

CONSISTENCY DETERMINATION

BEDFORD MARKETPLACE PROJECT



Submitted Pursuant to MSHCP
Section 6.1.2 *Protection of Species Associated with*
Riparian/Riverine Areas and Vernal Pools;
Section 6.3.2 *Species Survey Requirements*

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Executive Summary

Bedford Marketplace, LLC proposes to amend the Arantine Hills Specific Plan (AHSP Amendment No. 3) to increase the boundary of the AHSP by approximately 18 acres (Project Site). The proposal would also increase the area designed Commercial in the AHSP to approximately 22 acres and increase the amount of commercial use from 80,000 square feet to approximately 134,378 square feet plus a 135-room hotel. The Project site, currently owned by the Riverside County Transportation Commission (RCTC), would increase the size of the planned commercial center within the Arantine Hills Specific Plan.

Project implementation includes two alternatives for construction and the importing of dirt for grading operations.

Import Alternative 1: The first option to import dirt onsite is by truck from an off-site source. A potential source of import (Borrow Site) has been identified from the FST Sand and Gravel Mine, located east of I-15 and approximately ½ mile east of El Cerrito Road. The dirt would be hauled from the Borrow Site to the Project site.

Import Alternative 2: The second option to import dirt to onsite involves importing dirt from Planning Area 14 (PA 14) within the Arantine Hills Specific Plan (AHSP). PA 14, approximately 26 acres, is located south of Bedford Canyon Wash and forms an elevated plateau above Bedford Canyon Wash.

To import dirt from PA 14, an access ramp would be graded in the northeast portion of PA 14 leading down to the existing concrete crossing of Bedford Canyon Wash. Grading the access ramp would require creating a notch in the existing bluff with side slopes. The lower portion of the access ramp would be steeper and reinforced with geo-grid or similar stabilizer. Fill, ranging from 5 feet to 10 feet would be temporarily placed on top of the existing concrete pad crossing Bedford Canyon Wash to both protect the concrete pad and function as a ramp to gain elevation.

Careful grading operations and BMPs would avoid dirt spoils in Bedford Wash. While this import operation would need to take place during the dry season, temporary pipe culverts would be placed on top of the concrete pad under the dirt ramp in case unexpected monsoonal storms caused Bedford Canyon Wash to flow.

Following completion of the import, the temporary dirt bridge and culverts would be removed from the concrete pad crossing Bedford Canyon Wash and the notch in the bluff for the access ramp would be reconstructed at 2:1 slopes and surface terrace drains

would be added to control storm runoff to minimize erosion. The graded slopes would be replanted with a native coastal sage scrub mix.

The Project site is located in the Bedford Canyon area of the Santa Ana Mountain foothills in the southeastern portion of the City of Corona. The Project is located within the Temescal Canyon Area Plan of the Riverside County Multiple Species Habitat Conservation Plan (MSHCP); however, the Project site is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits. Portions of the Project site are located within overlay areas, as follows:

- Riparian and Riverine Areas (Section 6.1.2)
- Narrow Endemic Plants – Survey Area Number 7 (Section 6.1.3)
- Western burrowing owl (*Athene cunicularia hypugaea*) (Section 6.3.2)

Thus, this consistency determination has been prepared pursuant to those sections.

The majority of the Project site (approximately 98 percent) consists of ruderal vegetation and disturbed/developed land. The remainder of the Project site (approximately 2 percent) consisting of Riversidian sage scrub and widened and restored Bedford Canyon Wash.

The Project site is not located within or adjacent to any MSHCP Conservation Area. The area does not support the Section 6.1.2 special status species. Thus, no mitigation is proposed for the Section 6.1.2 special status species.

The site was evaluated for Narrow Endemic Plants and suitable for the species identified within Survey Area Number 7 pursuant to Section 6.1.3. No species identified within Survey Area Number 7 were observed during the field survey. Furthermore, the Project site lacks suitable habitat and suitable soils and habitat. Therefore, no mitigation is necessary.

The site was evaluated for suitable burrowing owl habitat pursuant to Section 6.3.2, Species Survey Requirements. Following a habitat assessment and three (3) additional focused burrowing owl surveys, no burrowing owls or diagnostic signs of burrowing owls were observed. However, the site was deemed to have potential habitat for the burrowing owl, therefore pre-construction surveys will be conducted by a qualified biologist 30 days prior to the commencement of any ground disturbing activities. With implementation of the pre-construction surveys, the Project would be consistent with the MSHCP requirements as outlined within Section 6.3.2.

Section 1. Introduction

The following Consistency Determination has been prepared by Carlson Strategic Land Solutions (SLS), on behalf of Bedford Marketplace, LLC (Applicant) pursuant to Section 6.1.2 *Protection of Species Associated with Riparian/Riverine areas and Vernal Pools*, Section 6.3.1 *Narrow Endemic Plants*, and Section 6.3.2 *Species Survey Requirements* of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The purpose of the Consistency Determination is to determine if implementation of the Project is consistent with the requirements of the MSHCP.

The Applicant proposes to amend the Arantine Hills Specific Plan (AHSP Amendment No. 3) to increase the boundary of the AHSP by approximately 18 acres (Project Site). The proposal would also increase the area designed Commercial in the AHSP to approximately 22 acres and increase the amount of commercial use from 80,000 square feet to approximately 134,378 square feet plus a 135-room hotel. The Project site assessor parcel number's (APN) are 308-040-053 and 308-040-054.

1.1 Project Terms

The following terms will be used throughout this document and are defined as follows:

- Project site: the approximately 18-acre Bedford Marketplace Project site.
- Study Area: the area evaluated during the field survey, including the approximately 18-acre Project site and the surrounding 500-foot area.
- Project Vicinity: intended to be a general term to describe the broader area surrounding the Study Area.

