability in Identifying the Limits of "Waters of the United States" in the Arid Southwestern Channels*, February 2006

U.S. Army Corps of Engineers, *Final Summary Report: Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest*, June 2001

U.S. Army Corps of Engineers, *Los Angeles District Regulatory Program.* (http://www.spl. usace.army.mil/)

U.S. Army Corps of Engineers, *Minimum Standards for Acceptance of Preliminary Wetland Delineations*, November 20, 2001

U.S. Army Corps of Engineers, *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. Nobel. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center, 2008

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U.S. Fish and Wildlife Service, Department of Habitat and Resource Conservation, *Wetland Geodatabase*. (http://wetlandsfws.er.usgs.gov/NWI/index.html)

U.S. Department of Homeland Security, Federal Emergency Management Agency, National Flood Insurance Program, *Flood Insurance Rate No.* 06065C0045G, accessed April 2013

U.S. Fish and Wildlife Service, *National List of Vascular Plant Species that Occur in Wetlands*, 1988

U.S. Geological Survey, 7.5 Minute Series Topographic Quadrangle, *Fontana, California*, 1967, Photorevised 1980

Appendix A Regulations

U.S. Army Corps of Engineers

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of "waters of the U.S.", including wetlands, pursuant to Section 404 of the CWA. The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States (WoUS) under Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States." The term WoUS is defined as follows:[7]

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

(2) all interstate waters including interstate wetlands;

(3) all waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) which are used or could be used for industrial purpose by industries in interstate commerce;

(4) all impoundments of waters otherwise defined as WoUS under the definition;

(5) tributaries of waters identified in paragraphs (1)-(4) mentioned above;

(6) the territorial seas; and,

(7) wetlands adjacent to the waters identified in paragraphs (1)-(6) mentioned above.

Wetlands, a subset of jurisdictional waters, are jointly defined by the Corps and EPA as "*those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of*

[7] CWA regulations 33 CFR §328.3(a).

vegetation typically adapted for life in saturated soil conditions."[8] Wetlands generally include swamps, marshes, bogs, and similar areas.

The Corps' regulatory program continues to evolve due to court rulings associated with litigation. Sections 2.1.1 and 2.1.2, below, briefly discuss court cases that have impacted the Corps' jurisdiction over the past decade. The Corps does not regulate isolated waters and wetlands with no interstate or foreign commerce connection.[9]

The Corps will assert jurisdiction over traditional navigable waters (TNWs) and all wetlands adjacent to TNWs, as well as non-navigable tributaries of TNWs that are relatively permanent waters (RPW) (i.e., the tributaries typically flow year-round or have a continuous flow at least seasonally) and wetlands with a continuous surface connection that directly abut such tributaries; however, the agencies will evaluate jurisdiction over the following features based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:[10]

- Non-navigable tributaries that are not relatively permanent (do not flow typically year-round or have a continuous flow at least seasonally);
- Wetlands adjacent to such tributaries; and,
- Wetlands adjacent to, but that do not directly abut, a relatively permanent non-navigable tributary.

A case-by-case "significant nexus" analysis is conducted to determine whether the waters noted above and their adjacent wetlands are jurisdictional. A "significant nexus" may be found where waters, including adjacent wetlands, affect the chemical, physical, or biological integrity of downstream TNWs. The significant nexus analysis also includes consideration of hydrologic and ecologic factors relative to TNWs.

REGIONAL WATER QUALITY CONTROL BOARD

Applicants for a federal license or permit for activities which may discharge to waters of the United States must seek Water Quality Certification from the state or Indian tribe with jurisdiction. [11] Such Certification is based on a finding that the discharge will meet water quality standards and other applicable requirements. In California, Regional Boards issue or deny Certification for discharges within their geographical jurisdiction. Water Quality

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8 CWA regulations 33 CFR §328.3(b).

9 *Solid Waste Agency of Northern Cook County v. United States Corps of Engineers* (SWANCC)

10 *Rapanos v. United States* 547 U.S. 715 (2006) (Rapanos)

11 Title 33, United States Code, Section 1341; Clean Water Act Section.

Certification must be based on a finding that the proposed discharge will comply with water quality standards, which are defined as numeric and narrative objectives in each Regional Board's Basin Plan. Where applicable, the State Water Resources Control Board has this responsibility for projects affecting waters within multiple Regional Boards. The Regional Board's jurisdiction extends to all waters of the State (includes SWANCC and Rapanos conditions) and to all WoUS, including wetlands.

Additionally, the California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

California Fish and Game Code Sections 1600-1616 establish a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;

(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or

(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state. The Fish and Wildlife's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream,

lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation.

Any of the below criteria could be applicable in determining what constitutes a stream depending on the potential for the proposed activity to adversely affect fish and other stream-dependent wildlife resources.

(1) The term “stream” can include intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams based on United States Geological Survey (USGS) maps, and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.

(2) Biological components of a stream may include aquatic and riparian vegetation, along with all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system.

(3) As a physical system, a stream not only includes water (at least on an intermittent or ephemeral basis), but also a bed or channel, a bank and/or levee, in-stream features such as logs or snags, and various flood plains depending on the return frequency of the flood event being considered (i.e., 10, 50, or 100 years, etc.).

(4) The lateral extent of a stream can be measured in several ways depending on a particular situation and the type of fish or wildlife resource at risk. The following criteria are presented in order from the most inclusive to the least inclusive:

    (a) The flood plain of a stream can be the broadest measurement of a stream’s lateral extent depending on the return frequency of the flood event used. For most flood control purposes, the 100-year flood plain exists for many streams. However, the 100-year flood plain may include significant amounts of upland or urban habitat and therefore may not be appropriate in many cases.

    (b) The outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats and is therefore a reasonable and identifiable boundary for the lateral extent of a stream. In most cases, the use of this criterion should result in protecting the fish and wildlife resources at risk.

    (c) Most streams have a natural bank which confines flows to the bed or channel except during flooding. In some instances, particularly on smaller streams or dry washes with little or no riparian habitat, the bank should be used to mark the lateral extent of a stream.

(d) A levee or other artificial stream bank would also be used to mark the lateral extent of a stream. However, in many instances, there can be extensive areas of valuable riparian habitat located behind a levee.

Appendix B Methodology

WATERS OF THE U.S. AND STATE WATERS

The limits of the Corps' jurisdiction in non-tidal waters extend to the OHWM, which is defined as " . . . *that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a 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.*"[12] An OHWM can be determined by the observation of a natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; presence of litter and debris; wracking; vegetation matted down, bent, or absent; sediment sorting; leaf litter disturbed or washed away; scour; deposition; multiple observed flow events; bed and banks; water staining; and/or change in plant community. The Regional Board shares the Corps' jurisdictional methodology, unless SWANCC or Rapanos conditions are present. In the latter case, the Regional Board considers such drainages to be jurisdictional waters of the State. The CDFW's jurisdiction extends to the top of bank of the stream/channel or to the limit (outer dripline) of the adjacent riparian vegetation.

WETLANDS

For this project location, Corps jurisdictional wetlands are delineated using the methods outlined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Corps, 2008). This document is one of a series of Regional Supplements to the 1987 Corps Wetland Delineation Manual (Corps Manual). According to the Corps Manual, identification of wetlands is based on a three-parameter approach involving indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. In order to be considered a wetland, an area must exhibit at least minimal characteristics within these three (3) parameters. The Regional Supplement presents wetland indicators, delineation guidance, and other information that is specific to the Arid West Region. In the field, vegetation, soils, and evidence of hydrology have been examined using the methodology listed below and documented on Corps' wetland data sheets, when applicable. It should be noted that both the Regional Board and the CDFW jurisdictional wetlands encompass those of the Corps. Refer to Appendix B, Methodologies, for a complete discussion on protocol for documenting the vegetation, hydrology and soil parameters.

Vegetation

Nearly 5,000 plant types in the United States may occur in wetlands. These plants, often referred to as hydrophytic vegetation, are listed in regional publications by the U.S. Fish and Wildlife Service (USFWS). In general, hydrophytic vegetation is present when the plant community is dominated by species that can tolerate prolonged inundation or soil saturation

[12] CWA regulations 33 CFR §328.3(e).

during growing season. Hydrophytic vegetation decisions are based on the assemblage of plant species growing on a site, rather than the presence or absence of particular indicator species. Vegetation strata are sampled separately when evaluating indicators of hydrophytic vegetation. A stratum for sampling purposes is defined as having 5 percent or more total plant cover. The following vegetation strata are recommended for use across the Arid West:

- *Tree Stratum:* Consists of woody plants 3 inches or more in diameter at breast height (DBH);
- *Sapling/shrub stratum:* Consists of woody plants less than 3 inches in DBH, regardless of height;
- *Herb stratum:* Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size; and,
- *Woody vines:* Consists of all woody vines, regardless of size.

The following indicator is applied per the test method below.[13] Hydrophytic vegetation is present if any of the indicators are satisfied.

