
APPENDIX C: BIOLOGICAL TECHNICAL REPORT

WATERMAN LOGISTICS CENTER

Habitat Assessment

Prepared For:

Hillwood Investment Properties

901 Via Piemonte, Suite 175
Ontario, California 91764
Contact: Mr. John Schaefer
909.380.7292

Prepared By:



3210 East Guasti Road, Suite 100
Ontario, California 91761
Contact: Thomas J. McGill, Ph.D.
909.974.4907

September 2014

JN: 142435

WATERMAN LOGISTICS CENTER

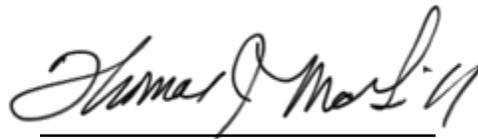
CITY OF SAN BERNARDINO, CALIFORNIA

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.



Ryan Winkleman
Biologist
Natural Resources



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

September 2014

Executive Summary

Hillwood Investment Properties proposes to build a warehouse and industrial assembly and distribution facility on a site located in the City of San Bernardino, San Bernardino County, California. The project site is located within a developed area in southwestern San Bernardino County. Surrounding development has converted natural habitats into residential, commercial, and industrial land uses. The majority of the project site was historically used for a building materials business and a portion of the site is still occupied by a truck repair yard and a single family home. The project site has been routinely subject to human disturbances (i.e., disking activities, development), and no longer supports native vegetation or native plant communities. These disturbances have degraded the on-site plant communities and limited their ability to provide suitable habitat for sensitive biological resources.

No special-status plant or wildlife species were observed on the project site during the habitat assessment. Based on habitat requirements for specific species, availability and quality of habitats needed by sensitive plant species, it was determined that the project site does not provide suitable habitat for any of the sensitive plant species known to occur within the general area. Furthermore, it was determined through the course of this habitat assessment that the plant communities on the project site have a low potential to provide suitable habitat for burrowing owl, western mastiff bat, and western yellow bat. All other sensitive wildlife species are presumed absent.

After conducting the habitat assessment, no jurisdictional drainage or wetland features were observed on the project site that would be considered jurisdictional by the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or California Department of Fish and Wildlife (CDFW).

East Twin Creek borders the eastern boundary of the project site. This concrete-lined drainage feature qualifies as both “Waters of the U.S.” and “Waters of the State” and thus falls under the jurisdictional authority of the Corps, Regional Board, and CDFW. As part of the project, a storm drain outlet is proposed to be constructed along the western bank of the channel to transport stormwater flows during rain events. The storm drain outlet is proposed to be installed above of the Ordinary High Water Mark and thus would be exempt from having to obtain regulatory approvals from the Corps and Regional Board. However, the storm drain outlet would be installed within the jurisdictional boundary of the CDFW requiring the issuance of a Section 1602 Streambed Alteration Agreement.

Additionally, pursuant to the Migratory Bird Treaty Act and California Fish and Game Code, 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, 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. A burrowing owl pre-construction clearance survey is recommended prior to any ground disturbing activities in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation.

Table of Contents

Section 1	Introduction	1
1.1	Project Location	1
1.2	Project Description	1
Section 2	Methodology	7
2.1	Literature Review	7
2.2	Habitat Assessment and Field Investigation	7
Section 3	Existing Conditions	9
3.1	Local Climate	9
3.2	Topography and Soils	9
3.3	Surrounding Land Uses.....	9
Section 4	Discussion	11
4.1	Site Conditions	11
4.2	Vegetation.....	11
4.2.1	Ruderal	11
4.2.2	Disturbed	11
4.2.3	Developed.....	13
4.3	Wildlife	13
4.3.1	Amphibians	13
4.3.2	Reptiles.....	13
4.3.3	Avian.....	14
4.3.4	Mammals	14
4.4	Nesting Birds.....	14
4.5	Migratory Corridors and Linkages	15
4.6	Jurisdictional Areas	15
4.7	Sensitive Biological Resources	16
4.7.1	Sensitive Plants	16
4.7.2	Sensitive Wildlife	18
4.7.3	Sensitive Plant Communities.....	18
Section 5	Conclusion and Recommendations	19
Section 6	References	21

EXHIBITS

Exhibit 1: Regional Vicinity Map..... 2
Exhibit 2: Site Vicinity Map 3
Exhibit 3: Project Site Map..... 4
Exhibit 4: Depiction of Proposed Project..... 5
Exhibit 5: Soils Map10
Exhibit 6: Vegetation Map.....12
Exhibit 7: Critical Habitat Map.....17

APPENDIX

Appendix A Site Photographs
Appendix B Sensitive Habitats and Potentially Occurring Sensitive Plant and Wildlife Species

LIST OF ACRONYMS

CDFW	California Department of Fish and Wildlife
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
GIS	Geographic Information System
I	Interstate
NRCS	Natural Resources Conservation Service
RBF	RBF Consulting
Regional Board	Regional Water Quality Control Board
SR	State Route
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Section 1 Introduction

This report contains the findings of RBF Consulting's (RBF) habitat assessment for the proposed Waterman Logistics Center (project site or site) located in the City of San Bernardino, San Bernardino County, California. RBF biologists Travis J. McGill and Ryan Winkleman inventoried and evaluated the condition of the habitat within the project boundaries on July 24, 2014.

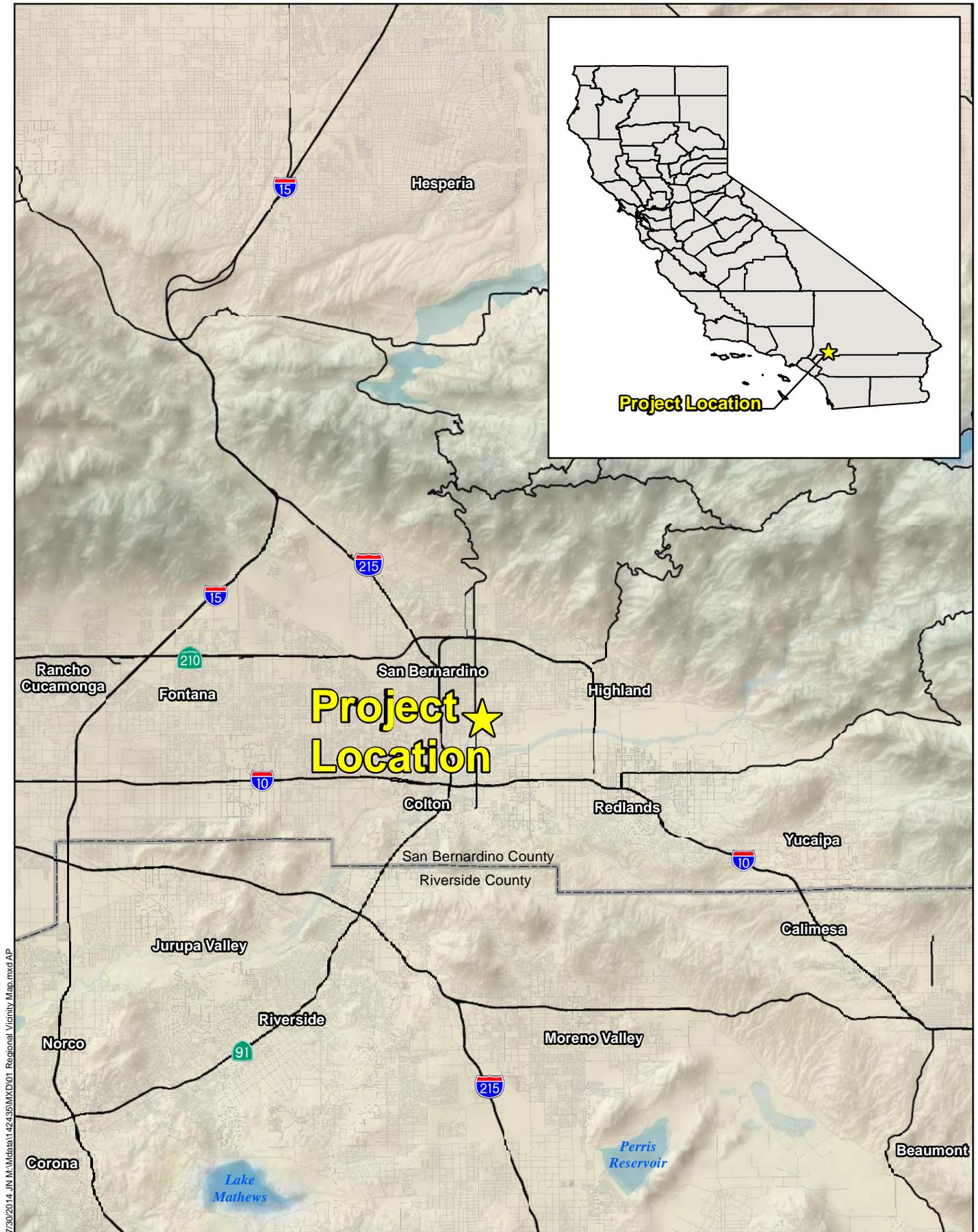
The habitat assessment was conducted to characterize existing site conditions and to assess the probability of occurrence for sensitive flora and fauna that could pose a constraint to development of the proposed project. Special attention was given to the suitability of the habitat on-site to support burrowing owl (*Athene cunicularia*), a California species of special concern, as well as several other sensitive species identified by the California Natural Diversity Data Base (CNDDB) and other electronic databases as potentially occurring on the project site.