1.2 Definition of Project Area

The proposed Project site encompasses approximately 18 acres and is located in the Bedford Canyon area of the Santa Ana Mountain foothills in the southeastern portion of the City of Corona. The City of Corona is generally situated southwest of the City of Riverside, south of the City of Norco, and north of the City of Lake Elsinore in Riverside County, California (Figure 1). The Project site is found within Section 20 of Township 4 South, Range 6 West, of the Corona South USGS 7.5" Quadrangle Map. Areas surrounding the Project Site include the Arantine Hills Specific Plan to the south and west; I-15/Cajalco Interchange construction to the north; and the I-15 to the east. The Study Area, consisting of the approximately 18-acre Project site and surrounding 500-foot buffer, and includes

elevations that range from 1,100 to 1,200 feet above mean sea level (MSL) (Figure 2). The buffer area was evaluated as a precautionary measure for potential off-site impacts.

The Project site is located within the Temescal Canyon Area Plan of the MSHCP. The Project is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits. Portions of the Survey Area is located within MSHCP Section 6.1.2 Riparian and Riverine Areas, Section 6.1.3 Narrow Endemic Plant Species Survey Area (NEPSSA) Number 7, and Section 6.3.2 Species Survey Requirements for the western burrowing owl (*Athene cunicularia hypugaea* [BUOW]) habitat (Figure 3). The Project is not located within MSHCP survey areas for Criteria Area Plant Species, Amphibians, Mammals, or Special Linkage Areas.

Bedford Canyon Wash, located to the south of the Project Site, is an ephemeral wash with a sandy bottom and sparsely vegetated alluvial fan sage scrub and non-native vegetation. The Wash receives flows from the Santa Ana mountains, through the Eagle Glen Golf Club, through the AHSP area, continuing downstream to Temescal Creek and ultimately the Santa Ana River. As part of implementation of the AHSP, Bedford Wash has been widened and improved with buried rip-rap along the banks and buried grade control structures to control erosion and scour. Two concrete crossings (upstream and downstream) provide access to the south side of the Wash and the associated maintenance access road. Restoration of Bedford Wash will include planting with an alluvial fan sage scrub seed mix.

Section 2. Project Background

Upstream of the Project site is the Arantine Hills Specific Plan Project (Arantine Hills Project). Arantine Hills Project was approved by the City of Corona in 2012 and received Resource Agency approval in 2016 to widen and restore Bedford Canyon Wash creating 23.87 acres of alluvial fan sage scrub habitat permanently protected in a Conservation Easement. As part of implementation of the AHSP, Bedford Wash has been widened and improved with buried rip-rap along the banks and buried grade control structures to control erosion and scour. Two concrete crossings (upstream and downstream) provide access to the south side of the Wash and the associated maintenance access road.

The approved regulatory permits for the Arantine Hills Project include the following:

CDFW Streambed Alteration Agreement

- Final Streambed Alteration Agreement Notification No. 1600-2015-0055-R6 Arantine Hills Development Project - Issued July 25, 2016
- Amendment Letter 1 Notification No. 1600-2015-0055-R6 - Issued April 1, 2017
- Amendment 2 Notification No. 1600-2015-0055-R6 - Issued December 21, 2017

Corps Section 404 Nationwide Permit

- Corps File No. SPL-2015-00361-ERS – Originally issued September 20, 2016, a Reverification letter was issued November 29, 2017

RWQCB Section 401 Water Quality Certificate

- SARWQCB Project NO. 332014-24 – Issued July 7, 2016

US Fish and Wildlife Service Streamline Section 7

- FWS-WRIV-15B0271-16F0852 - Issued August 12, 2016

DBESP and MSHCP Consistency Determination

- FWS/CDFW-15BO0271-15CPA0281 – Approval via email June 23, 2016 and incorporated into the Streamline Section 7.

Section 3. Project Description

The intent of the Project is to incorporate the approximate 18 acres into the existing Arantine Hills Specific Plan (AHSP) and build a new commercial center. The Project site, currently owned by the Riverside County Transportation Commission (RCTC), would increase the size of the planned commercial center within the Arantine Hills Specific Plan, and is referred to as Bedford Marketplace Project (Project).

The Applicant proposes to amend the Arantine Hills Specific Plan (AHSP Amendment No. 3) to increase the boundary of the AHSP by approximately 18 acres (Project Site). The proposal would also increase the area designated Commercial in the AHSP to approximately 22 acres and increase the amount of commercial use from 80,000 square feet to approximately 134,378 square feet plus a 135-room hotel.

Project implementation includes two alternatives for construction and the importing of dirt for grading operations.

Import Alternative 1: The first option to import dirt onsite is by truck from an off-site source. A potential source of import (Borrow Site) has been identified from the FST Sand and Gravel Mine, located east of I-15 and approximately ½ mile east of El Cerrito Road. The dirt would be hauled from the Borrow Site to the Project site.

Import Alternative 2: The second option to import dirt to onsite involves importing dirt from Planning Area 14 (PA 14) within the Arantine Hills Specific Plan (AHSP). PA 14, approximately 26 acres, is located south of Bedford Canyon Wash and forms an elevated plateau above Bedford Canyon Wash.

To import dirt from PA 14, an access ramp would be graded in the northeast portion of PA 14 leading down to the existing concrete crossing of Bedford Canyon Wash. Grading the access ramp would require creating a notch in the existing bluff with side slopes. The lower portion of the access ramp would be steeper and reinforced with geo-grid or similar stabilizer. Fill, ranging from 5 feet to 10 feet would be temporarily placed on top of the existing concrete pad crossing Bedford Canyon Wash to both protect the concrete pad and function as a ramp to gain elevation.

Careful grading operations and BMPs would avoid dirt spoils in Bedford Wash. While this import operation would need to take place during the dry season, temporary pipe culverts would be placed on top of the concrete pad under the dirt ramp in case unexpected monsoonal storms caused Bedford Canyon Wash to flow.

Following completion of the import, the temporary dirt bridge and culverts would be removed from the concrete pad crossing Bedford Canyon Wash and the notch in the bluff for the access ramp would be reconstructed at 2:1 slopes and surface terrace drains would be added to control storm runoff to minimize erosion. The graded slopes would be replanted with a native coastal sage scrub mix.