Indicator 1 – Dominance Test

Cover of vegetation is estimated and is ranked according to their dominance. Species that contribute to a cumulative total of 50% of the total dominant coverage, plus any species that comprise at least 20% (also known as the "50/20 rule") of the total dominant coverage, are recorded on a wetland data sheet. Wetland indicator status in California (Region 0) is assigned to each species using *The List of Plant Species that Occur in Wetlands* (USFWS, 1988). If greater than 50% of the dominant species from all strata were Obligate, Facultative-wetland, or Facultative species, the criteria for wetland vegetation is considered to be met. Plant indicator status categories are described below:

- *Obligate Wetland (OBL):* Plants that occur almost always (estimated >99 percent) in wetlands under natural conditions, but which may also occur rarely (estimated <1 percent) in non-wetlands (e.g., *Spartina alterniflora, Taxodium distichum*);

[13] Although the Dominance Test is utilized in the majority of wetland delineations, other indicator tests may be employed. If one indicator of hydric soil and one primary or two secondary indicators of wetland hydrology are present, then the Prevalence Test (Indicator 2) may be performed. If the plant community satisfies the Prevalence Test, then the vegetation is hydric. If the Prevalence Test fails, then the Morphological Adaptation Test may be performed, where the delineator analyzes the vegetation for potential morphological features.

- *Facultative Wetland (FACW):* Plants that occur usually (estimated >67 to 99 percent) in wetlands, but also occur (estimated 1 to 33 percent) in non-wetlands (e.g., *Fraxinus pennsylvanica, Cornus stolonifera*);

- *Facultative (FAC):* Plants with similar likelihood (estimated 33 to 67 percent) of occurring in both wetlands and non-wetlands (e.g., Gleditsia triacanthos, Smilax rotundifolia);

- *Facultative Upland (FACU):* Plants that occur sometimes (estimated 1 to <33 percent) in wetlands, but occur more often (estimated >67 to 99 percent) in non-wetlands (e.g., *Quercus rubra, Potentilla arguta*); and,

- *Obligate Upland (UPL):* Plants that occur rarely (estimated 1 percent) in wetlands, but occur almost always (estimated >99 percent) in non-wetlands under natural conditions (e.g., *Pinus echinata, Bromus mollis*).

Hydrology

Wetland hydrology indicators are presented in four (4) groups, which include:

Group A – Observation of Surface Water or Saturated Soils

Group A is based on the direct observation of surface water or groundwater during the site visit.

Group B – Evidence of Recent Inundation

Group B consists of evidence that the site is subject to flooding or ponding, although it may not be inundated currently. These indicators include water marks, drift deposits, sediment deposits, and similar features.

Group C – Evidence of Recent Soil Saturation

Group C consists of indirect evidence that the soil was saturated recently. Some of these indicators, such as oxidized rhizopheres surrounding living roots and the presence of reduced iron or sulfur in the soil profile, indicate that the soil has been saturated for an extended period.

Group D – Evidence from Other Site Conditions or Data

Group D consists of vegetation and soil features that indicate contemporary rather than historical wet conditions, and include shallow aquitard and the FAC-neutral test.

If wetland vegetation criteria is met, the presence of wetland hydrology is evaluated at each transect by recording the extent of observed surface flows, depth of inundation, depth to saturated soils, and depth to free water in the soil test pits. The lateral extent of the hydrology indicators are used as a guide for locating soil pits for evaluation of hydric soils and jurisdictional areas. In portions of the stream where the flow is divided by multiple channels with intermediate sand bars, the entire area between the channels is considered within the OHWM and the wetland hydrology indicator is considered met for the entire area.

Soils

A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper 16-20 inches.[14] The concept of hydric soils includes soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Soils that are sufficiently wet because of artificial measures are included in the concept of hydric soils. It should also be noted that the limits of wetland hydrology indicators are used as a guide for locating soil pits. If any hydric soil features are located, progressive pits are dug moving laterally away from the active channel until hydric features are no longer present within the top 20 inches of the soil profile.

Once in the field, soil characteristics are verified by digging soil pits along each transect to an excavation depth of 20 inches; in areas of high sediment deposition, soil pit depth may be increased. Soil pit locations are usually placed within the drainage invert or within adjoining vegetation. At each soil pit, the soil texture and color are recorded by comparison with standard plates within a *Munsell Soil Chart* (2009). Munsell Soil Charts aid in designating color labels to soils, based by degrees of three simple variables – hue, value, and chroma. Any indicators of hydric soils, such as organic accumulation, iron reduction, translocation, and accumulation, and sulfate reduction, are also recorded.

Hydric soil indicators are present in three groups, which include:

<u>All Soils</u>

"All soils" refers to soils with any United States Department of Agriculture (USDA) soil texture. Hydric soil indicators within this group include histosol, histic epipedon, black histic, hydrogen sulfide, stratified layers, 1 cm muck, depleted below dark surface, and thick dark surface.

<u>Sandy Soils</u>

[14] According to the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (Corps 2008), growing season dates are determined through on-site observations of the following indicators of biological activity in a given year: (1) above-ground growth and development of vascular plants, and/or (2) soil temperature.

"Sandy soils" refers to soil materials with a USDA soil texture of loamy fine sand and coarser. Hydric soil indicators within this group include sandy mucky mineral, sandy gleyed matrix, sandy redox, and stripped matrix.

Loamy and Clayey Soils

"Loamy and clayey soils" refers to soil materials with a USDA soil texture of loamy very fine sand and finer. Hydric soil indicators within this group include loamy mucky mineral, loamy gleyed matrix, depleted matrix, redox dark surface, depleted dark surface, redox depressions, and vernal pools.

SWANCC WATERS

The term "isolated waters" is generally applied to waters/wetlands that are not connected by surface water to a river, lake, ocean, or other body of water. In the presence of isolated conditions, the Regional Board and CDFW take jurisdiction through the application of the OHWM/streambed and/or the 3-parameter wetland methodology utilized by the Corps.

RAPANOS WATERS

The Corps will assert jurisdiction over non-navigable, not relatively permanent tributaries and their adjacent wetlands where such tributaries and wetlands have a significant nexus to a TNW. The flow characteristics and functions of the tributary itself, in combination with the functions performed by any wetlands adjacent to the tributary, determine if these waters/wetlands significantly affect the chemical, physical, and biological integrity of the TNWs. Factors considered in the significant nexus evaluation include:

(1) The consideration of hydrologic factors including, but not limited to, the following:

- volume, duration, and frequency of flow, including consideration of certain physical characteristics of the tributary
- proximity to the TNW
- size of the watershed average annual rainfall
- average annual winter snow pack

(2) The consideration of ecologic factors including, but not limited to, the following:

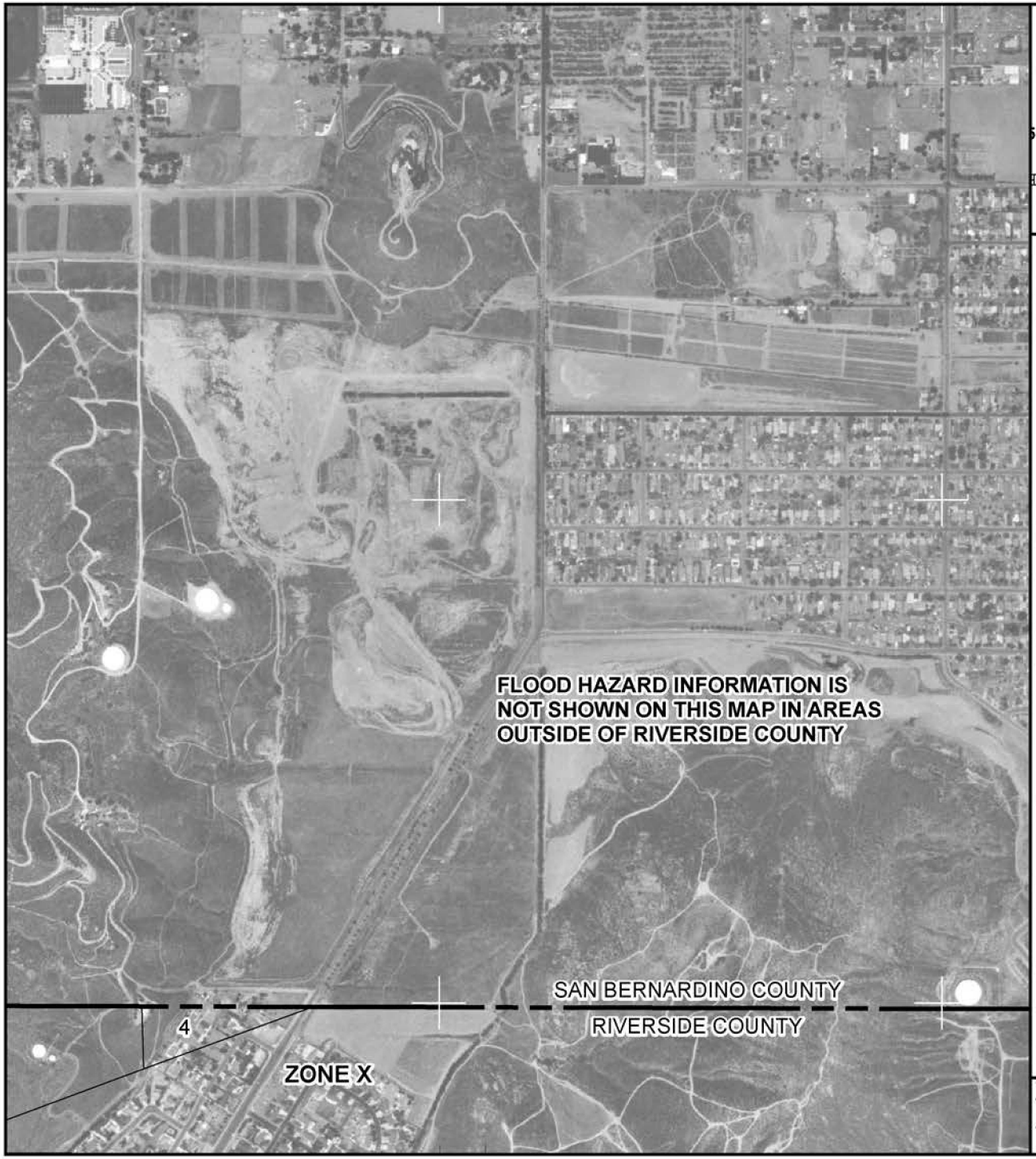
- the ability for tributaries to carry pollutants and flood waters to TNWs
- the ability of a tributary to provide aquatic habitat that supports a TNW
- the ability of wetlands to trap and filter pollutants or store flood waters
- maintenance of water quality

Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) and ditches (including roadside ditches) excavated wholly

in, and draining only, uplands and that do not carry a relatively permanent flow of water, are generally not considered jurisdictional waters.

In the presence of Rapanos drainage conditions, the Regional Board and CDFW take jurisdiction via the OHWM and/or the 3-parameter wetland methodology utilized by the Corps.

Appendix C Documentation



MAP SCALE 1" = 1000'

500 0 1000 2000

FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0045G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 45 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

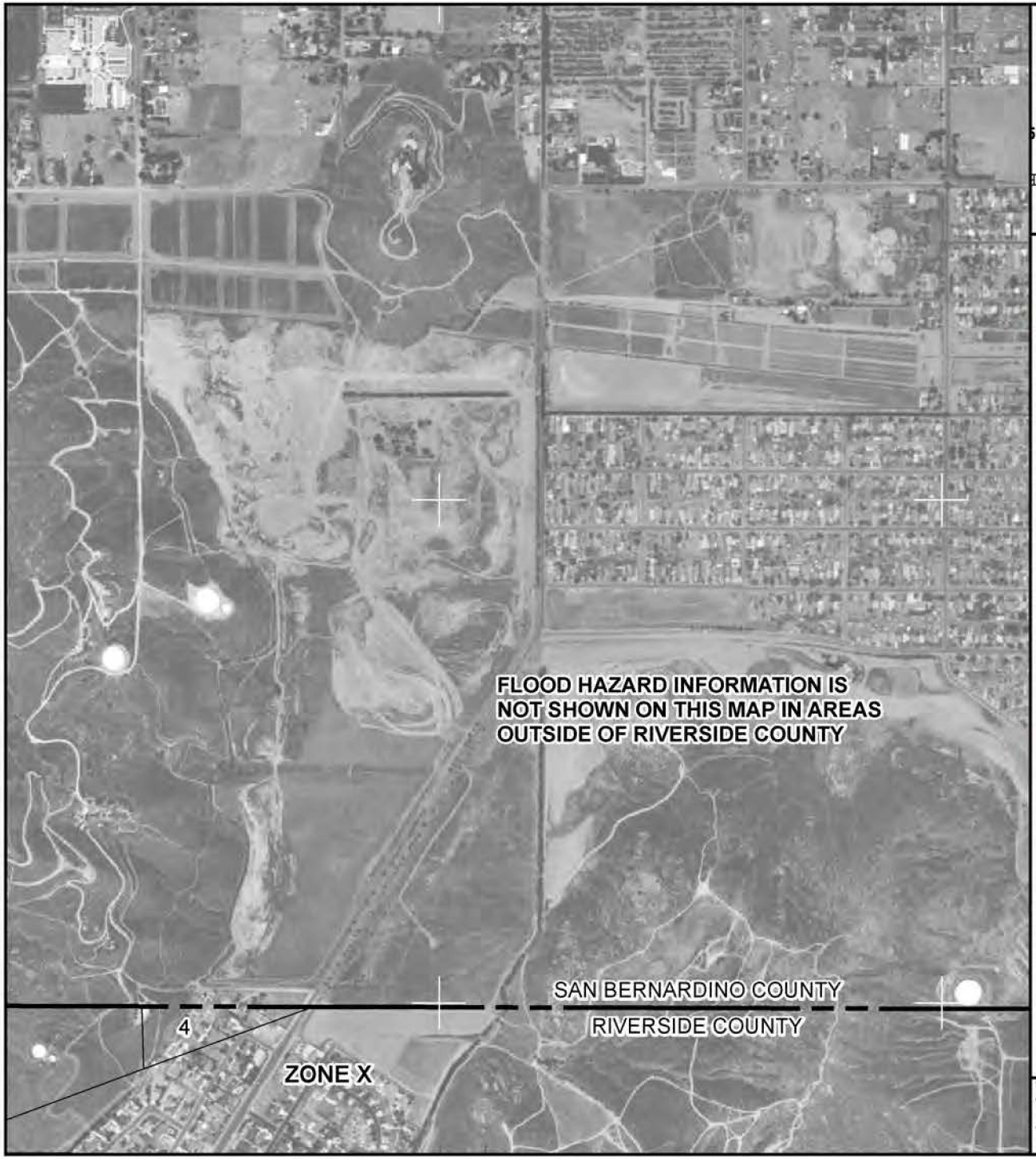
COMMUNITY	NUMBER	PANEL	SUFFIX
RIVERSIDE COUNTY	060245	0045	G
RIVERSIDE, CITY OF	060260	0045	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C0045G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency



MAP SCALE 1" = 1000'

500 0 1000 2000

FEET

METER

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

U.S. Fish and Wildlife Service
National Wetlands Inventory

Apr 1, 2013

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Riparian

- Herbaceous
- Forested/Shrub

Riparian Status

- Digital Data

User Remarks:

United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for San Bernardino County Southwestern Part, California

West Valley Project

April 1, 2013

Preface

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Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://soils.usda.gov/sqi/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:4,130 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 11N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
Survey Area Data: Version 4, Jan 3, 2008

Date(s) aerial images were photographed: 6/18/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

San Bernardino County Southwestern Part, California (CA677)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Db	DELHI FINE SAND	8.3	32.8%
GP	QUARRIES AND PITS	5.6	22.2%
TuB	TUJUNGA LOAMY SAND, 0 TO 5 PERCENT SLOPES	11.4	45.0%
Totals for Area of Interest		**25.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If

intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Bernardino County Southwestern Part, California

Db—DELHI FINE SAND

Map Unit Setting

Elevation: 30 to 1,400 feet
Mean annual precipitation: 10 to 16 inches
Mean annual air temperature: 59 to 64 degrees F
Frost-free period: 225 to 310 days

Map Unit Composition

Delhi and similar soils: 85 percent
Minor components: 15 percent

Description of Delhi

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy alluvium derived from granite

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.4 inches)

Interpretive groups

Farmland classification: Prime farmland if irrigated
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 4e
Hydrologic Soil Group: A

Typical profile

0 to 18 inches: Fine sand
18 to 60 inches: Sand

Minor Components

Unnamed

Percent of map unit: 5 percent
Landform: Depressions

Tujunga loamy sand

Percent of map unit: 5 percent

Unnamed

Percent of map unit: 5 percent

GP—QUARRIES AND PITS

Map Unit Composition

Pits: 50 percent
Quarries: 50 percent

Description of Quarries

Setting

Parent material: Residuum

Typical profile

0 to 6 inches: Very gravelly coarse sand
6 to 60 inches: Extremely gravelly sand, extremely gravelly coarse sand, very gravelly coarse sand

Description of Pits

Setting

Parent material: Sandy and gravelly alluvium

Typical profile

0 to 6 inches: Very gravelly coarse sand
6 to 60 inches: Extremely gravelly sand, extremely gravelly coarse sand, very gravelly coarse sand

TuB—TUJUNGA LOAMY SAND, 0 TO 5 PERCENT SLOPES

Map Unit Setting

Elevation: 10 to 2,500 feet
Mean annual precipitation: 10 to 25 inches
Mean annual air temperature: 59 to 64 degrees F
Frost-free period: 280 to 350 days

Map Unit Composition

Tujunga and similar soils: 85 percent
Minor components: 15 percent

Description of Tujunga

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear

Parent material: Alluvium derived from granite

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water capacity: High (about 10.0 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 4e
Hydrologic Soil Group: A

Typical profile

0 to 18 inches: Gravelly loamy sand
18 to 60 inches: Loamy sand, coarse sand, loamy coarse sand

Minor Components

Unnamed

Percent of map unit: 5 percent
Landform: Drainageways

Tujunga gravelly loamy sand

Percent of map unit: 5 percent

Hanford sandy loam

Percent of map unit: 5 percent

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United States Department of Agriculture