1.1 PROJECT LOCATION

The project site is located north of Interstate 10 (I-10), west off State Route 210 (SR-210), and east of Interstate 215 (I-215), in the City of San Bernardino, San Bernardino County, California (Exhibit 1, *Regional Vicinity Map*). The project site is located in the San Bernardino South quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series in an un-sectioned area of Township 1 south, Range 4 west (Exhibit 2, *Project Vicinity Map*). Specifically, the project site is located east of S. Waterman Avenue, south of E. Rialto Avenue, west of East Twin Creek, and north of E. Mill Street (Exhibit 3, *Project Site Map*).

1.2 PROJECT DESCRIPTION

The project proposes development of a single approximately 426,000 square foot warehouse and industrial assembly and distribution facility, on an existing partially developed site consisting of 9 parcels totaling to approximately 19.7 gross acres (Exhibit 4, *Depiction of Proposed Project*). The large site was assembled by combining parcels with various ownerships including a now abandoned Union Pacific rail line right of way. The project is anticipated to be developed on a "speculative" basis, meaning the future building tenant has not yet been identified. The types of tenants targeted for occupancy of the facility would include "fulfillment" center tenants, 3PL warehousing, retail distribution, bulk storage and distribution, logistics, value add assembly, light manufacturing or similar uses.



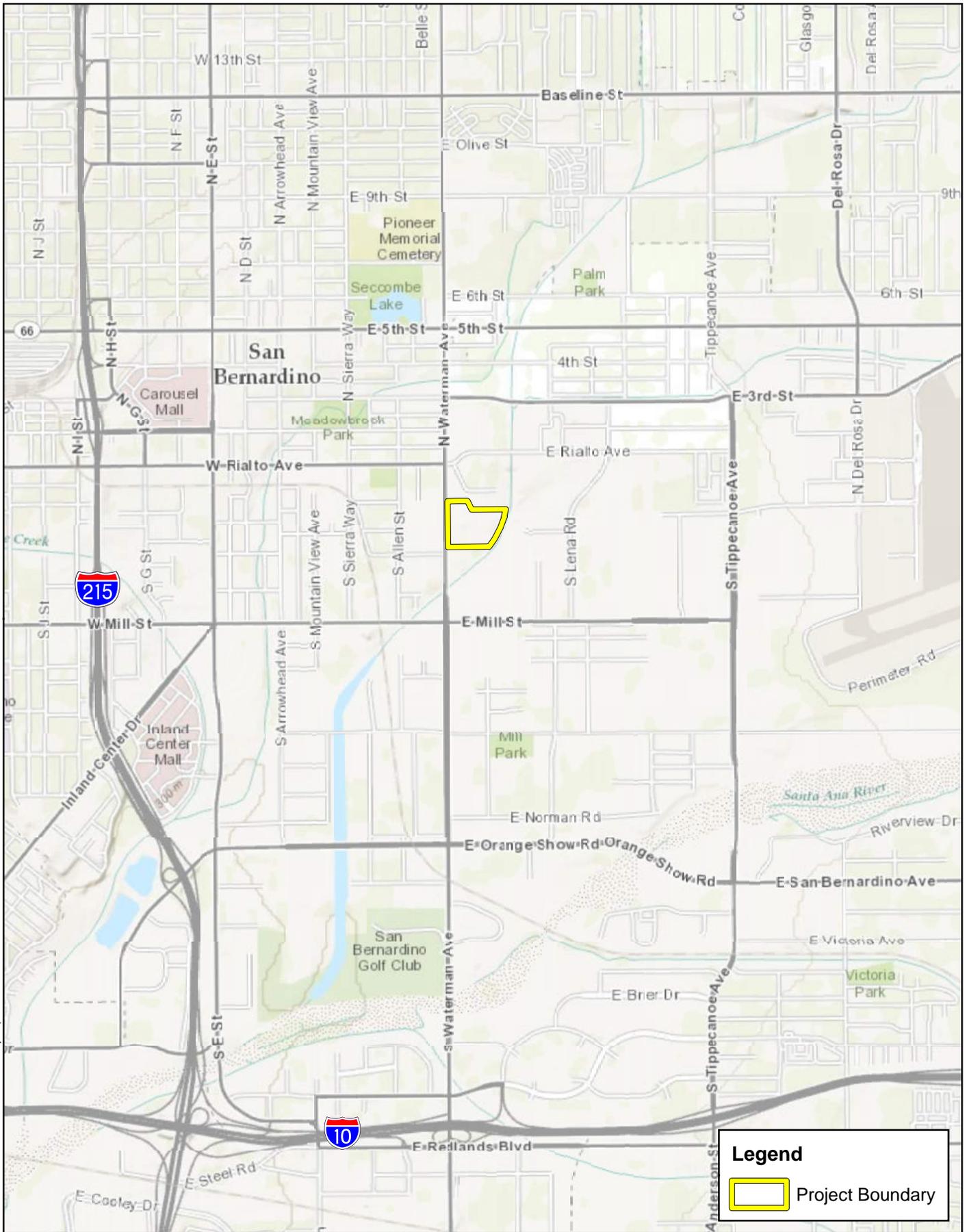
7/30/2014 J:\M\Mapdata\142435\MXD\01_Regional_Vicinity_Map.mxd AP