Access to the Project site is from the residential project referred to as Bedford, located to the west of the Project site, off Eagle Glen Parkway via Hudson House Drive. Directions to the Project site from Interstate 15 (I-15) is to exit Cajalco Road and head west onto Eagle Glen Parkway. Access is obtained via Hudson House Drive.

Section 4. Methodology

The Study Area is located within the planning area for the Western Riverside County MSHCP (Temescal Canyon Area Plan), but is not located within any Criteria Cells, Cell Groups, or Subunits. Portions of the Study Area is located within the Narrow Endemic Plants Survey Area Number 7 and survey area for the burrowing owl (*Athene cunicularia* [BUOW]) (Figure 3).

Biologist and Regulatory Specialist from SLS conducted site-specific surveys at the Study Area from June through August 2019. SLS conducted biological surveys in three main components in order to identify and evaluate actual or potential impacts to biological resources associated with the proposed Project, including: (1) vegetation mapping; (2) site-specific biological surveys to evaluate the presence/absence of special-status species (or potentially suitable habitat) to the satisfaction of the MSHCP, CEQA, and Federal and State regulations; and (3) delineation of aquatic resources (including wetlands/riparian habitat) subject to the jurisdiction of the Corps, RWQCB, and CDFW. The jurisdictional delineation was conducted to determine the limits of Corps jurisdiction pursuant to Section 404 of the CWA, and CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the California Fish and Game Code.

The field studies focused on a number of primary objectives that would satisfy the special provisions of the MSHCP and also comply with CEQA requirements, including: (1) general reconnaissance surveys and vegetation mapping; (2) general wildlife surveys; (3) habitat assessments and surveys for special-status plants; (4) habitat assessments and focused biological surveys for special-status animals (including species designated by MSHCP survey areas); (5) wildlife movement analysis; (6) assessments of riparian/riverine areas and vernal pool habitats; and (7) delineation of areas subject to the jurisdiction of the Corps, RWQCB, and CDFW. Observations of plant and wildlife species were recorded during each of the above-mentioned survey efforts. The attached Biological Report provides results of the surveys and personnel (Appendix A).

The Biological Technical Report for Bedford Marketplace Project dated October 2019 (Biological Report) evaluates individual plants and animal species based on their special-status. For the purpose of the Biological Report, plants were considered special-status based on one or more of the following criteria:

- Listing through the Federal and/or State Endangered Species Act (ESA);
- Taxa designated a species of special concern by CDFW.
- Taxa designated a state fully protected species by CDFW.
- Taxa identified as sensitive, unique or rare, by the USFWS, CDFW, the United States Forest Service (USFS), the United States Bureau of Land Management (BLM), and/or the California Department of Forestry and Fire Protection (CDF).

- Plants that meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
 - Species considered by CNPS and CDFW to be “rare, threatened or endangered in California” (California Rare Plant Rank [CRPR] 1A, 1B and 2) (CNPS 2019). A majority of the CRPR 3 and CRPR 4 plant species generally do not qualify for protection under CESA and NPPA.
 - Species that may warrant consideration on the basis of local significance or recent biological information.
 - Some species included on the CNDDDB Special Plants, Bryophytes, and Lichens List (CDFW 2019g).
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.
- Evaluation and coverage under the MSHCP.

Prior to conducting fieldwork, pertinent literature on the flora of the region was examined. A thorough archival review was conducted using available literature and other historical records. These resources included, but were not limited to, the following: CNPS Inventory of Rare and Endangered Plants of California [CNPS 2019]; CNDDDB for the Corona South, and surrounding USGS quadrangle maps (CNDDDB 2019); and MSHCP Document, including *Section 6.1.2*, *Section 6.1.3*, *Section 6.3*, and Table 9.3 (Riverside County Integrated Project 2003).

Vegetation communities were mapped based on the Holland Classification System (Holland 1986). Where necessary, deviations were made on best professional judgment when areas did not fit into a specific habitat description provided by Holland. Plant communities were mapped in the field directly onto a 200-scale (1" = 200') aerial photograph and a Trimble R1 GNSS Receiver paired with the ARCGIS Collector Application was utilized during the survey. Figure 4 (Vegetation Map) provides vegetation mapping for the Project site.

4.1 Section 6.1.2 Riparian/Riverine Areas and Vernal Pools

Volume I, Section 6.1.2 of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSHCP Plan Area. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Conservation Area are maintained. The MSHCP requires that as projects are

proposed within the overall Plan Area, the effect of those projects on riparian/riverine areas and vernal pools must be addressed. The Study Area was evaluated for the presence/absence of MSHCP riparian/riverine areas and vernal pools. With respect to riparian habitat, the Study Area was evaluated for the potential habitat to support the special status species including the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii traillii*), the western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), listed fairy shrimp, and other species identified in Section 6.1.2 of the MSHCP.

The Project site was evaluated to determine the limits of (1) Corps jurisdiction pursuant to Section 404 of the CWA; (2) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code; and (3) MSHCP riparian/riverine areas and vernal pools. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Suspected wetland habitat on the site were evaluated using the methodology set forth in the Corps' 1987 Wetland Delineation Manual (Wetland Manual) and the 2008 Regional Supplement to the Corps Wetland Delineation Manual: Arid West Region Version 2.0 (Arid West Supplement). While in the field, the limits of Corps and CDFW jurisdiction were recorded onto a 200-scale (1" = 200') color aerial photograph and a Trimble R1 GNSS Receiver paired with the ARCGIS Collector Application, with accuracy to +/- one foot. Enclosed is a delineation graphic (Figure 5), which depicts the areas of Corps and CDFW jurisdiction identified within the Study Area.