Natural Resources Conservation Service

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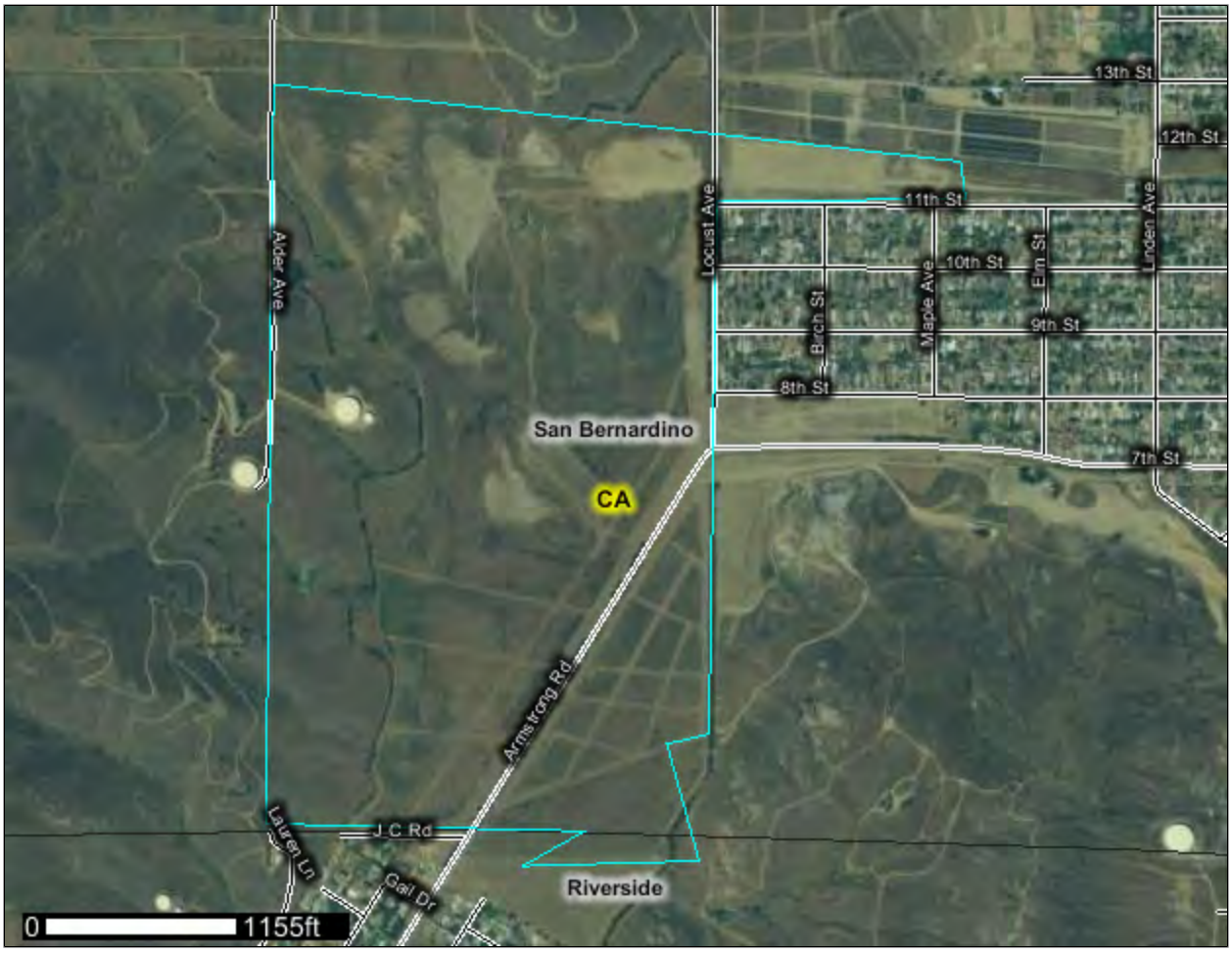
Custom Soil Resource Report for San Bernardino County Southwestern Part, California, and Western Riverside Area, California

West Valley Project



April 1, 2013

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The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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Contents

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map (West Valley)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:9,770 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,840 to 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 11N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
Survey Area Data: Version 4, Jan 3, 2008

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 5, Jan 3, 2008

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Date(s) aerial images were photographed: 6/18/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (West Valley)

San Bernardino County Southwestern Part, California (CA677)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CnD	CIENEBA SANDY LOAM, 9 TO 15 PERCENT SLOPES	43.8	16.1%
Cr	CIENEBA-ROCK OUTCROP COMPLEX	13.5	5.0%
Db	DELHI FINE SAND	191.2	70.3%
HaD	HANFORD COARSE SANDY LOAM, 9 TO 15 PERCENT SLOPES	13.3	4.9%
TuB	TUJUNGA LOAMY SAND, 0 TO 5 PERCENT SLOPES	7.4	2.7%
Subtotals for Soil Survey Area		**269.2**	**99.0%**
Totals for Area of Interest		**272.0**	**100.0%**

Western Riverside Area, California (CA679)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Cr	Cieneba-Rock outcrop complex	0.2	0.1%
Db	Delhi fine sand	2.6	0.9%
Subtotals for Soil Survey Area		**2.8**	**1.0%**
Totals for Area of Interest		**272.0**	**100.0%**

Map Unit Descriptions (West Valley)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties

and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Bernardino County Southwestern Part, California

CnD—CIENEBA SANDY LOAM, 9 TO 15 PERCENT SLOPES

Map Unit Setting

Landscape: Uplands
Elevation: 500 to 4,000 feet
Mean annual precipitation: 12 to 35 inches
Mean annual air temperature: 57 to 64 degrees F
Frost-free period: 200 to 300 days

Map Unit Composition

Cieneba and similar soils: 85 percent
Minor components: 10 percent

Description of Cieneba

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from granite

Properties and qualities

Slope: 9 to 15 percent
Depth to restrictive feature: 14 to 18 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 6e
Hydrologic Soil Group: B

Typical profile

0 to 8 inches: Sandy loam
8 to 14 inches: Sandy loam
14 to 18 inches: Weathered bedrock

Minor Components

Unnamed

Percent of map unit: 5 percent

Rock outcrop

Percent of map unit: 5 percent

Cr—CIENEBA-ROCK OUTCROP COMPLEX

Map Unit Setting

Landscape: Uplands
Elevation: 500 to 4,000 feet
Mean annual precipitation: 8 to 35 inches
Mean annual air temperature: 45 to 64 degrees F
Frost-free period: 110 to 300 days

Map Unit Composition

Cieneba and similar soils: 60 percent
Rock outcrop: 30 percent
Minor components: 10 percent

Description of Cieneba

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from granite

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 14 to 18 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 6e
Hydrologic Soil Group: B

Typical profile

0 to 8 inches: Sandy loam
8 to 14 inches: Sandy loam
14 to 18 inches: Weathered bedrock

Description of Rock Outcrop

Setting

Landform: Hills
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Free face
Down-slope shape: Concave
Across-slope shape: Concave

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 0 inches to lithic bedrock

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 8
Hydrologic Soil Group: D

Typical profile

0 to 60 inches: Unweathered bedrock

Minor Components

Unnamed, eroded

Percent of map unit: 5 percent

Unnamed

Percent of map unit: 5 percent

Db—DELHI FINE SAND

Map Unit Setting

Elevation: 30 to 1,400 feet
Mean annual precipitation: 10 to 16 inches
Mean annual air temperature: 59 to 64 degrees F
Frost-free period: 225 to 310 days

Map Unit Composition

Delhi and similar soils: 85 percent
Minor components: 15 percent

Description of Delhi

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy alluvium derived from granite

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.4 inches)

Interpretive groups

Farmland classification: Prime farmland if irrigated
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 4e
Hydrologic Soil Group: A

Typical profile

0 to 18 inches: Fine sand
18 to 60 inches: Sand

Minor Components

Unnamed

Percent of map unit: 5 percent
Landform: Depressions

Tujunga loamy sand

Percent of map unit: 5 percent

Unnamed

Percent of map unit: 5 percent

HaD—HANFORD COARSE SANDY LOAM, 9 TO 15 PERCENT SLOPES

Map Unit Setting

Elevation: 150 to 900 feet
Mean annual precipitation: 10 to 20 inches
Mean annual air temperature: 63 degrees F
Frost-free period: 250 to 280 days

Map Unit Composition

Hanford and similar soils: 85 percent
Minor components: 15 percent

Description of Hanford

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Properties and qualities

Slope: 9 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very high (about 20.3 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 3e
Hydrologic Soil Group: B

Typical profile

0 to 12 inches: Sandy loam
12 to 60 inches: Fine sandy loam, sandy loam, coarse sandy loam

Minor Components

Greenfield sandy loam

Percent of map unit: 10 percent

Ramona sandy loam

Percent of map unit: 5 percent

TuB—TUJUNGA LOAMY SAND, 0 TO 5 PERCENT SLOPES

Map Unit Setting

Elevation: 10 to 2,500 feet
Mean annual precipitation: 10 to 25 inches
Mean annual air temperature: 59 to 64 degrees F
Frost-free period: 280 to 350 days