Source: ESRI Relief Map, National Highway Planning Network

WATERMAN LOGISTICS CENTER
HABITAT ASSESSMENT
Regional Vicinity Map

7/9/2014 J:\M:\Wdata\142435MXD\02_Vicinity Map.mxd



WATERMAN LOGISTICS CENTER
HABITAT ASSESSMENT

Project Vicinity Map



Source: San Bernardino County, ESRI Topographic Basemap

7/3/2014, J:\M:\data\1142435\WMD\03 Project Site.mxd



Legend

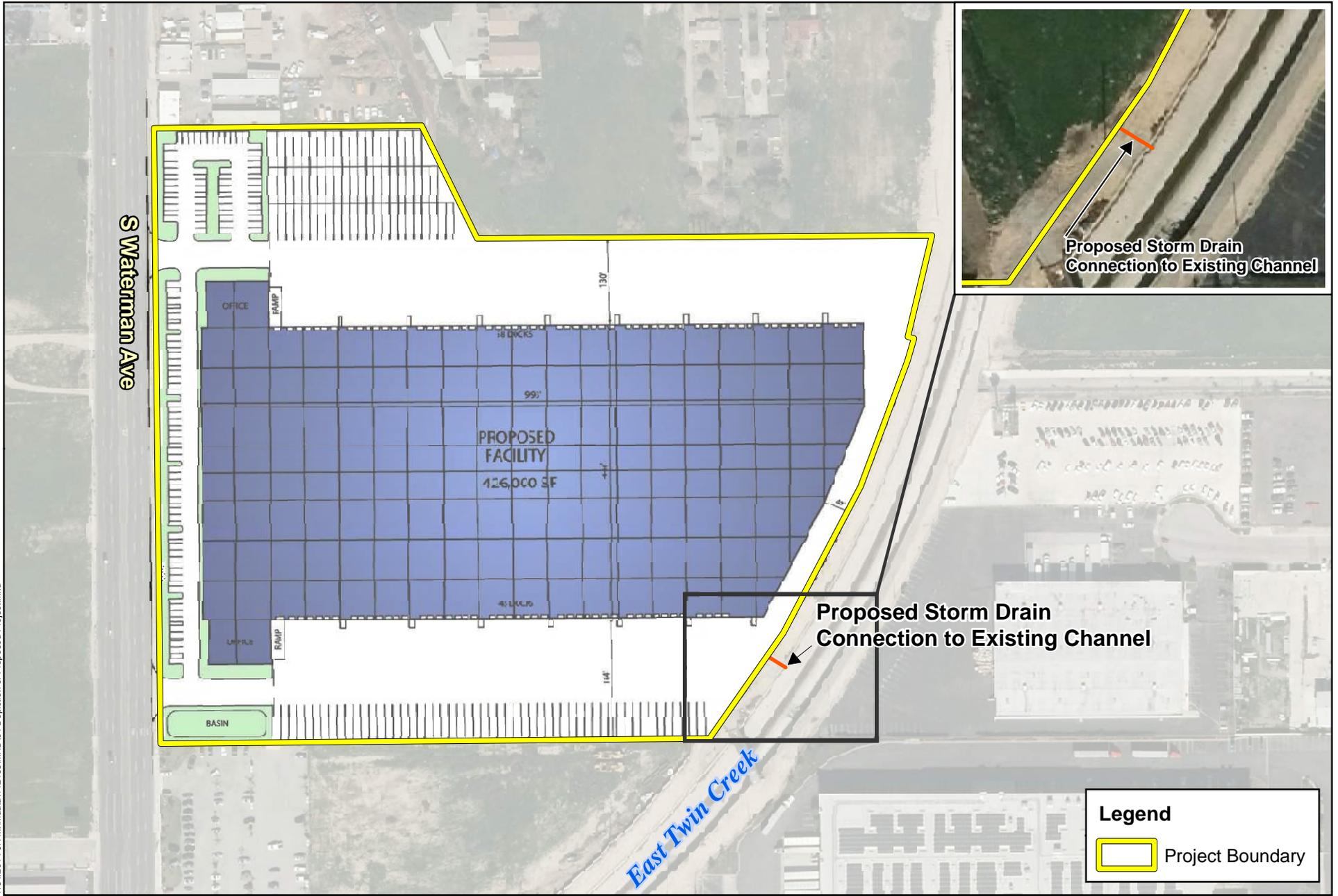
 Project Boundary

WATERMAN LOGISTICS CENTER
HABITAT ASSESSMENT
Project Site Map



Source: San Bernardino County, Eagle Aerial 2013

7/3/2014, J:\M:\data\1142435\MXD\04 Depiction of Proposed Project.mxd



Source: San Bernardino County, RGA Office of Architectural Design, Eagle Aerial 2013

WATERMAN LOGISTICS CENTER
HABITAT ASSESSMENT

Depiction of Proposed Project

The project site is currently designated as Office/Industrial Park (OIP) and Multi-family Residential (MFR) in the City's Zoning Code and Industrial and Residential in the City's General Plan.

As depicted on the proposed site plan, the proposed project's building area encompasses approximately 430,000 square feet of "cross dock" industrial warehouse space, associated site infrastructure, and associated parking. The warehouse structure will include 103 roll-up dock high doors on the north and south sides of the building and ramps. Office pods are planned for the northwest and southwest corners of the building near the Waterman Avenue frontage. The building interior clear height is anticipated to be up to 36' and the exterior concrete tilt up walls to be approximately 44' tall. The truck loading and trailer storage areas will be secured with fences and walls, with rolling gates at both entrances.

Parking is provided on site with 117 automobile parking stalls located along the western portion of the site adjacent to Waterman Avenue. Additional automobile parking stalls could be located within the truck court area. 117 truck and trailer parking stalls are proposed along the northerly and southerly portions of the project site.

The northeasterly 1.5 acres of the site is currently occupied by a truck repair facility that will be demolished as part of the project, while the westerly edge of the project adjacent to Waterman Avenue contains a small commercial building, and a vacant former lumberyard with several commercial buildings. A single family home also is in the rear of the property. The former rail line bisects the entire site diagonally.

Sewer improvements would be constructed within the existing Waterman Avenue utility corridor. These include a new six-inch lateral connection to an existing sewer pipeline on the north side of the project site; on the south side of the site, the existing eight-inch sewer pipeline would be extended approximately 300 feet, with a second six-inch pipe connected laterally to the extension.

Section 2 Methodology

RBF conducted a thorough literature review and records search to determine which sensitive biological resources have the potential to occur on or within the general vicinity of the project site. In addition, a general habitat assessment of the proposed project site was conducted. The field survey provided information of the existing conditions on the site and potential for sensitive biological resources to occur.

2.1 LITERATURE REVIEW

Prior to conducting the field visit, a literature review and records search was conducted for sensitive biological resources potentially occurring on or within the general 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's CNDDDB, the California Native Plant Society's (CNPS) *Electronic Inventory of Rare and Endangered Vascular Plants of California*, Calflora Database, compendia of special-status species published by CDFW, and United States Fish and Wildlife Service (USFWS) species listings.

Literature detailing biological resources previously observed near the project site and historical land uses were reviewed to understand the extent of disturbances to the habitats on-site. Standard field guides and texts were reviewed for habitat requirements of sensitive and non-sensitive biological resources, as well as the following resources:

- Calflora Database;
- CDFW compendia of special-status species;
- CDFW 2012 Staff Report on Burrowing Owl Mitigation;
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey; and
- USFWS Critical Habitat designations for Threatened and Endangered Species.

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

2.2 HABITAT ASSESSMENT AND FIELD INVESTIGATION

RBF biologists Travis J. McGill and Ryan Winkleman inventoried and evaluated the condition of the habitat on the project site on July 24, 2014. Plant communities identified on aerial photographs during the literature review were ground-truthed by walking meandering

transects through the plant communities and along boundaries between plant communities. The plant communities were evaluated for their potential to support sensitive plant and wildlife species. In addition, the biologists identified any jurisdictional features as well as natural corridors that may support the movement of wildlife through the area.

All plant and wildlife species observed during the habitat assessment, as well as dominant plant species within each plant community, were recorded. 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, presence of indicator species, condition of the plant communities, hydrology, and evidence of human use of the site were noted. The plant communities were classified in accordance with CDFW (2003) 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.

Section 3 Existing Conditions

3.1 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. Weather conditions during the surveys included temperatures in the mid-70s (degrees Fahrenheit) with minimal to no cloud cover.