4.2 Section 6.1.3 Narrow Endemic Plants

The CNDDDB and MSHCP were initially consulted to determine known occurrences of special-status plants in the region. Based on this information, a list of target plants (including their suitable habitats and soil) was developed and incorporated into a survey program to achieve the following goals: (1) characterize the vegetation associations and land use; (2) prepare a detailed floral compendium; and (3) document the distribution and abundance of any special-status plant species within the Project Study Area.

General surveys were conducted to identify potential sensitive plant habitats, and to establish the accuracy of the data identified from the literature review. An aerial photograph and topographic map were used to determine the community types and other physical features that may support sensitive species or communities within the Project Study Area. The reconnaissance surveys also considered the guidelines adopted by CNPS and CDFW (Nelson 1984, CNPS 2001).

Where potentially suitable habitat was present, focused plant surveys included those MSCHP Covered Species identified by the NEPSSA Survey Area Number 7. For locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species are met. Findings of equivalency shall be made demonstrating that the 90-percent standard has been met.

All plant species encountered during the field surveys were identified and recorded following the guidelines adopted by CNPS (2001) and CDFW by Nelson (1984). A complete list of the species observed is provided in Appendix D of the Biological Technical Report for Bedford Marketplace Project dated October 2019.

4.3 Section 6.3.1 Special Survey Requirements

The CNDDDB and MSHCP were initially consulted to determine known occurrences of special-status animals in the region. Based on this information, a list of target animal species (including their suitable habitats) was developed and incorporated into a survey program to achieve the following goals: (1) prepare a detailed faunal compendium; and (2) implement general reconnaissance field work and focused surveys to document the distribution and quantity of any special-status animal species within the Study Area.

The Project site and surrounding 500-feet was evaluated for suitable burrowing owl habitat, and where present, focused surveys were conducted for the BUOW to satisfy the requirements of the MSHCP.

4.3.1 General Biological Surveys

Wildlife species were evaluated and detected during field surveys by sight, call, tracks, and scat. Site surveys were conducted in such a manner as to allow inspection by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during each visit. A complete list of wildlife species observed within the Project site is provided in the Biological Report. Scientific nomenclature and common names for vertebrate species referred to in this report follow the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California, Standard Common and Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians 6th Edition, Collins and Taggart (2009) for amphibians and reptiles, and the AOU Checklist (2018) for birds. The methodology (including any applicable survey protocols) utilized to conduct the focused surveys or the habitat assessments for special-status animals is included below.

Reptiles and Amphibians

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

Birds

During general surveys, birds were identified incidentally during surveys within each habitat type. Birds were detected by both direct observation and by vocalizations and were recorded in field notes. The majority of the Project site consists of lowlands containing ruderal (former agricultural) areas and other disturbed areas that provide suitable foraging habitat for raptors, including a few special-status species. These areas serve as potential foraging habitat for a variety of raptor species. During general and focused biological surveys, raptor use within the Study Area was documented to identify species using the property for foraging habitat, as well as to identify any locations of nesting raptors.

Mammals

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

Botanical Resources

During general surveys, botanical resources were identified during survey within each habitat type. Botanical resource surveys consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur on site; (3) general field reconnaissance survey; (4) vegetation mapping based on the Holland Classification System; and (5) preparation of a vegetation map, including the location of any sensitive vegetation communities found on site.

4.3.2 Burrowing Owl Surveys

The entire Project site is located within the MSHCP Survey Area for the burrowing owl (*Athene cunicularia* [BUOW]). The BUOW is designated as a State Species of Special Concern. The BUOW occurs in short grass prairies, grasslands, lowland scrub, former agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident (Haug, et al.1993). They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an

abundance of active small mammal burrows (e.g., ground squirrels, rabbits, etc.). They require the use of rodent or other burrows for roosting and nesting cover. They may also dig their own burrow in soft, crumbly soil and may also use pipes, culverts, and nest boxes where burrows are scarce. In the case of nesting owls, one burrow is typically selected for use as the nest; however, satellite burrows are usually found within the immediate vicinity of the nest burrow, within the defended territory of the owl.

Pursuant to the MSHCP, if a site occurs within the BUOW survey area, and suitable habitat is present, then focused burrow and BUOW surveys are to be conducted following the 2012 MSHCP Burrowing Owl Survey Instructions. The Project site was evaluated for suitable BUOW habitat.

Focused Survey Requirements

The Burrowing Owl Survey Instructions are divided into two steps, including the habitat assessment (Step 1) and locating burrows and BUOWs (Step II). Step I of the MSHCP Survey Instructions requires that an assessment be conducted to determine the presence of suitable habitat for the BUOW. A Habitat Assessment was conducted on June 27, 2019 to determine any suitable BUOW habitat on the Project site and surrounding 500-foot buffer. The MSHCP Survey Instructions acknowledge that the presence of suitable burrows is not the deciding factor on whether a site contains suitable habitat for BUOWs. The presence/absence of suitable burrows is to be determined during Step II of the Survey Instructions (Part A: Focused Burrow Survey, and Part B: Additional Focused Burrowing Owl Surveys), once it has been determined that a site contains suitable habitat for the BUOW. The Study Area contains former agricultural lands, ruderal vegetation areas, and unvegetated disturbed areas, many of which exhibit some basic suitability for BUOWs. As such, a focused burrow survey (Step II Part A) was required for the Project.

Following the assessment, a three additional focused BUOW surveys were conducted on July 8, 25, and August 1, 2019 between 7:15 a.m. and 11:50 a.m. pursuant to MSHCP Section 6.3.2, MSHCP Protocol Survey Instructions, and the methods used to detect and identify BUOW included observation of key signs identified by the California Burrowing Owl Consortium (CBOC).

The 2019 focused BUOW surveys were conducted within suitable habitat of the Project site and surrounding 500-foot buffer. The surveys were conducted by walking pedestrian transects within areas of suitable habitat in order to map suitable burrows. The transects were spaced 10 to 15 meters apart, in order to

effectively cover 100 percent of the ground surface. If suitable burrows were encountered, the burrows were mapped using a Trimble R1 GNSS Receiver paired with the ARC Geographical Information System (ARCGIS) Collector Application. Any encountered burrows were inspected for the presence of diagnostic owl sign, including “whitewash” (owl excrement), regurgitated pellets, bones, feathers, etc.