Map Unit Composition

Tujunga and similar soils: 85 percent
Minor components: 15 percent

Description of Tujunga

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water capacity: High (about 10.0 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 4e
Hydrologic Soil Group: A

Typical profile

0 to 18 inches: Gravelly loamy sand
18 to 60 inches: Loamy sand, coarse sand, loamy coarse sand

Minor Components

Unnamed

Percent of map unit: 5 percent
Landform: Drainageways

Tujunga gravelly loamy sand

Percent of map unit: 5 percent

Hanford sandy loam

Percent of map unit: 5 percent

Western Riverside Area, California

Cr—Cieneba-Rock outcrop complex

Map Unit Setting

Landscape: Uplands
Elevation: 500 to 4,000 feet
Mean annual precipitation: 8 to 35 inches
Mean annual air temperature: 45 to 64 degrees F
Frost-free period: 110 to 300 days

Map Unit Composition

Cieneba and similar soils: 60 percent
Rock outcrop: 30 percent
Minor components: 10 percent

Description of Cieneba

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from granite

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 14 to 18 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 6e
Hydrologic Soil Group: B

Typical profile

0 to 8 inches: Sandy loam
8 to 14 inches: Sandy loam
14 to 18 inches: Weathered bedrock

Description of Rock Outcrop

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Free face
Down-slope shape: Concave
Across-slope shape: Concave

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 0 inches to lithic bedrock

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 8
Hydrologic Soil Group: D

Typical profile

0 to 60 inches: Unweathered bedrock

Minor Components

Unnamed, eroded

Percent of map unit: 5 percent

Unnamed

Percent of map unit: 5 percent

Db—Delhi fine sand

Map Unit Setting

Elevation: 30 to 1,400 feet
Mean annual precipitation: 10 to 16 inches
Mean annual air temperature: 59 to 64 degrees F
Frost-free period: 225 to 310 days

Map Unit Composition

Delhi and similar soils: 85 percent
Minor components: 15 percent

Description of Delhi

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy alluvium derived from granite

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Frequency of ponding: None
Available water capacity: Low (about 4.4 inches)

Interpretive groups

Farmland classification: Prime farmland if irrigated
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 4e
Hydrologic Soil Group: A

Typical profile

0 to 18 inches: Fine sand
18 to 60 inches: Sand

Minor Components

Unnamed

Percent of map unit: 5 percent
Landform: Depressions

Tujunga loamy sand

Percent of map unit: 5 percent

Unnamed

Percent of map unit: 5 percent

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Appendix D Wetland Data Forms

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: West Valley Logistics Center | City/County: City of Fontana | Sampling Date: 3/27/13

Applicant/Owner: Hillwood Investment Properties | State: CA | Sampling Point: 1

Investigator(s): Chris Johnson & Richard Beck | Section, Township, Range: T1S, R5W, S33 SBBM

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 34 02' 36.78" | Long: 117 24' 59.95" | Datum: NAD 83

Soil Map Unit Name: Delhi Fine Sand | NWI classification:

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 (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	30	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	30 %		
Herb Stratum			
1. *Bromus diandrus*	40	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	40 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 45 % | % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	30	x 3 =	90
FACU species		x 4 =	0
UPL species	40	x 5 =	200
Column Totals:	70 (A)		290 (B)

Prevalence Index = B/A = 4.14

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.

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[3]	Remarks
0-18	10yr 4/3	100					Loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

No hydric soil indicators present. Very sandy soils indicating good drainage/infiltration; no redox concentrations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ 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)
- ☐ Thin Muck Surface (C7)
- ☐ 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):

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: West Valley Logistics Center | City/County: City of Fontana | Sampling Date: 3/27/13

Applicant/Owner: Hillwood Investment Properties | State: CA | Sampling Point: 2

Investigator(s): Chris Johnson & Richard Beck | Section, Township, Range: T1S, R5W, S33 SBBM

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 34 02' 36.78" | Long: 117 24' 59.95" | Datum: NAD 83

Soil Map Unit Name: Delhi Fine Sand | NWI classification:

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 (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	30	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	30 %		
Herb Stratum			
1. *Bromus Diandrus*	40	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	40 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 45 % | % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	30	x 3 =	90
FACU species		x 4 =	0
UPL species	40	x 5 =	200
Column Totals:	70 (A)		290 (B)

Prevalence Index = B/A = 4.14

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.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-18	10yr 4/3	100					Loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

No hydric soil indicators present. Very sandy soils, no redox concentrations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ 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)
- ☐ Thin Muck Surface (C7)
- ☐ 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):

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: West Valley Logistics Center | City/County: City of Fontana | Sampling Date: 3/27/13

Applicant/Owner: Hillwood Investment Properties | State: CA | Sampling Point: 3

Investigator(s): Chris Johnson & Richard Beck | Section, Township, Range: T1S, R5W, S33 SBBM

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 34 02' 37.48" | Long: 117 24' 56.36" | Datum: NAD 83

Soil Map Unit Name: Delhi Fine Sand | NWI classification:

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 (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	30	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	30 %		
Herb Stratum			
1. *Bromus Diandrus*	40	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	40 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 45 % | % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	30	x 3 =	90
FACU species		x 4 =	0
UPL species	40	x 5 =	200
Column Totals:	70 (A)		290 (B)

Prevalence Index = B/A = 4.14

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.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

SOIL

Sampling Point: 3

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[3]	Remarks
0-18	10yr 4/3	100					Loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

No hydric soil indicators present. Very sandy soils, no redox concentrations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ 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)
- ☐ Thin Muck Surface (C7)
- ☐ 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):

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: West Valley Logistics Center | City/County: City of Fontana | Sampling Date: 3/27/13

Applicant/Owner: Hillwood Investment Properties | State: CA | Sampling Point: 4

Investigator(s): Chris Johnson & Richard Beck | Section, Township, Range: T1S, R5W, S33 SBBM

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 34 02' 37.71" | Long: 117 24' 54.56" | Datum: NAD 83

Soil Map Unit Name: Delhi Fine Sand | NWI classification:

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 ○	
Hydric Soil Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks: Area appears to be impacted impacted by off-road vehicle use.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	30	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	30 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 45 % | % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	30	x 3 =	90
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	30 (A)		90 (B)

Prevalence Index = B/A = 3.00

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.

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: Observations of adventitious roots were observed occurring likely in response to inundation or soil saturation.

SOIL

Sampling Point: 4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-18	10yr 5/4	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ 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)
- ☐ Thin Muck Surface (C7)
- ☐ 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):

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: West Valley Logistics Center | City/County: City of Fontana | Sampling Date: 3/27/13

Applicant/Owner: Hillwood Investment Properties | State: CA | Sampling Point: 5

Investigator(s): Chris Johnson & Richard Beck | Section, Township, Range: T1S, R5W, S33 SBBM

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 34 02' 37.67" | Long: 117 24' 54.70" | Datum: NAD 83

Soil Map Unit Name: Delhi Fine Sand | NWI classification:

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 ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	30	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	30 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

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

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	30	x 3 =	90
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	30 (A)		90 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

- [x] Dominance Test is >50%
- [x] 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.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks:

SOIL

Sampling Point: 5

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[3]	Remarks
0-18	10YR 3/1	100	10YR 5/1	30	D	M	Clay Loam	Very smooth texture

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydric soil indicators were consistent with redox features having a value of 5 or more and a chroma of 2 or less. Redox features were located entirely within the upper 30 cm (12 inches).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ 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)
- ☐ Thin Muck Surface (C7)
- ☐ 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): 1-2"

Water Table Present? Yes ○ No ◉ Depth (inches):

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: West Valley Logistics Center | City/County: City of Fontana | Sampling Date: 3/27/13

Applicant/Owner: Hillwood Investment Properties | State: CA | Sampling Point: 6

Investigator(s): Chris Johnson & Richard Beck | Section, Township, Range: T1S, R5W, S33 SBBM

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 34 02' 32.36" | Long: 117 24' 58.29" | Datum: NAD 83

Soil Map Unit Name: Delhi Fine Sand | NWI classification:

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 ( )	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	70	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	70 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

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

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	70	x 3 =	210
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	70 (A)		210 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

- [x] Dominance Test is >50%
- [x] 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.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks:

SOIL

Sampling Point: 6

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture[3]	Remarks
0-18	10YR 3/2	100	5YR 4/6	3	RM	PL	Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Limited redox concentrations. Does not meet redox percentage thresholds. No other evidence noted.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ 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)
- ☐ Thin Muck Surface (C7)
- ☐ 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):

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: No hydrology noted. Some morphological adaptations (rooting) noted. Drainage area is small and infiltration is consistent w/soil survey which states that Delhi Fine Sands are somewhat excessively drained with no flooding and no ponding.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: West Valley Logistics Center | City/County: City of Fontana | Sampling Date: 3/27/13

Applicant/Owner: Hillwood Investment Properties | State: CA | Sampling Point: 7

Investigator(s): Chris Johnson & Richard Beck | Section, Township, Range: T1S, R5W, S33 SBBM

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 34 02' 33.65" | Long: 117 24' 41.33" | Datum: NAD 83

Soil Map Unit Name: Delhi Fine Sand | NWI classification:

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 (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	25	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	25 %		
Herb Stratum			
1. *Erodium botrys (StorksBill)*	15	Yes	FACU
2. *Hirschfeldia incana (Meditter. Hoary-Mustard)*	10	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	25 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 50 % | % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	25	x 3 =	75
FACU species	15	x 4 =	60
UPL species	10	x 5 =	50
Column Totals:	50 (A)		185 (B)

Prevalence Index = B/A = 3.70

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.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks:

SOIL

Sampling Point: 7

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[3]	Remarks
0-18	10yr 3/4	100					Loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ 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)
- ☐ Thin Muck Surface (C7)
- ☐ 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):

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: West Valley Logistics Center | City/County: City of Fontana | Sampling Date: 3/27/13

Applicant/Owner: Hillwood Investment Properties | State: CA | Sampling Point: 8

Investigator(s): Chris Johnson & Richard Beck | Section, Township, Range: T1S, R5W, S33 SBBM

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): none | Slope (%): 0-1

Subregion (LRR): C - Mediterranean California | Lat: 34 02' 33.06" | Long: 117 24' 41.35" | Datum: NAD 83

Soil Map Unit Name: Delhi Fine Sand | NWI classification:

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 (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	5	No	FAC
2.			
3.			
4.			
5.			
Total Cover:	5 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 70 % | % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species	5	x 3 =	15
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	5 (A)		15 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

- [ ] Dominance Test is >50%
- [x] 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.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: Primarily bare ground.

SOIL

Sampling Point: 8

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[3]	Remarks
0-18	10yr 4/4	100					Loamy clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ 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)
- ☐ Thin Muck Surface (C7)
- ☐ 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):

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:

Minimal surface soil cracks observed.

Appendix E Jurisdictional Determination Forms

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): April 2013

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Los Angeles District Office, West Valley Logistics Center

C. PROJECT LOCATION AND BACKGROUND INFORMATION: West Valley Logistics Center – Drainage A
State: California County/parish/borough: San Bernardino City: City of Fontana
Center coordinates of site (lat/long in degree decimal format): Lat. 34.039817° **N**, Long. -117.415001° **W**.
Universal Transverse Mercator: Zone 11
Name of nearest waterbody: Santa Ana River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): Santa Ana, HUC No. 18070203
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☒ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: N/A acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Pick List**
      Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **See Section IV.B.**

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **None Present**.

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size:
Drainage area:
Average annual rainfall:
Average annual snowfall:

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **2** tributaries before entering TNW.

Project waters are **___** river miles from TNW.
Project waters are ___ river miles from RPW.
Project waters are ___ aerial (straight) miles from TNW.
Project waters are **___** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW[5]:
Tributary stream order, if known: N/A

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain:
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: ___ feet
Average depth: ___ feet
Average side slopes: ___

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation Type/% cover:	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:

Tributary provides for:
Estimate average number of flow events in review area/year:
Describe flow regime:
Other information on duration and volume:

Surface flow characteristics:

Subsurface flow: Explain findings:
☐ Dye (or other) test performed:

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: No surface water noted.
Identify specific pollutants, if known:

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size:

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is**: Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: See additional comments on page 9.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

     Provide estimates for jurisdictional waters in the review area (check all that apply):
     - ☐ Tributary waters: linear feet width (ft).
     - ☐ Other non-wetland waters: acres.

       Identify type(s) of waters:

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

[8]See Footnote # 3.

Provide estimates for jurisdictional waters within the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

- ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.
- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
- ☐ Which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ From which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ Which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain:
- ☐ Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:
- ☐ Wetlands: acres.

[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC,*" the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **See Section IV.B.**
- ☐ Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): ____ linear feet, _____ width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name:
  - **Fontana, California, dated 1967 (photorevised 1980)**
- ☒ USDA Natural Resources Conservation Service Soil Survey:
  - **Custom Soil Resource Report for San Bernardino County, Southwestern Part, and Western Riverside Area, CA April 1, 2013**
- ☒ National wetlands inventory map(s). Cite name:
  - **U.S. Fish & Wildlife Service NWI Map dated April 1, 2013**
- ☐ State/Local wetland inventory map(s):
- ☒ FEMA/FIRM maps:
  - **No. 06065C0045G**
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): **Eagle Aerial Imaging, 2011**
  or ☒ Other (Name & Date): **Google Earth (March 2013)**
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Applicable/supporting case law:
- ☒ Applicable/supporting scientific literature:
  - **Biological Resources Assessment, prepared by RBF Consulting, dated March 2013**
  - **Jurisdictional Delineation, prepared by RBF Consulting, dated April 2013**
- ☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Drainage A is an ephemeral drainage that traverses the site from west to east within Parcel 3. This drainage feature is a first order stream that enters the project site as a narrow ephemeral drainage at the foothills of the Jurupa Mountains. Observations of an OHWM were noted within Drainage A ranging from 1 to 6 feet in width and totaling 0.09-acre. Evidence of the OHWM included a clear, natural line impressed on the bank, changes in the character of soils (e.g. deposition), and the presence of litter and debris. Drainage A continues on-site for approximately 1,092 LF before it ultimately infiltrates into the ground surface. No surface water was present within Drainage A during the site visit. The drainage terminates onsite in a topographic low point that has been significantly impacted by off-road vehicle use. At this location an OHWM and hydrophytic vegetation was absent as they were from similar areas identified during the site visit. Flows or precipitation that collects in these areas of the site infiltrate the ground surface. High infiltration rates are further supported by the soils report description of the Delhi Fine Sand drainage class, in which these areas are found. These soils are described as somewhat excessively drained with no frequency of flooding or ponding.

Drainage A is located approximately 3 miles west of the Santa Ana River. Drainages A did not exhibit a surface water connection to a river, lake, ocean, or other body of water. Drainage A has a small drainage area and contains vegetation typical of upland areas. The drainage is an intrastate isolated water with no apparent interstate or foreign commerce connection.

Drainage A is located within the Delhi Fine Sand map unit which consists of somewhat excessively drained soils with parent material consisting of sandy alluvium derived from granite. These soils are found on alluvial fans, with an elevation for this map unit at 30 to 1,400 feet. Mean annual precipitation is 10-16 inches. The mean annual air temperature is 59 to 64 degrees F with a frost-free period of 225 to 310 days. In a typical profile 0 to 10 inches is fine sand and 18 to 60 inches is sand. From 0 to 18 inches, the soils are pale-brown (10YR 6/3) fine sand, brown (10YR 5/3) when moist. The depth to restrictive feature is more than 80 inches and a depth to water table more than 80 inches. This soil drainage class is somewhat excessively drained with no flooding and no ponding as identified in the soil survey. The available water capacity is low (about 4.4 inches). The map unit composition consists of minor components of unnamed soils (10%) and Tujunga loamy sand (5%).soils (3%). Runoff is very slow and the hazard of soiling blowing is moderate.

Vegetation within Drainage A was comprised predominantly of invasive species of which the majority was Castor bean (*Ricinus communis*). Other plant species noted within the drainage consisted of fiddleneck (*Amsinckia douglasiana)*, common sunflower (*Helianthus annuus*), telegraph weed (*Heterotheca grandiflora*), tree tobacco (*Nicotiana glauca*), London rocket (*Sisymbrium irio*), and red-stemmed filaree (*Erodium cicutarium*).

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): April 2013

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Los Angeles District Office, West Valley Logistics Center

C. PROJECT LOCATION AND BACKGROUND INFORMATION: West Valley Logistics Center – Drainage A1
State: California County/parish/borough: San Bernardino City: City of Fontana
Center coordinates of site (lat/long in degree decimal format): Lat. 34.035629° **N**, Long. -117.416636° **W**.
Universal Transverse Mercator: Zone 11
Name of nearest waterbody: Santa Ana River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): Santa Ana, HUC No. 18070203
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☒ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: N/A acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Pick List**
      Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **See Section IV.B.**

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **None Present**.

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size:
Drainage area:
Average annual rainfall:
Average annual snowfall:

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **2** tributaries before entering TNW.

Project waters are **___** river miles from TNW.
Project waters are ___ river miles from RPW.
Project waters are ___ aerial (straight) miles from TNW.
Project waters are **___** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW[5]:
Tributary stream order, if known: N/A

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:
- ☐ Natural
- ☐ Artificial (man-made). Explain:
- ☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: ___ feet
Average depth: ___ feet
Average side slopes: ___

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation Type/% cover:	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:

Tributary provides for:
Estimate average number of flow events in review area/year:
Describe flow regime:
Other information on duration and volume:

Surface flow characteristics:

Subsurface flow: Explain findings:
- ☐ Dye (or other) test performed:

Tributary has (check all that apply):
- ☐ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

- ☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: No surface water noted.
Identify specific pollutants, if known:

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size:

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is**: Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: See additional comments on page 9.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

     Provide estimates for jurisdictional waters in the review area (check all that apply):
     - ☐ Tributary waters: linear feet width (ft).
     - ☐ Other non-wetland waters: acres.

       Identify type(s) of waters:

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

[8]See Footnote # 3.

Provide estimates for jurisdictional waters within the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

- ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.
- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
- ☐ Which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ From which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ Which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain:
- ☐ Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:
- ☐ Wetlands: acres.