3.2 TOPOGRAPHY AND SOILS

The project site is located in an area that is primarily developed and is relatively flat with no significant areas of topographic relief. The project site gently slopes to the southeast with on-site elevations ranging from 1,020 to 1,036 feet above mean sea level. According to the USDA NRCS Soil Survey, surface soils on and adjacent to the project site are comprised of Grangeville fine sandy loam (Gr) (Exhibit 5, *Soils Map*). These soils are somewhat poorly-drained, are found on alluvial fans, and are composed of alluvium derived from granite. The majority of the on-site soils have been mechanically disturbed from historic land use activities and routine grading resulting in the removal of most of the top soils from the project site. Additionally, the southwestern edge of the project site is developed consisting of remnant structures and concrete/asphalt improvements.

3.3 SURROUNDING LAND USES

The project site is bounded by residential, commercial, industrial, and government buildings as well as vacant land. The site is mostly vacant, with an abandoned building materials business on the western portion of the project site bordering Waterman Avenue, and an occupied truck repair business on the northeastern corner. The area north of the project site primarily consists of residential properties, the area northeast consists of several government facilities including the County Sheriff, the Registrar of Voters, and the Department of Public Health, and the area to the east and southeast of the project site consist of other commercial buildings including a large distribution center. Across Waterman Avenue, to the west, the area consists of a combination of auto-related businesses and vacant fields. East Twin Creek channel runs along the eastern boundary of the project site.

7/31/2014, J:\M:\data\1142435\WMD\05 Soils.mxd



Source: San Bernardino County, NRCS Soils Data Mart - ca677, Eagle Aerial 2013

WATERMAN LOGISTICS CENTER
HABITAT ASSESSMENT

Soils Map

Section 4 Discussion

4.1 SITE CONDITIONS

The project site is located within a developed area in southwestern San Bernardino County. Surrounding development has converted natural habitats into residential, commercial, and industrial land uses. Based on historical aerials much of the southern half of the project site was bladed and used by Presco Building Materials until 2009. Two (2) dirt access roads bisect the project site in an east to west direction on the northern portion of the project site. The northern dirt access road provides access to the truck repair facility on the northeastern corner of the site and the southern dirt access road provides access to the single family home on south of the truck repair facility. There are a couple commercial buildings on and paved lots on the western edge of the project site adjacent to Waterman Avenue. An abandoned Union Pacific railway runs diagonally through the site in a northwest to southeast direction. The remainder of the site generally consists of undeveloped, vacant land that is heavily disturbed and has been subject to varying degrees of human disturbance.

4.2 VEGETATION

The project site no longer supports undisturbed, native plant communities due to existing development on and within the general vicinity of the project site. As a result, three (3) heavily disturbed plant communities were observed within the boundaries of the project site during the habitat assessment (Exhibit 6, *Vegetation Map*). Plant communities observed on-site include ruderal, disturbed, and developed. These plant communities are described in further detail below.

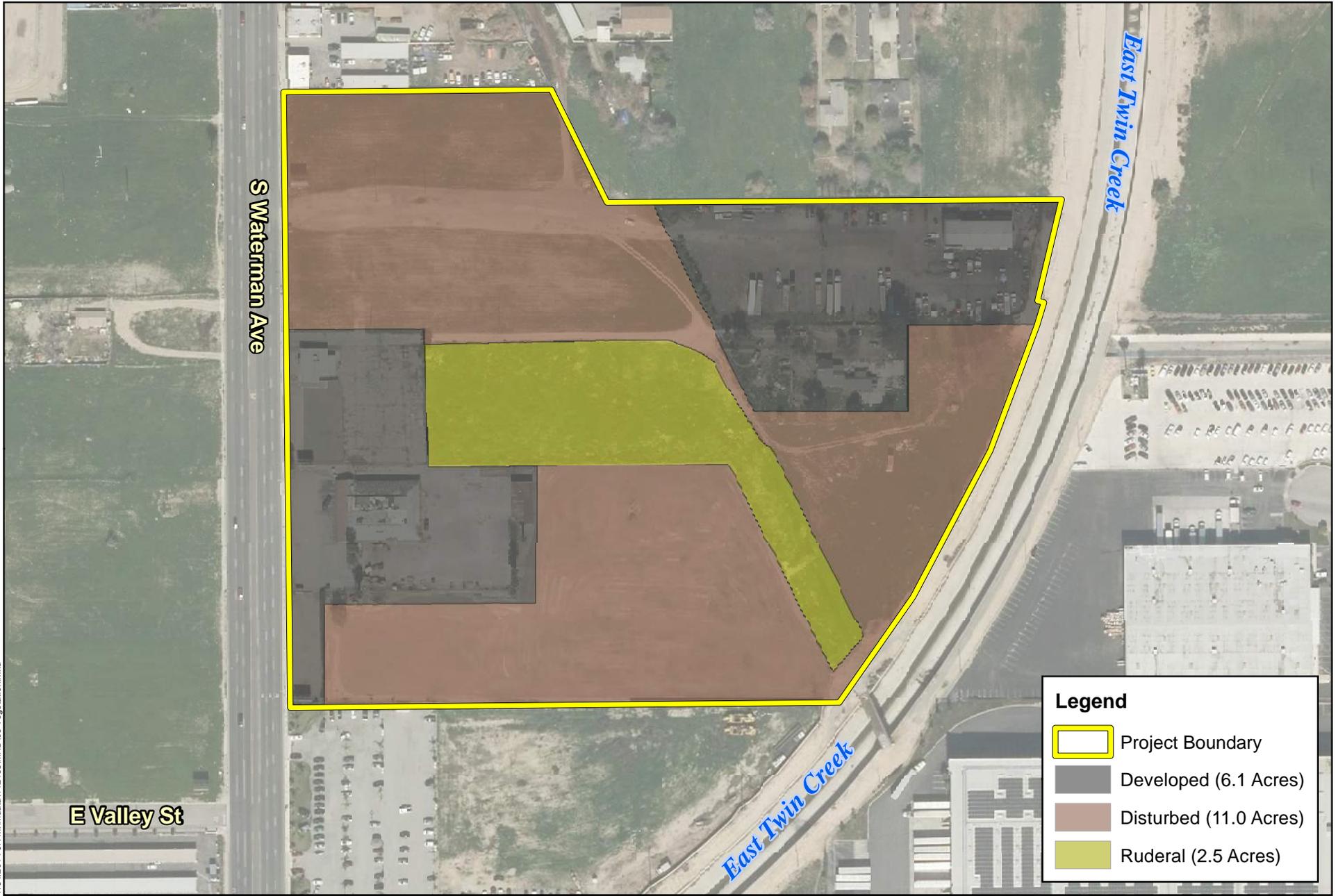
4.2.1 Ruderal

The center of the project site supports a ruderal plant community dominated by non-native grasses and early successional plant species. This plant community extends south from the central portion of the project site along the abandoned Union Pacific railway. The ruderal plant community is not subject to routine mowing/disking activities. Dominant plant species observed within this plant community include tumbleweed (*Salsola tragus*) and ripgut (*Bromus diandrus*). Other plant species observed within this plant community include Mediterranean grass (*Schismus* sp.), telegraph weed (*Heterotheca grandiflora*), red brome (*Bromus madritensis*), wild oat (*Avena* sp.), and London rocket (*Sisymbrium irio*).

4.2.2 Disturbed

A disturbed plant community is found on the northwest, southwest, and southeast portions of the project site. These areas have been subject to heavy disturbances associated with

7/31/2014, JN.M:\Mdata\1142435\MXD\06_Vegetation.mxd



Legend

-  Project Boundary
-  Developed (6.1 Acres)
-  Disturbed (11.0 Acres)
-  Ruderal (2.5 Acres)

WATERMAN LOGISTICS CENTER
HABITAT ASSESSMENT
Vegetation Map



Source: San Bernardino County, NRCS Soils Data Mart - ca677, Eagle Aerial 2013

mowing/disked activities and commercial land uses. The disturbed areas on the northwest corner and southwest portion of the project site are characterized by bare ground with sparse tumbleweed. The disturbed area on the southeast corner of the project site is dominated by tumbleweed and non-native grasses that are routinely mowed/disked. This disturbed area has several small debris piles and an old semi-truck trailer.