4.3.3 Wildlife Movement Analysis

In order to evaluate direct, indirect, and cumulative impacts of the proposed Project on wildlife movement, an analysis of wildlife use/movement was conducted for the Project site and adjacent buffer area. The analysis considered the movement and use of large mammals (i.e., mountain lion and mule deer), medium-sized mammals (mesocarnivores), and other wildlife such as small mammals, birds, reptiles, and amphibians. Methods utilized for the wildlife analysis included a review of existing information on wildlife use (including the MSHCP), general and focused biological surveys to document the presence/absence of wildlife, and opportunistic observations of mammal tracks and scat. The analysis considered the Project site, but with particular focus on Bedford Canyon Wash.

A portion of the Project site contains the Bedford Canyon Wash, which within the MSHCP has not been identified as an important regional wildlife corridor connecting the Santa Ana Mountains to other MSHCP Core Areas. Bedford Canyon Wash continues through the Project site, where it has been widened and restored. Further downstream (under Interstate 15), a portion of Bedford Canyon Wash has been lined with concrete bed, bank, and channel, before it connects to Temescal Creek. The portion of Bedford Canyon Wash that has been lined with concrete bed, bank, and channel, provides limited wildlife movement to Temescal Creek. The Project site would preserve the widened and restored Bedford Canyon Wash, consistent with the restoration occurring through the Arantine Hills project site, which would maintain existing wildlife movement opportunities through the Project site.

Section 5. Existing Conditions

5.1 Existing Conditions and Land Use

The Project site, currently owned by RCTC, would increase the size of the planned commercial center within the Arantine Hills Specific Plan. The Project site has historically been farmed for citrus production between 1962 and 2007. Prior to the 1962 aerial photograph, the Project Site was vacant land. The former agricultural operation has reverted to ruderal vegetation, which is managed on an annual basis for fuel modification (fire prevention). In addition, Bedford Wash has been widened and improved with buried rip-rap along the banks and buried grade control structures to control erosion and scour. Two concrete crossings (upstream and downstream) provide access to the south side of the Wash and the associated maintenance access road. Restoration of Bedford Wash includes planting with an alluvial fan sage scrub seed mix.

The majority of the Project site (approximately 98 percent) consists of ruderal vegetation and disturbed/developed land. The remainder of the Project site (approximately 2 percent) consisting of Riversidian sage scrub and widened and restored Bedford Canyon Wash, see Figure 4.

The MSHCP requires habitat assessments within designated Survey Areas and focused surveys within areas of suitable habitat. For locations with positive focused survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species be avoided until it is demonstrated that conservation goals for the particular species are met. Findings of equivalency shall be made demonstrating that the 90-percent standard has been met. If the focus survey findings are negative, then a preconstruction survey is required 30 days prior to ground disturbance.

Surrounding land uses include the Arantine Hills Specific Plan to the south and west; commercial and Cajalco Road to the north; and the I-15 to the east.

5.2 Vegetation Communities

Four vegetation communities were observed within the Project site surrounding 500-foot Buffer. The acreages of vegetation communities and land covers are shown in Table 1 and depicted in Figure 4. As shown on Figure 5, the surrounding 500-foot buffer consists primarily of developed/disturbed vegetation community including; Interstate-15, Eagle Glen Road, graded and disturbed land within the Arantine Hills Project. A small portion of the 500-foot buffer area includes the Widened and Restored Bedford Canyon Wash.

As stated in Section 2 above, since the Regulatory Permits and DBESP/MSHCP Consistency Determination for the Arantine Hills Project previously accounted for the impacts associated with the widened and restored Bedford Canyon Wash improvements located within the Project site.

Table 1. Summary of Vegetation Communities Onsite¹

Vegetation Community	Acreage within in the Project Site (acres)
Riversidian Sage Scrub/Chaparral	0.15
Widened and Restored Bedford Canyon Wash ²	0.20
Ruderal	15.14
Disturbed/Developed	2.28
TOTAL	17.77
<p><i>Notes:</i></p> <p>1. Acreages presented in the table represent those found within the Project Boundary. The surrounding 500-foot buffer consists primarily of developed/disturbed vegetation community including; Interstate-15, Eagle Glen Road, graded and disturbed land within the Arantine Hills Project.</p> <p>2. Included within the Arantine Hills Project, Widened and Restored Wash design. Specifically, the portion of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protections, and concrete Wash crossing.</p>	

Riversidian Sage Scrub/Chaparral

Approximately 0.15 acres of the Project site is comprised of Riversidian Sage Scrub/Chaparral. This vegetation community is located on the slope of the south bluff of Bedford Canyon Wash. The Riversidean Sage Scrub/Chaparral community is dominated by shrubs such as laurel sumac (*Malosma laurina*), white sage (*Salvia apiana*), toyon (*Heteromeles arbutifolia*), Mexican elderberry (*Sambucus mexicana*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), deerweed (*Acmispon glaber*), California buckwheat (*Eriogonum fasciculatum*), chamise (*Adenostoma fasciculatum*), and tree tobacco (*Nicotiana glauca*). The understory of the community consists primarily of non-native species such as red brome (*Bromus madritensis ssp. rubens*), ripgut brome (*Bromus diandrus*), tocalote (*Centaurea melitensis*), and summer mustard (*Hirschfeldia incana*).

Widened and Restored Wash

Approximately 0.20 acres of the Project site is comprised of widened and restored Bedford Canyon Wash (Wash). The original Wash was widened from an approximately 90

feet to 200 feet. Various structures, including buried slope protection, buried grade control structures, and access ramps, are included within the design. The overall restored Wash will be hydroseeded with an alluvial fan sage scrub hydroseed mixture. Specifically, the portion of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protections, and the concrete Wash crossing and grade stabilization.