[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **See Section IV.B.**
- ☐ Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): ____ linear feet, _____ width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name:
  - **Fontana, California, dated 1967 (photorevised 1980)**
- ☒ USDA Natural Resources Conservation Service Soil Survey:
  - **Custom Soil Resource Report for San Bernardino County, Southwestern Part, and Western Riverside Area, CA April 1, 2013**
- ☒ National wetlands inventory map(s). Cite name:
  - **U.S. Fish & Wildlife Service NWI Map dated April 1, 2013**
- ☐ State/Local wetland inventory map(s):
- ☒ FEMA/FIRM maps:
  - **No. 06065C0045G**
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): **Eagle Aerial Imaging, 2011**
  or ☒ Other (Name & Date): **Google Earth (March 2013)**
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Applicable/supporting case law:
- ☒ Applicable/supporting scientific literature:
  - **Biological Resources Assessment, prepared by RBF Consulting, dated March 2013**
  - **Jurisdictional Delineation, prepared by RBF Consulting, dated April 2013**
- ☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Drainage A1 enters the site as a very narrow ephemeral drainage located within the southwest of the project site within Parcel 4. The drainage originates at the base of the foothills of the Jurupa Mountains running from west to east. Observations of an OHWM consisted of a clear natural scour line impressed on the bank. This drainage was 1 foot in width and extended 236 ft until the OHWM became discontinuous and was no longer observed. Flows at the terminus of this drainage either infiltrate or sheet flow across the project site.

Drainage A1 is located approximately 2.7 miles west of the Santa Ana River. Drainages A1 did not exhibit a surface water connection to a river, lake, ocean, or other body of water. Drainage A1 has a very small drainage area and contains vegetation typical of upland areas. The drainage is an intrastate isolated water with no apparent interstate or foreign commerce connection.

Drainage A1 is located within the Cieneba Sandy Loam map unit which consists of somewhat excessively drained soils with parent material consisting of residuum weathered from granite. These soils are found on hills, with an elevation for this map unit at 500 to 4,000 feet. From 0 to 8 inches, the soils are brown (10YR 5/3) sandy loam, dark brown (10YR 3/3) when moist; weak, fine, granular structure. From 8 to 14 inches soils are pale-brown (10YR 6/3) sandy loam, brown (10YR 5/3) when moist; weak, fine subangular blocky structure. The depth to restrictive feature is 14 to 18 inches to paralithic bedrock and a depth to water table more than 80 inches. This soil drainage class is somewhat excessively drained with no flooding and no ponding as identified in the soil survey. The available water capacity is very low (about 1.4 inches). The map unit composition consists of minor components of unnamed soils (5%) and Rick Outcrop (5%). Runoff is rapid and the erosion hazard is moderate if the soils are not left bare. Soils in this complex are used for watershed and grazing during the spring. This soil series is located within the foothills of the Jurupa Mountains near the projects western border.

Vegetation within Drainage A1 was comprised of Castor bean (*Ricinus communis*), fiddleneck (*Amsinckia douglasiana),* common sunflower (*Helianthus annuus*), tree tobacco (*Nicotiana glauca*), and red-stemmed filaree (*Erodium cicutarium*).

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): April 2013

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Los Angeles District Office, West Valley Logistics Center

C. PROJECT LOCATION AND BACKGROUND INFORMATION: West Valley Logistics Center – Drainage B
State: California County/parish/borough: San Bernardino City: City of Fontana
Center coordinates of site (lat/long in degree decimal format): Lat. 34.047384° **N**, Long. -117.407132° **W**.
Universal Transverse Mercator: Zone 11
Name of nearest waterbody: Santa Ana River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): Santa Ana, HUC No. 18070203
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are No** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☒ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: N/A acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Pick List**
      Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **See Section IV.B.**

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **None Present**.

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size:
Drainage area:
Average annual rainfall:
Average annual snowfall:

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **2** tributaries before entering TNW.

Project waters are **___** river miles from TNW.
Project waters are ___ river miles from RPW.
Project waters are ___ aerial (straight) miles from TNW.
Project waters are **___** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW[5]:
Tributary stream order, if known: N/A

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:
- ☐ Natural
- ☐ Artificial (man-made). Explain:
- ☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: ___ feet
Average depth: ___ feet
Average side slopes: ___

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation Type/% cover:	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:

Tributary provides for:
Estimate average number of flow events in review area/year:
Describe flow regime:
Other information on duration and volume:

Surface flow characteristics:

Subsurface flow: Explain findings:
- ☐ Dye (or other) test performed:

Tributary has (check all that apply):
- ☐ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

- ☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: No surface water noted.
Identify specific pollutants, if known:

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size:

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is**: Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: See additional comments on page 9.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

     Provide estimates for jurisdictional waters in the review area (check all that apply):
     - ☐ Tributary waters: linear feet width (ft).
     - ☐ Other non-wetland waters: acres.

       Identify type(s) of waters:

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

[8]See Footnote # 3.

Provide estimates for jurisdictional waters within the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

- ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.
- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
- ☐ Which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ From which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ Which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain:
- ☐ Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:
- ☐ Wetlands: acres.

[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **See Section IV.B.**
- ☐ Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): ____ linear feet, _____ width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name:
  - **Fontana, California, dated 1967 (photorevised 1980)**
- ☒ USDA Natural Resources Conservation Service Soil Survey:
  - **Custom Soil Resource Report for San Bernardino County, Southwestern Part, and Western Riverside Area, CA April 1, 2013**
- ☒ National wetlands inventory map(s). Cite name:
  - **U.S. Fish & Wildlife Service NWI Map dated April 1, 2013**
- ☐ State/Local wetland inventory map(s):
- ☒ FEMA/FIRM maps:
  - **No. 06065C0045G**
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): **Eagle Aerial Imaging, 2011**
  or ☒ Other (Name & Date): **Google Earth (March 2013)**
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Applicable/supporting case law:
- ☒ Applicable/supporting scientific literature:
  - **Biological Resources Assessment, prepared by RBF Consulting, dated March 2013**
  - **Jurisdictional Delineation, prepared by RBF Consulting, dated April 2013**
- ☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Drainage B is an ephemeral drainage that runs north to southeast across the project site within Parcel 7 south of Jurupa Avenue. The drainage feature begins at Jurupa Avenue where flows are collected at a low spot in the road and are conveyed across the project site. Flows are eventually conveyed off-site through agriculture operations and into an infiltration basin where their volume is eventually infiltrated.

Drainage B is approximately 1,169 linear feet. Evidence of the OHWM was observed within Drainage B and consisted of drift deposits, sediment deposition as well as the presence of litter and debris. The Corps OHWM ranged from 2 to 8 feet in width. No surface water was present within Drainage B during the site visit. Drainages B did not exhibit a surface water connection to a river, lake, ocean, or other body of water. Drainage B has a small drainage area and contains vegetation typical of upland areas. The drainage is an intrastate isolated water with no apparent interstate or foreign commerce connection. Drainage B is located approximately 2.86 miles from the Santa Ana River.

Drainage B is located within the Tujunga Loamy Sand map unit consists of somewhat excessively drained soils with parent material consisting of sandy alluvium derived from granite. These soils are found on alluvial fans, with an elevation for this map unit at 10 to 2,500 feet. Mean annual precipitation is 10-25 inches. The mean annual air temperature is 59 to 64 degrees F with a frost-free period of 280 to 350 days. In a typical profile 0 to 18 inches is gravelly loamy sand and 18 to 60 inches is loamy sand, coarse sand and loamy coarse sand. From 0 to 6 inches, soils are brown (10YR 5/3) loamy sand, dark brown (10YR 4/3) when moist; single grained; loose when dry or moist. From 6 to 18 inches soils are pale-brown (10YR 6/3) coarse sand, brown (10YR 5/3) when moist; single grained; loose when dry or moist. The depth to restrictive feature is more than 80 inches and a depth to water table more than 80 inches. This soil drainage class is somewhat excessively drained with rare flooding and no ponding as identified in the soil survey. The available water capacity is high (about 10.0 inches). The map unit composition consists of minor components of unnamed soils (5%) and Tujunga gravelly loamy sand (5%) and Hanford sandy loam (5%). Runoff is slow to very slow and the erosion hazard from water is slight.

Plant species noted within the drainage consisted of fiddleneck (*Amsinckia douglasiana),* common sunflower (*Helianthus annuus*), tree tobacco (*Nicotiana glauca*), and red-stemmed filaree (*Erodium cicutarium*).

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): April 2013

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Los Angeles District Office, West Valley Logistics Center

C. PROJECT LOCATION AND BACKGROUND INFORMATION: West Valley Logistics Center – Drainage B1
State: California County/parish/borough: San Bernardino City: City of Fontana
Center coordinates of site (lat/long in degree decimal format): Lat. 34.048080° **N**, Long. -117.406867° **W**.
Universal Transverse Mercator: Zone 11
Name of nearest waterbody: Santa Ana River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): Santa Ana, HUC No. 18070203
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☒ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: N/A acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Pick List**
      Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **See Section IV.B.**

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **None Present**.

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size:
Drainage area:
Average annual rainfall:
Average annual snowfall:

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **2** tributaries before entering TNW.