4.2.3 Developed

The developed areas are found on the northeastern corner of the project site and along the western edge of the project site adjacent to Waterman Avenue. These areas are generally devoid of vegetation; however, some weedy plant species and ornamentals have established/been planted. These include the former Presco Building Materials site, the occupied truck repair facility, and the single family home. The building materials site is bordered by a series of Mexican fan palms (*Washingtonia robusta*) and the truck repair facility is bordered by a row of eucalyptus trees (*Eucalyptus* sp.).

4.3 WILDLIFE

Plant communities provide food sources, along with foraging, nesting and denning sites, cover, and protection from adverse weather or predation. This section provides a discussion of those wildlife species observed, expected or not expected to occur on-site. The discussion is to be used as a general reference and is limited by the season, time of day, and weather condition in which the survey was conducted. Wildlife observations were based on calls, songs, scat, tracks, burrows, and actual sightings of animals.

4.3.1 Amphibians

No amphibian species were observed during the habitat assessment. Additionally, no drainage features with frequent sources of water that could support amphibian species occur on the project site. East Twin Creek borders the eastern boundary of the project site; however, the creek is concrete lined and does not support any vegetation. As a result, East Twin Creek is not expected to support any amphibians. No common or sensitive amphibians would be expected on the project site.

4.3.2 Reptiles

One lizard species was observed during the habitat assessment: western fence lizard (*Sceloporus occidentalis*). The project site consists of heavily disturbed, vacant land that has been subject to extensive impacts over the years that preclude a robust population of reptiles from becoming established on-site. These disturbances have reduced the quality and availability of suitable foraging and nesting habitat for many of the potentially occurring reptilian species. However, disturbed areas in the region, such as those present on the

project site, have the potential to support a number of reptilian species including, common side-blotched lizard (*Uta stansburiana*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), gopher snake (*Pituophis catenifer*), and alligator lizard (*Elgaria multicarinata*). Sensitive reptilian species are not expected to occur.

4.3.3 Avian

The project site provides a limited amount of foraging and cover habitat for avian species. Species observed and heard during the survey included red-tailed hawk (*Buteo jamaicensis*), killdeer (*Charadrius vociferus*), rock pigeon (*Columba livia*), Eurasian collared-dove (*Streptopelia decaocto*), mourning dove (*Zenaida macroura*), Allen's hummingbird (*Selasphorus sasin*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), Cassin's kingbird (*Tyrannus vociferans*), western kingbird (*Tyrannus verticalis*), American crow (*Corvus brachyrhynchos*), cliff swallow (*Petrochelidon pyrrhonota*), northern mockingbird (*Mimus polyglottos*), hooded oriole (*Icterus cucullatus*), house finch (*Haemorhous mexicanus*), and lesser goldfinch (*Spinus psaltria*).

4.3.4 Mammals

Due to heavy disturbance and surrounding development, the on-site plant communities provide limited habitat for mammalian species, and would only support those acclimated to human presence and disturbance. Most mammal species are nocturnal and are difficult to observe during a diurnal field visit. The only mammal detected during the field assessment was California ground squirrel (*Otospermophilus beecheyi*). Disturbed areas surrounded by development in the region have the potential to provide suitable habitat for cottontail rabbit (*Sylvilagus audubonii*), Botta's pocket gopher (*Thomomys bottae*), and deer mouse (*Peromyscus sp.*).

4.4 NESTING BIRDS

The project site primarily consists of heavily disturbed land that has been subjected to various degrees of human disturbance. On-site plant communities provide limited foraging and cover habitat for year-round/seasonal avian residents and migrating songbirds that could occur in the area. Ornamental vegetation associated with surrounding development, and on-site structures have the potential to provide suitable roosting opportunities for a number of owl species including barn owl (*Tyto alba*) and great horned owl (*Bubo virginianus*). During the habitat assessment, both male and female hooded orioles were observed flying in and out of a fan palm on the western edge of the project site. The behavior of these orioles suggested that there is an active nest within the fan palm.

4.5 MIGRATORY CORRIDORS AND LINKAGES

Habitat linkages provide links between larger undeveloped habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species but inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site is heavily disturbed and does not support any native plant communities, and does not have a connection to any undisturbed native plant communities. Further, the project site is surrounded by development. As a result, the project site does not support a wildlife movement corridor or linkage.

4.6 JURISDICTIONAL AREAS

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 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 CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

After conducting the habitat assessment, no drainage or wetland features were observed on the project site that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, the proposed project will not result in any impacts to Corps, Regional Board, or CDFW jurisdictional areas.

Drainage of the project site is accomplished by overland sheet flow and generally follows on-site topography that generally slopes to the southeast. East Twin Creek borders the eastern boundary of the project site. This concrete-lined drainage feature qualifies as both “Waters of the U.S.” and “Waters of the State” and thus falls under the jurisdictional authority of the Corps, Regional Board, and CDFW. As part of the project, a storm drain outlet is proposed to be constructed along the western bank of the channel. The storm drain outlet is proposed to be installed above the Ordinary High Water Mark and thus would be exempt from having to obtain regulatory approvals from the Corps and Regional Board. However, the storm drain outlet would be installed within the jurisdictional boundary of the CDFW

requiring the issuance of a Section 1602 Streambed Alteration Agreement. The storm drain outlet would only receive water during rain events and is not expected to result in any appreciable increase in discharge into the Santa Ana River. There should be no impacts to downstream habitats, including Critical Habitat. All project-related discharge would be released into the sewer system via the aforementioned sewer improvements.