Ruderal

A total of 15.14 acres of the Project site consists of the ruderal community. This vegetation community occurs in the location of the historical citrus operations. It is generally maintained (trimmed) annually due to fire management. Vegetation within this area is comprised of predominantly of cheeseweed (*Malva parviflora*). Other species include Russian thistle (*Salsola tragus*), summer mustard (*Hirschfeldia incana*), rat-tail fescue (*Festuca microstachys*), foxtail brome (*Bromus madritensis ssp. rubens*), ripgut brome (*Bromus diandrus*), tocalote (*Centaurea melitensis*), Jimson weed (*Datura stramonium*), giant reed (*Arundo donax*), and a few scattered coyote bush (*Baccharis pilularis*), and laurel sumac (*Malosma laurina*).

Developed/Disturbed

A total of 2.28 acres of disturbed area consisting of bare dirt, dirt roads, and sparse vegetation is mapped onsite. The developed/disturbed community contains limited habitat value and includes non-native or invasive species. This community also includes areas of disturbance from both the grading of Arantine Hills and the construction of the Cajalco Interchange.

5.3 MSHCP Riparian/Riverine and Vernal Pool Assessment

Volume I, Section 6.1.2 of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSHCP Plan Area. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSHCP Conservation Area are maintained.

The MSHCP defines riparian/riverine areas as:

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

The MSHCP defines vernal pools as:

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

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

The only MSHCP Riparian and Riverine features located on the Project Site is Bedford Canyon Wash. The total inventory of MSHCP Riparian and Riverine is presented in Table 2 and shown on Figure 5. The Project site contains no vernal pools or depressions as defined under MSHCP vernal pool features.

As part of the implementation of the Arantine Hill Specific Plan, the acreage identified as Riparian/Riverine Habitat includes the widened and restored Bedford Wash. Specifically, the portion of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protection and a concrete Wash crossing that includes grade stabilization.

Table 2. Riparian/Riverine Habitat Onsite

Community Type	Acreage Onsite
Riparian/Riverine	0.20 ¹
<i>1. Widened and Restored Wash.</i>	

Section 6. Results and Impact Analysis

6.1 Vegetation Communities

Proposed impacts to vegetation communities onsite is summarized in Tables 3 and 4 below based on the Alternative for Dirt Import for grading operations. Calculations were based on the currently proposed development design in combination with the vegetation map from the field survey and aerial imagery.

Indirect temporary impacts to plant communities include the effects of fugitive dust created by grading activities, vehicle construction traffic, or offsite discharge of surface water runoff with its associated erosion and sedimentation. Grading-related dust could settle on plant surfaces and indirectly inhibit metabolic processes such as photosynthesis and respiration. Grading-related erosion, runoff, sedimentation, soil compaction, and alteration of drainage patterns may affect plants by altering site conditions so that the location in which they are growing becomes unfavorable. Another example of indirect impacts includes the introduction and spread of invasive, exotic plants which could result in permanent indirect impacts to adjacent native plant communities.

6.1.1 Alternative 1: Off-site Dirt Import

Figure 6 and Table 3 provides the approximate total acreages of vegetation communities that will be permanently and temporary impacted by Project activities should Alternative 1 be implemented.

Table 3. Total Project Impacts with Alternative 1: Off-site Dirt Import - Onsite Vegetation Community Impacts¹

Vegetation Community	Existing Vegetation onsite (acres)	Total Permanent Impacts (acres)	Total Temporary Impacts (acres)	Avoided (acres)
Riversidian Sage Scrub/Chaparral	0.15	0.00	0.00	0.15
Widened and Restored Bedford Canyon Wash ²	0.20	0.01	0.00	0.19
Ruderal	15.14	14.32	0.00	0.82
Disturbed/Developed	2.28	2.00	0.00	0.28
TOTAL	17.77	16.33	0.00	1.44

Notes:

1. Acreages presented in the table represent those found within the Project Boundary. The surrounding 500-foot buffer consists primarily of developed/disturbed vegetation community including; Interstate-15, Eagle Glen Road, graded and disturbed land within the Arantine Hills Project.

2. Included within the Arantine Hills Project, Widened and Restored Wash design. Specifically, the portions of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protection, and concrete Wash crossing.

Impacted Native Habitat

Direct impacts to 16.33 acres on the Project site as a result of Alternative 1 are not considered significant because the habitats are common in the Project Vicinity and have minimal habitat value and are non-native habitats. Furthermore, these impacts do not represent CNDDDB, State, or MSHCP sensitive plant communities. In addition, many of these areas within the Study Area exhibit a moderate or high level of disturbance.

Of the total 16.33 acres impacted onsite, the 0.01 acre of impacts to Bedford Canyon Wash would occur within an area that was previously disturbed through authorization of Regulatory Permits for the widening and restoration of Bedford Canyon Wash and does not contain native vegetation. Therefore, no new impacts to jurisdictional waters would occur and no additional Regulatory Permits are required.

No direct impacts are expected to occur within the surrounding buffer area. Indirect impacts to the surrounding 500-foot buffer area could occur from construction activities, however impacts would be less than significant because no sensitive habitat or sensitive species are located within the Buffer Area, the habitats are common in the Project Vicinity; the area consists of disturbed/developed vegetation communities; and construction BMP’s such as compliance with air quality regulations would require frequent watering during construction activities to minimize dust.

6.1.2 Alternative 2:PA 14 Dirt Import

Figure 7 and Table 4 provides the approximate total acreages of vegetation communities that will be permanently and temporary impacted by Project activities should Alternative 2 for importing dirt be implemented.