Project waters are **___** river miles from TNW.
Project waters are ___ river miles from RPW.
Project waters are ___ aerial (straight) miles from TNW.
Project waters are **___** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW[5]:
Tributary stream order, if known: N/A

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:
- ☐ Natural
- ☐ Artificial (man-made). Explain:
- ☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: ___ feet
Average depth: ___ feet
Average side slopes: ___

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation Type/% cover:	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:

Tributary provides for:
Estimate average number of flow events in review area/year:
Describe flow regime:
Other information on duration and volume:

Surface flow characteristics:

Subsurface flow: Explain findings:
- ☐ Dye (or other) test performed:

Tributary has (check all that apply):
- ☐ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

- ☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: No surface water noted.
Identify specific pollutants, if known:

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size:

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is**: Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: See additional comments on page 9.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

     Provide estimates for jurisdictional waters in the review area (check all that apply):
     - ☐ Tributary waters: linear feet width (ft).
     - ☐ Other non-wetland waters: acres.

       Identify type(s) of waters:

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

[8]See Footnote # 3.

Provide estimates for jurisdictional waters within the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
  - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

  - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.
- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
- ☐ Which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ From which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ Which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain:
- ☐ Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:
- ☐ Wetlands: acres.

[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **See Section IV.B.**
- ☐ Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): ____ linear feet, _____ width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name:
  - **Fontana, California, dated 1967 (photorevised 1980)**
- ☒ USDA Natural Resources Conservation Service Soil Survey:
  - **Custom Soil Resource Report for San Bernardino County, Southwestern Part, and Western Riverside Area, CA April 1, 2013**
- ☒ National wetlands inventory map(s). Cite name:
  - **U.S. Fish & Wildlife Service NWI Map dated April 1, 2013**
- ☐ State/Local wetland inventory map(s):
- ☒ FEMA/FIRM maps:
  - **No. 06065C0045G**
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): **Eagle Aerial Imaging, 2011**
  or ☒ Other (Name & Date): **Google Earth (March 2013)**
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Applicable/supporting case law:
- ☒ Applicable/supporting scientific literature:
  - **Biological Resources Assessment, prepared by RBF Consulting, dated March 2013**
  - **Jurisdictional Delineation, prepared by RBF Consulting, dated April 2013**
- ☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Drainage B1 is a small ephemeral tributary to Drainage B that runs north to southwest across the project site within Parcel 7 south of Jurupa Avenue. The drainage feature originates on-site within Parcel 7 and for continues for 67 linear feet before its confluence with Drainage B.

Evidence of the OHWM was observed within Drainage B1 and consisted of drift deposits, sediment deposition as well as the presence of litter and debris. No surface water was present within Drainage B1 during the site visit. The Corps OHWM was 3 feet in width through its entire length. Flows originating from B1 merge with Drainage B and are conveyed south of the project site across agricultural uses into a flood detention basin north of 11th Street. Flows entering the basin are held and are slowly infiltrated. No outlets to the infiltration basin are present.

Drainages B1 did not exhibit a surface water connection to a river, lake, ocean, or other body of water. Drainage B1 has a small drainage area and contains vegetation typical of upland areas. The drainage is an intrastate isolated water with no apparent interstate or foreign commerce connection. Drainage B1 is located approximately 2.84 miles from the Santa Ana River.

Drainage B1 is located within the Tujunga Loamy Sand map unit consists of somewhat excessively drained soils with parent material consisting of sandy alluvium derived from granite. These soils are found on alluvial fans, with an elevation for this map unit at 10 to 2,500 feet. Mean annual precipitation is 10-25 inches. The mean annual air temperature is 59 to 64 degrees F with a frost-free period of 280 to 350 days. In a typical profile 0 to 18 inches is gravelly loamy sand and 18 to 60 inches is loamy sand, coarse sand and loamy coarse sand. From 0 to 6 inches, soils are brown (10YR 5/3) loamy sand, dark brown (10YR 4/3) when moist; single grained; loose when dry or moist. From 6 to 18 inches soils are pale-brown (10YR 6/3) coarse sand, brown (10YR 5/3) when moist; single grained; loose when dry or moist. The depth to restrictive feature is more than 80 inches and a depth to water table more than 80 inches. This soil drainage class is somewhat excessively drained with rare flooding and no ponding as identified in the soil survey. The available water capacity is high (about 10.0 inches). The map unit composition consists of minor components of unnamed soils (5%) and Tujunga gravelly loamy sand (5%) and Hanford sandy loam (5%). Runoff is slow to very slow and the erosion hazard from water is slight.

Plant species found within Drainage B1 consisted of fiddleneck (*Amsinckia douglasiana),* common sunflower (*Helianthus annuus*), tree tobacco (*Nicotiana glauca*), and red-stemmed filaree (*Erodium cicutarium*).

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): April 2013

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Los Angeles District Office, West Valley Logistics Center

C. PROJECT LOCATION AND BACKGROUND INFORMATION: West Valley Logistics Center – Wetland 1
State: California County/parish/borough: San Bernardino City: City of Fontana
Center coordinates of site (lat/long in degree decimal format): Lat. 34.047384° **N**, Long. -117.407132° **W**.
Universal Transverse Mercator: Zone 11
Name of nearest waterbody: Santa Ana River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): Santa Ana, HUC No. 18070203
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☐ Office (Desk) Determination. Date:
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☒ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: N/A acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Pick List**
      Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **See Section IV.B.**

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **None Present**.

Summarize rationale supporting determination:

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size:
Drainage area:
Average annual rainfall:
Average annual snowfall:

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **2** tributaries before entering TNW.

Project waters are **___** river miles from TNW.
Project waters are ___ river miles from RPW.
Project waters are ___ aerial (straight) miles from TNW.
Project waters are **___** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW[5]:
Tributary stream order, if known: N/A

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain:
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: ___ feet
Average depth: ___ feet
Average side slopes: ___

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation Type/% cover:	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
Tributary geometry:
Tributary gradient (approximate average slope):

(c) Flow:

Tributary provides for:
Estimate average number of flow events in review area/year:
Describe flow regime:
Other information on duration and volume:

Surface flow characteristics:

Subsurface flow: Explain findings:
☐ Dye (or other) test performed:

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: No surface water noted.
Identify specific pollutants, if known:

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size:

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is**: Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: See additional comments on page 9.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

     Provide estimates for jurisdictional waters in the review area (check all that apply):
     - ☐ Tributary waters: linear feet width (ft).
     - ☐ Other non-wetland waters: acres.

       Identify type(s) of waters:

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

[8]See Footnote # 3.

Provide estimates for jurisdictional waters within the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

- ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.
- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
- ☐ Which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ From which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ Which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain:
- ☐ Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:
- ☐ Wetlands: acres.

[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC,*" the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **See Section IV.B.**
- ☐ Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): ____ linear feet, _____ width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name:
  - **Fontana, California, dated 1967 (photorevised 1980)**
- ☒ USDA Natural Resources Conservation Service Soil Survey:
  - **Custom Soil Resource Report for San Bernardino County, Southwestern Part, and Western Riverside Area, CA April 1, 2013**
- ☒ National wetlands inventory map(s). Cite name:
  - **U.S. Fish & Wildlife Service NWI Map dated April 1, 2013**
- ☐ State/Local wetland inventory map(s):
- ☒ FEMA/FIRM maps:
  - **No. 06065C0045G**
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): **Eagle Aerial Imaging, 2011**
  or ☒ Other (Name & Date): **Google Earth (March 2013)**
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Applicable/supporting case law:
- ☒ Applicable/supporting scientific literature:
  - **Biological Resources Assessment, prepared by RBF Consulting, dated March 2013**
  - **Jurisdictional Delineation, prepared by RBF Consulting, dated April 2013**
- ☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Wetland 1 is located in a topographical depression approximately 0.22 miles north of Drainage A. Primary hydrology indicators were observed within Wetland 1, which consisted of surface water and surface soils cracks. Vegetation within Wetland 1 consisted entirely of mulefat (*Baccharis salicifolia*); mulefat was also predominately found along the south and southwestern fringe of the wetland at slightly higher elevations. A reduced number of plant species were found within the wetland itself and exhibited exposed adventitious rooting. The exposed rooting adaptations suggest that water levels in this location are seasonally higher and support the mulefat scrub along the wetland fringe.

Wetland 1 does not directly or indirectly abut or adjoin an RPW or TNW and thus would not be considered a Corps jurisdictional wetland. Wetland 1 is located in a topograpihc depression and no observation of a surface water connection to a river, lake, ocean, or other body of water could be demonstrated. Due to the absence of a hydrological connection to an RPW and/or TNW the wetland is considered isolated.

Three (3) soil pits (SP3-SP5) were dug due to the presence of dominant hydrophytic vegetation (*Baccharis salicifolia)*. The soil pits were dug to approximately 18 inches and displayed matrix colors of 10YR 4/3 (SP 3), 10YR 5/4 (SP 4) and 10YR 3/1 with redox features 10YR 5/1 (SP 5). The soil texture consisted of either Loamy Sand (SP3) or Clay Loam (SP 4-5). Soil pit 5 exhibited hydric soil characteristics consistent with a depleted dark surface.