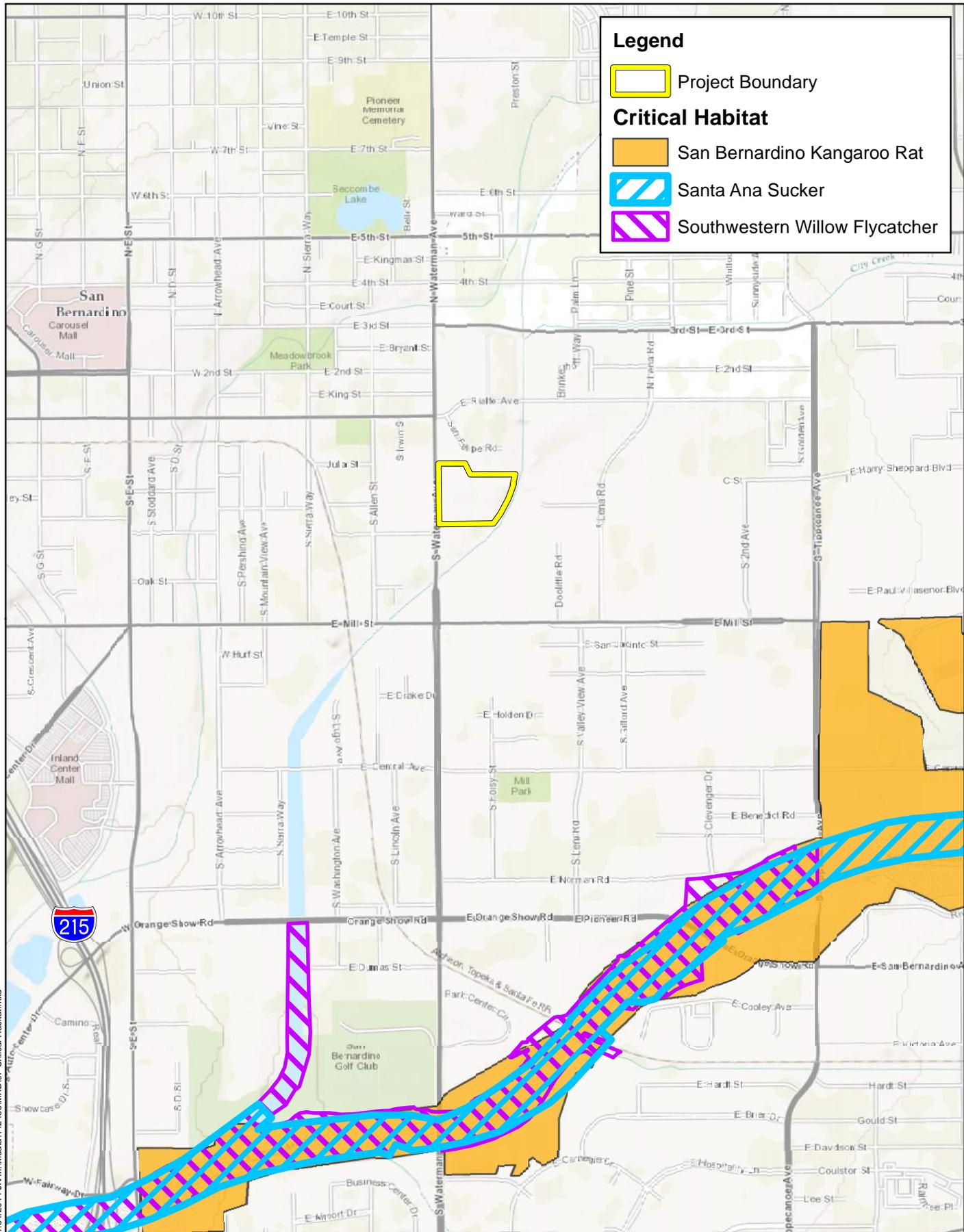
4.7 SENSITIVE BIOLOGICAL RESOURCES

The CNDDDB was queried for reported locations of listed and sensitive plant and wildlife species as well as sensitive natural plant communities within the San Bernardino South USGS 7.5-minute quadrangle. A search of published records of these species was conducted within this quadrangle using the CNDDDB Rarefind 5 online software. The CNPS Inventory of Rare and Endangered Vascular Plants of California supplied information regarding the distribution and habitats of vascular plants in the general vicinity of the project site. The habitat assessment was used to assess the ability of the plant communities found on-site to provide suitable habitat for relevant special-status plant and wildlife species. Only one quadrangle was queried due to the project site's isolation from undisturbed native habitat and surrounding development.

The literature search identified twenty (20) sensitive plant species, twenty-three (23) sensitive wildlife species, and three (3) sensitive habitats as having the potential to occur within the San Bernardino South quadrangle. Sensitive plant and wildlife species were evaluated for their potential to occur within the project boundaries 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 are presented in Appendix B, *Sensitive Habitats and Potentially Occurring Sensitive Plant and Wildlife Species*. Appendix B summarizes conclusions from analysis and field surveys regarding the potential occurrence of listed and sensitive plant and wildlife species within the project site. Additionally, the project site is not located within federally designated Critical Habitat for any species (Exhibit 7, *Critical Habitat*).

4.7.1 Sensitive Plants

Twenty (20) sensitive plant species have been recorded within the San Bernardino South quadrangle (refer to Appendix B). The long history of disturbance, continued grading of the site, existing development, and lack of natural vegetation have eliminated suitable habitat for all of the sensitive plant species that have the potential to occur in the general vicinity of the project site. Based on habitat requirements for specific species, availability and quality of habitats needed by sensitive plant species, it was determined that the project site does not provide suitable habitat for any of the sensitive plant species known to occur within the general area.



7/9/2014 J:\M:\Data\142435\MXD\07 Critical Habitat.mxd



Source: San Bernardino County, USFWS Critical Habitat Portal, ESRI Topographic Basemap

WATERMAN LOGISTICS CENTER
HABITAT ASSESSMENT
Critical Habitat Map

4.7.2 Sensitive Wildlife

Twenty-three (23) sensitive wildlife species have been recorded within the San Bernardino South quadrangle (refer to Appendix B). Based on the results of the habitat assessment, it was determined that the project site has a low potential to provide suitable habitat for burrowing owl, western mastiff bat, and western yellow bat. All remaining sensitive wildlife species are presumed absent.

4.7.3 Sensitive Plant Communities

The CNDDDB identifies Riversidean Alluvial Fan Sage Scrub, Southern Cottonwood Willow Riparian Forest, and Southern Riparian Scrub as having been identified in the San Bernardino South quadrangle. The project site primarily consists of heavily disturbed land that has been subject to various degrees of human disturbance. No CDFW sensitive plant communities occur within the boundaries of the project site.

Section 5 Conclusion and Recommendations

The project site is located within a developed area in southwestern San Bernardino County. Surrounding development has converted natural habitats into residential, commercial, and industrial land uses. The majority of the project site was historically used for a building materials business and a portion of the site is still occupied by a truck repair yard and a single family home. The project site has been routinely subject to human disturbances, and no longer supports native vegetation or native plant communities. These activities have degraded the on-site plant communities and limited their ability to provide suitable habitat for sensitive biological resources.

No special-status plant or wildlife species were observed on the project site. Based on habitat requirements for specific species, availability and quality of habitats needed by sensitive plant species, it was determined that the project site does not provide suitable habitat for any of the sensitive plant species known to occur within the general area.

It was determined through the course of this habitat assessment that the plant communities on the project site have a low potential to provide suitable habitat for burrowing owl, western mastiff bat, and western yellow bat. All other sensitive wildlife species are presumed absent.

Migratory Bird Treaty Act and Fish and Game Code

Nesting birds are protected pursuant to the Migratory Bird Treaty Act and CDFW Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 of the Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, nesting bird clearance surveys will be required prior to any vegetation removal or development that may disrupt the birds during the nesting season (generally from February 1 - August 31, but can vary annually based upon seasonal weather conditions). The pre-construction nesting bird clearance survey shall be conducted within 3 days prior to any ground disturbing activities. This clearance survey will ensure that no nesting birds will be disturbed during construction or vegetation removal activities. As long as development does not cause direct take of a bird or egg(s) or disrupt nesting behaviors, immediate protections would not be required. The biologist conducting the clearance survey should document a negative survey with a report indicating that no impacts to active avian nests will occur.

If an active avian nest is discovered during the pre-construction clearance survey, construction activities might have to be rerouted, a no-work buffer might have to be established around the nest, or construction may be delayed until the young have fledged. The size of the buffer shall be determined by the biologist in consultation with CDFW, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of

disturbance. Buffers for non-listed passerines and non-raptors should be 300 feet, while buffers for raptors or listed species should be 500 feet.

It is recommended that a biological monitor be present to delineate the boundaries of the buffer area if an active nest is detected and to monitor the nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the qualified biologist has determined that young birds have successfully fledged, a monitoring report shall be prepared and submitted for review and approval prior to initiating construction activities within the buffer area. The monitoring report shall summarize the results of the nest monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area without jeopardizing the survival of the young birds. Construction within the designated buffer area shall not proceed until the written authorization is received by the applicant from CDFW. Consequently, if avian nesting behaviors are disrupted, such as nest abandonment and/or loss of reproductive effort as a result of project construction, it would be considered "take" and is potentially punishable by fines and/or imprisonment.

No burrowing owl or sign were observed during the habitat assessment and it was determined that burrowing owl has a low potential to occur on the project site. However, concurrently with the pre-construction nesting bird clearance survey, it is recommended that a burrowing owl clearance survey be conducted in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation. Two pre-construction clearance surveys shall be conducted 14-30 days and 24 hours prior to ground disturbing activities to document the continued absence of burrowing owl from the project site.