Table 4. Total Project Impacts with Alternative 2: PA14 Dirt Import – Onsite Vegetation Community Impacts¹

Vegetation Community	Existing Vegetation onsite (acres)	Total Permanent Impacts (acres)	Total Temporary Impacts ³ (acres)	Avoided (acres)
Riversidian Sage Scrub/Chaparral	0.15	0.00	0.10	0.05
Widened and Restored Bedford Canyon Wash ²	0.20	0.01	0.09 ⁴	0.10
Ruderal	15.14	14.86	0.00	0.28
Disturbed/Developed	2.28	2.05	0.00	0.23

TOTAL	17.77	16.92	0.19³	0.66
<p><i>Notes:</i></p> <p>1. Acreages presented in the table represent those found within the Project Boundary. The surrounding 500-foot buffer consists primarily of developed/disturbed vegetation community including; Interstate-15, Eagle Glen Road, graded and disturbed land within the Arantine Hills Project.</p> <p>2. Included within the Arantine Hills Project, Widened and Restored Wash design. Specifically, the portions of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protection, and concrete Wash crossing.</p> <p>3. Temporary impacts are due to the access ramp from Phase 2B to the commercial site, which is to be constructed during grading operations. Following the completion of the grading operations the temporary dirt ramp would be removed and the bluff will be reconstructed and replanted with coastal sage scrub mix.</p> <p>4. The 0.09 acres of temporary impacts to the Widened and Restored Bedford Canyon Wash occur completely within the limits of the existing concrete pad crossing and do not impact native or seeded habitat.</p>				

Impacted Native Habitat

Of the total 16.92 acres impacted onsite as a result of Alternative 2, direct impacts to 16.91 acres are not considered significant because the habitats are common in the Project Vicinity and have minimal habitat value and are non-native habitats. Furthermore, these impacts do not represent CNDDDB, State, or MSHCP sensitive plant communities. In addition, many of these areas within the Study Area exhibit a moderate or high level of disturbance.

Of the total 16.92 acres impacted onsite, the 0.01 acre of impacts to Bedford Canyon Wash would occur within an area that was previously disturbed through authorization of Regulatory Permits for the widening and restoration of Bedford Canyon Wash. Therefore, no new impacts to jurisdictional waters would occur and no additional Regulatory Permits are required.

Temporary impacts would occur to 0.19 acres. These impacts are due to the construction of an access ramp leading down to the existing concrete crossing of Bedford Canyon Wash. Grading the access ramp would require creating a notch in the existing bluff with side slopes and temporarily fill placed on top of the existing concrete pad crossing.

Following completion of the grading operations, the temporary dirt bridge and culverts would be removed from the concrete pad crossing Bedford Canyon Wash and the notch in the bluff for the access ramp would be reconstructed at 2:1 slopes and surface terrace drains would be added to control storm runoff to minimize erosion. The graded slopes would be replanted with a native coastal sage scrub mix.

No direct impacts are expected to occur within the surrounding buffer area. Indirect impacts to the surrounding 500-foot buffer area could occur from construction activities,

however impacts would be less than significant because no sensitive habitat or sensitive species are located within the Buffer Area, the habitats are common in the Project Vicinity; the area consists of disturbed/developed vegetation communities; and construction BMP's such as compliance with air quality regulations would require frequent watering during construction activities to minimize dust.

6.2 Section 6.1.2 - Riparian/Riverine Areas and their Associated Species

The Project site was assessed for MSHCP riparian/riverine areas and vernal pools pursuant to Section 6.1.2 of the MSHCP. The Project site contains MSHCP riparian/riverine features, which are associated with the previously authorized widened and restored Bedford Canyon Wash. Impacts to Bedford Wash are associated with construction of an outlet and a temporary dirt bridge (Alternative 2).

Implementation of the Arantine Hills Specific Plan includes the widening, protection, and restoration of Bedford Canyon Wash. To permit those activities, the following Regulatory Permits and MSHCP Consistency Determination were issued:

- U.S. Army Corps of Engineers (Corps File No. SPL-2015-00361-ERS)
- California Department of Fish and Wildlife (Notification No. 1600-2015-0055-R6):
- Regional Water Quality Control Board (SARWQCB Project NO. 332014-24)
- U.S. Fish and Wildlife Service (FWS-WRIV-15B0271-16F0852)
- MSHCP Consistency Determination and Determination of Biologically Equivalent or Superior Preservation (DBESP) (FWS/CDFW-15B00271-15CPA0281)

The Regulatory Permits and MSHCP Consistency authorized the widening and restoration of Bedford Wash, including certain improvements for flood protection. Buried rip-rap extending down to scour depth was permitted along both sides of the Wash. Grade stabilizing structures were permitted perpendicular to flows. Several stormdrain outlet structures surrounded by a concrete structure were incorporated into the rip-rap lined banks to outlet storm flows from the development area into Bedford Wash. Additionally, two concrete crossings were permitted, at the far upstream and downstream limits within the Arantine Hills Specific Plan. The concrete crossings allow maintenance vehicles to cross the Wash and access the bluff side. Additionally, a future bridge crossing Bedford Wash is authorized by the Regulatory Permits. The Regulatory Permits remain active and Project activities authorized under the permits remain on-going.

The proposed Project has two components that could affect the jurisdictional areas of Bedford Canyon Wash. One component of the Project is a storm drain pipe from the on-site detention basin that must outlet into Bedford Wash. The Project proposes to outlet

the storm drain pipe with the same design as other outlets into Bedford Wash, with the pipe outletting through a concrete structure constructed into the rip-rap lined bank of Bedford Wash, which results in approximately 0.01 acre of modification to the rip-rap lined bank of Bedford Wash (Figure 6). For the proposed Project, the outlet structure will be constructed on the downstream concrete crossing, eliminating any impacts to the soft bottom portion of the Wash. Since the outlet structure is located outside of the invert of Bedford Canyon Wash, construction of the outlet structure would occur beyond the jurisdictional limits of Waters of the United States. Furthermore, since the proposed outlet structure is located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits and MSHCP Consistency Determination for the widening and restoration of Bedford Canyon Wash, and those permits remain active, no new impacts to Waters of the State or MSHCP Features would occur and no additional Regulatory Permits are required.