Section 6 References

- Burt, W.H., 1986. *A Field Guide to the Mammals in North American North of Mexico*. Houghton Mifflin Company, Boston, Massachusetts.
- California Department of Conservation, California Geological Survey website, www.consrv.ca.gov.
- California Department of Fish and Wildlife, 2009. Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities.
- California Department of Fish and Wildlife, 2012. Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency.
- California Department of Fish and Wildlife, 2014. RareFind 5, California Natural Diversity Data Base, California.
- California Native Plant Society, 2014. Inventory of Rare and Endangered Plants of California. Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, California. Available at: <http://www.cnps.org/inventory>.
- Garrett, K. and J. Dunn, 1981. *Birds of Southern California*. Los Angeles Audubon Society. The Artisan Press, Los Angeles, California.
- Grinnell, J., 1933. *Review of the Recent Mammal Fauna of California*. University of California Publications in Zoology. 40:71-234.
- Hall, E.R., 1981. *The Mammals of North America*, Volumes I and II. John Wiley and Sons, New York, New York.
- Haug, E.A., B.A. Millsap, and M.S. Martell. 1993. Burrowing Owl (*Speotyto cunicularia*). In: A. Poole and F. Gill, editors, *Birds of North America*, No. 61. Philadelphia: The Academy of Natural Science; Washington DC: The American Ornithologists' Union.
- Hickman, J.C., ed. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press.
- Holland, R. F. 1986. Preliminary descriptions of the Terrestrial Natural Communities of California. Calif. Dept. of Fish and Game, Sacramento, CA.
- Ingles, L.G., 1965. *Mammals of the Pacific States*. Stanford University Press, Stanford, California.
- Laudenslayer, Jr., W.F., W.E. Grenfell, Jr., and D.C. Zeiner, 1991. *A Checklist of the Amphibians, Reptiles, Birds and Mammals of California*. California Fish and Game 77:109-141.
- Munz, P.A., 1974. *A Flora of Southern California*. University of California Press, Berkeley, California.

- Remsen, Jr., J.V., 1978. *Bird Species of Special Concern in California*. Non-game Wildlife Investigations. Wildlife Management Branch Administrative Report No 78-1. Report prepared for the California Department of Fish and Game.
- Skinner, M.W. and B.M. Pavlik, 1994. *Inventory of Rare and Endangered Vascular Plants of California*. California Native Plant Society, Spec. Pub. No. 1 (5th edition), Berkeley, California.
- Stebbins, R.C., 1985. *A Field Guide to Western Reptiles and Amphibians*, Houghton Mifflin Company, Boston.
- U.S. Department of Agriculture, Natural Resources Conservation Service, *Web Soil Survey*. (<http://websoilsurvey.nrcs.usda.gov/app/>)
- U.S. Fish and Wildlife Service, 1996. *Review of plant and animal taxa for listing as endangered or threatened species; notice of review*. Federal Register Vol. 61, No. 40.

Appendix A Site Photographs



Photograph 1: Facing west toward Waterman Avenue at the recently disked area on the northwest corner of the project site.



Photograph 2: Facing east, looking at the entrance to the occupied truck repair facility.



Photograph 3: Facing west, looking at the ruderal plant community in the central portion of the project site.



Photograph 4: Facing north across the disturbed area in the southeastern portion of the project site, south of the single family home. This field is mowed dominated by non-native grasses. Debris piles, along with a semi-truck trailer are scattered throughout.



Photograph 5: Facing north from an abandoned Union Pacific railroad bridge spanning East Twin Creek. The project would propose to outlet a storm drain into this creek on the northern bank of the channel wall.



Photograph 6: Facing west. Looking at the disturbed field in the southwestern portion of the project site.



Photograph 7: Facing west into the abandoned Presco Building Materials lot.



Photograph 8: Looking at the single family home on the eastern boundary of the project site.

**Appendix B Sensitive Habitats and Potentially
Occurring Sensitive Plant and
Wildlife Species**

Suitable Habitats and Potentially Occurring Sensitive Plant and Wildlife Species

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
WILDLIFE SPECIES				
<i>Aspidoscelis hyperythra</i> orangethroat whiptail	Fed: None CA: CSC	Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	No	Presumed absent. There is no suitable habitat.
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	Fed: None CA: CSC	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	No	Presumed absent. There is no suitable habitat.
<i>Athene cunicularia</i> burrowing owl	Fed: None CA: None	Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon fossorial mammals for burrows, most notable ground squirrels.	No	Low. There is marginal habitat.
<i>Buteo swainsoni</i> Swainson's hawk	Fed: None CA: THR	Typical habitat is open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grassland or suitable grain or alfalfa fields or livestock pastures.	No	Presumed absent. There is no suitable habitat.
<i>Carolella busckana</i> Busck's gallmoth	Fed: None CA: None	Occurs in coastal dunes and coastal scrub habitat.	No	Presumed absent. There is no suitable habitat.
<i>Catostomus santaanae</i> Santa Ana sucker	Fed: THR CA: CSC	Occur in the watersheds draining the San Gabriel and San Bernardino Mountains of southern California. Streams that Santa Ana Sucker inhabit are generally perennial streams with water ranging in depth from a few inches to several feet and with currents ranging from slight to swift.	No	Presumed absent. There is no suitable habitat.
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	Fed: None CA: CSC	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 1,400 meters above msl. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	No	Presumed absent. There is no suitable habitat.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	Fed: PT CA: END	Obligate riparian species with a primary habitat association of willow-cottonwood riparian forest.	No	Presumed absent. There is no suitable habitat.
<i>Crotalus ruber</i> red-diamond rattlesnake	Fed: None CA: CSC	It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet), to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, cactus or boulder associated coastal sage scrub, oak and pine woodlands, and desert slope scrub associations are known to carry populations of the northern red-diamond rattlesnake; however, chamise and red shank associations may offer better structural habitat for refuges and food resources for this species than other habitats.	No	Presumed absent. There is no suitable habitat.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Dipodomys merriami parvus</i> San Bernardino kangaroo rat	Fed: END CA: CSC	Primarily found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May occur at lower densities in Riversidean upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to Riversidean alluvial fan sage scrub habitats. Tend to avoid rocky substrates and prefer sandy loam substrates for digging of shallow burrows.	No	Presumed absent. There is no suitable habitat.
<i>Dipodomys stephensi</i> Stephens' kangaroo rat	Fed: END CA: THR	Occur in arid and semi-arid habitats with some grass or brush. Prefer open habitats with less than 50% protective cover. Require soft, well-drained substrate for building burrows and are typically found in areas with sandy soil.	No	Presumed absent. There is no suitable habitat.
<i>Eumops perotis californicus</i> western mastiff bat	Fed: None CA: CSC	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	Low. There is marginal habitat.
<i>Gila orcuttii</i> arroyo chub	Fed: None CA: CSC (THR in native Range)	Warm streams of the Los Angeles Plain, which are typically muddy torrents during the winter, and clear quiet brooks in the summer, possibly drying up in places. They are found both in slow-moving and fast-moving sections, but generally deeper than 40 cm.	No	Presumed absent. There is no suitable habitat.
<i>Lasiurus xanthinus</i> western yellow bat	Fed: None CA: CSC	Roosts in trees, especially palms, in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. This species forages over water and between trees.	No	Low. There is marginal roosting and foraging habitat.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	Fed: None CA: CSC	Occurs in diverse habitats, but primarily is found in arid regions supporting shortgrass habitats. Openness of open scrub habitat is preferred over dense chaparral.	No	Presumed absent. There is no suitable habitat.
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	Fed: None CA: CSC	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis.	No	Presumed absent. There is no suitable habitat.
<i>Onychomys torridus ramona</i> southern grasshopper mouse	Fed: None CA: CSC	Inhabits prairies and the southwestern desert.	No	Presumed absent. There is no suitable habitat.
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	Fed: None CA: CSC	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	No	Presumed absent. There is no suitable habitat.
<i>Phrynosoma blainvillii</i> coast horned lizard	Fed: None CA: CSC	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (i.e. fire, floods, roads, grazing, fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	Presumed absent. There is no suitable habitat.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Polioptila californica californica</i> coastal California gnatcatcher	Fed: THR CA: CSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush (<i>Artemisia californica</i>). This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. Ranges from the 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. Prefers habitat with more low-growing vegetation.	No	Presumed absent. There is no suitable habitat.
<i>Rhaphiomidas terminatus abdominalis</i> Delhi Sands flower-loving fly	Fed: END CA: CSC	DSF habitat is limited to areas that include Delhi fine sand, an aeolian (wind-deposited) soil type. The highest density of DSF have been found in habitat that includes a variety of plants including California buckwheat, California croton, deerweed, and telegraph weed.	No	Presumed absent. There is no suitable habitat.
<i>Taxidea taxus</i> American badger	Fed: None CA: CSC	Primarily occupy grasslands, parklands, farms, tallgrass and shortgrass prairies, meadows, shrub-steppe communities and other treeless areas with sandy loam soils where it can dig more easily for its prey. Occasionally found in open chaparral (with less than 50% plant cover) and riparian zones.	No	Presumed absent. There is no suitable habitat.
<i>Vireo bellii pusillus</i> least Bell's vireo	Fed: END CA: END	Primarily occupy Riverine riparian habitat that typically feature dense cover within 1 -2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	No	Presumed absent. There is no suitable habitat.
PLANT SPECIES				
<i>Arenaria paludicola</i> marsh sandwort	Fed: END CA: END CNPS: 1B.1	Occurs in freshwater marshes and swamps. From 33 to 558 feet in elevation.	No	Presumed absent. There is no suitable habitat and the project site is outside of the known elevation range of this species.
<i>Astragalus hornii var. hornii</i> Horn's milk-vetch	Fed: None CA: None CNPS: 1B.1	Occurs in meadows, seeps, and playas. From 197 to 2,789 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Carex comosa</i> bristly sedge	Fed: None CA: None CNPS: 2B.1	Found in marshes and swamps. From 0 to 2,051 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Centromadia pungens ssp. laevis</i> smooth tarplant	Fed: None CA: None CNPS: 1B.1	Occurs in alkali meadow, alkali scrub, and disturbed areas within valley and foothill grassland, chenopod scrub, meadows, playas, and riparian woodland. From 3 to 2,100 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Chloropyron maritimum ssp. maritimum</i> salt marsh bird's-beak	Fed: END CA: END CNPS: 1B.2	Upper terraces and higher edges of coastal salt marshes where tidal inundation is periodic. From 0 to 98 feet in elevation.	No	Presumed absent. There is no suitable habitat and the project site is outside of the known elevation range of this species.

Appendix B Sensitive Habitats and Potentially Occurring Sensitive Plant and Wildlife Species

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	Fed: None CA: None CNPS: 1B.1	Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. From 131 to 5,594 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i> Peruvian dodder	Fed: None CA: None CNPS: 2B.2	Occurs in freshwater marsh and swamps. From 49 to 919 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Dodecahema leptoceras</i> slender-horned spineflower	Fed: END CA: END CNPS: 1B.1	Chaparral, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes. From 656 to 2,493 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> Santa Ana River woollystar	Fed: END CA: END CNPS: 1B.1	Coastal scrub, chaparral in sandy soils on river floodplains or terraces fluvial deposits. From 295 to 2,001 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Galium californicum</i> ssp. <i>primum</i> Alvin Meadow bedstraw	Fed: None CA: None CNPS: 1B.2	Chaparral, lower montane coniferous forest between 4,429 and 5,577 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i> Los Angeles sunflower	Fed: None CA: None CNPS: 1A	Occurs in marshes, swamps, and on damp river banks. From 33 to 5,495 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	Fed: None CA: None CNPS: 1B.1	Occurs on sandy or gravelly soils in chaparral, woodlands, and coastal scrub plant communities. Most often on alluvial fans. From 230 to 2,657 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	Fed: None CA: None CNPS: 1B.2	Dry soils on chaparral and coastal sage scrub from 3 to 2,904 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Lycium parishii</i> Parish's desert-thorn	Fed: None CA: None CNPS: 2B.3	Coastal scrub and Sonoran desert scrub habitat. From 984 to 3,281 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Monardella pringlei</i> Pringle's monardella	Fed: None CA: None CNPS: 1A	Sandy hills covered in coastal sage scrub from 984 to 1,312 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Nasturtium gambelii</i> Gambel's water cress	Fed: END CA: THR CNPS: 1B.1	Brackish marsh, freshwater marsh, swamps, and wetlands. From 16 to 1,083 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Ribes divaricatum</i> var. <i>parishii</i> Parish's gooseberry	Fed: None CA: None CNPS: 1A	Occurs in riparian woodland, usually in willow swales. From 213 to 328 feet in elevation.	No	Presumed absent. There is no suitable habitat and the project site is outside of the known elevation range of this species.
<i>Sidalcea neomexicana</i> Salt Spring checkerbloom	Fed: None CA: None CNPS: 2B.2	Occurs in alkali springs and marshes within alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest, and Mojavean desert scrub. From 49 to 5,020 feet in elevation.	No	Presumed absent. There is no suitable habitat.
<i>Sphenopholis obtusata</i> prairie wedge grass	Fed: None CA: None CNPS: 2B.2	Brackish or salt marshes and flats, in lakes or ponds, in rivers or streams, man-made or disturbed habitats, marshes, ridges or ledges, shores or rivers or lakes, woodlands. From 984 to 6,562 feet in elevation.	No	Presumed absent. There is no suitable habitat.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Symphotrichum defoliatum</i> San Bernardino aster	Fed: None CA: None CNPS: 1B.2	Grows in grasslands and disturbed areas in the San Gabriel and San Bernardino Mountains and Peninsular Range. Occurs in vernal wet sites including ditches, streams, and springs in many plant communities including meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous woodland, and grassland. From 7 to 6,693 feet in elevation.	No	Presumed absent. There is no suitable habitat.
CDFW SENSITIVE HABITATS				
Riversidean Alluvial Fan Sage Scrub	CDFW Sensitive Habitat	Considered a distinct and rare plant community found primarily on alluvial fans and flood plains along the southern bases of the Transverse Ranges and portions of the Peninsular Ranges in southern California. Relatively open vegetation type is adapted to periodic flooding and erosion and is comprised of an assortment of drought-deciduous shrubs and larger evergreen woody shrubs characteristic of both coastal sage scrub and chaparral communities.	No	Absent
Southern Cottonwood Willow Riparian Forest	CDFW Sensitive Habitat	Dominated by cottonwood (<i>Populus</i> spp.) and willow (<i>Salix</i> spp.) trees and shrubs. Considered to be an early successional stage as both species are known to germinate almost exclusively on recently deposited or exposed alluvial soils.	No	Absent
Southern Riparian Scrub	CDFW Sensitive Habitat	Riparian zones dominated by small trees or shrubs, lacking taller riparian trees.	No	Absent

U.S. Fish and Wildlife Service (USFWS) -
Federal
END- Federal Endangered
THR- Federal Threatened
PT- Proposed Threatened

California Department of Fish and Wildlife
(CDFW) - California
END- California Endangered
THR- California Threatened
CSC- California Species of Concern
WL- Watch List

California Native Plant Society (CNPS)
California Rare Plant Rank
1A Plants Presumed Extirpated in California and
Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in
California and Elsewhere
2B Plants Rare, Threatened, or Endangered in
California, but More Common Elsewhere
4 Plants of Limited Distribution – A Watch List

Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California