The second component of the Project would only occur if Alternative 2, which includes moving fill dirt from Planning Area 14 to the Project site across Bedford Wash, is implemented. In order to move fill dirt across Bedford Wash, fill would be temporarily placed on top of the existing concrete pad crossing Bedford Canyon Wash to both protect the concrete pad and function as a ramp to gain elevation. A notch would be graded into the plateau to the south of Bedford Wash and scrapers would move dirt across the temporary earthen ramp placed on the existing concrete pad crossing Bedford Wash. The placement of temporary fill on the concrete pad would cover an area of 0.09 acre of Waters of the State/MSHCP Features and 0.06 acres of Waters of the United States, which matches the area of the existing concrete pad crossing (Figure 7). No temporary fill dirt would be placed in the soft-bottom portion of Bedford Wash. Since the proposed ramp is located in an area that consists of existing concrete and was previously disturbed through authorization of Regulatory Permits for the widening and restoration of Bedford Canyon Wash, and those permits remain active, no new impacts to Waters of the State, Waters of the United States, or MSHCP Features would occur and no additional Regulatory Permits are required.

6.2.1 Impacts to Species Protected under Section 6.1.2

During vegetation mapping conducted for the Project site, no special status plants were detected during the 2019 surveys. Likewise, the Project site did not contain any suitable habitat for the avian species listed in Section 6.1.2: Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. Regardless of the Dirt Import Alternative implemented, no impacts to those special status plants and wildlife listed in Section 6.1.2 of the MSHCP are associated with Project implementation.

6.2.2 Vernal Pools

The Project site does not contain suitable habitat for any of the riparian/riverine vernal pool species listed in Section 6.1.2 of the MSHCP, including listed fairy shrimp. Regardless of the Dirt Import Alternative implemented, no impacts to those species listed in Section 6.1.2 of the MSHCP are associated with Project implementation and Dirt Import Alternative.

6.3 Section 6.1.2 - Riparian/Riverine Areas and their Associated Species

Portions of the Project site are located within the Narrow Endemic Plant Species Survey Areas (NEPSSA) Number 7, which include the following target species:

Narrow Endemic Plants

- San Diego ambrosia (*Ambrosia pumila*)
- Brand's phacelia (*Phacelia stellaris*)
- San Miguel savory (*Satureja chandleri*)

No special status plant species were observed during the 2019 surveys and none are expected to occur onsite due to the lack of suitable habitat or suitable soil found on the Project site; therefore, there are no potential impacts to special status plants due to Project implementation regardless of the Import Alternative implemented.

6.4 Section 6.3.2 -- Species Survey Requirements

The majority of the Project site supports suitable habitat for the BUOW based on the June habitat assessment. No BUOWs, suitable sized burrows, or evidence of BUOWs were observed on site within the Project site and surrounding 500-foot buffer during the focused surveys. A majority of the Project site was characterized by heavily vegetated ruderal fields and lacking adequately sized burrows to provide suitable nesting habitat for BUOW. Much of the buffer area is developed/disturbed. California ground squirrels were observed within the Project site and surrounding 500-foot buffer. The Project site contained no BUOW or keys signs (sight, whitewash, burrows, bones, feathers, pellets, nests, and calls). Furthermore, the Project site is maintained for fire abatement and the property adjacent to the Project site has active construction and grading activities (Arantine Hills Construction and I-15/Cajalco construction). Therefore, based on the lack of suitable BUOW burrows, adjacent construction activities, and maintenance and mowing of the Project site is not considered occupied by BUOW.

Section 7. Description of Avoidance and Mitigation Measures

The guidelines presented in Section 6.1.4 of the MSHCP are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. Development located in proximity to the MSHCP Conservation Area may result in edge effects that will adversely affect biological resources within the Conservation Area. The Project Site is not within or adjacent to a Criteria Cell and, therefore, a discussion of the effects pertaining to the urban/wildlife interface is not required.

7.1 Section 6.1.2 Riparian/Riverine Areas and their Associated Species

7.1.1 Avoidance and Minimization – Riparian/Riverine Areas

As part of both Project dirt import alternatives and Project implementation, an outlet will be installed within the buried riprap slope protection of Bedford Canyon Wash. The apron for the outlet opening occurs at the downstream concrete Wash crossing.

As part of Import Alternative 2, temporary impacts will occur due to the construction of an access ramp leading down to the existing concrete pad crossing of Bedford Canyon Wash. Fill would be temporarily placed on top of the existing concrete pad crossing Bedford Canyon Wash to both protect the concrete pad and function as a ramp to gain elevation. The temporary impacts total 0.09 acre of MSHCP Features will occur on the existing concrete pad crossing only (Figure 7). Furthermore, following the completion of the grading operations, the temporary dirt bridge and culverts would be removed from the concrete pad crossing Bedford Canyon Wash. Further detail is provided in Section 6.2.

Since the proposed outlet structure and temporary dirt bridge are located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits and MSHCP Consistency for the widening and restoration of Bedford Canyon Wash, no new impacts to MSHCP Riparian/Riverine Features would occur.

7.1.2 Mitigation – Riparian/Riverine Areas

For both Project dirt import alternatives, since the proposed outlet structure is located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits and MSHCP Consistency for the widening and restoration of Bedford Canyon Wash, no new impacts to MSHCP Riparian/Riverine Features would occur and no compensatory mitigation is required.

7.2 Section 6.1.3 Narrow Endemic Plant Species

7.2.1 Avoidance and Minimization - Narrow Endemic Plant Species

No narrow endemic plant species were observed during the 2019 surveys, and the Project site does not contain suitable habitat or soils; therefore, no avoidance and minimization measures are proposed.

7.2.2 Mitigation - Narrow Endemic Plant Species

No narrow endemic plant species were observed during the 2019 surveys, and the Project site does not contain suitable habitat or soils; therefore, no compensatory mitigation measures are proposed.

7.3 Section 6.3.2 -- Species Survey Requirements

7.3.1 Avoidance and Minimization – Burrowing Owl

Complete avoidance of the BUOW habitat is not feasible for Import Alternative 1 and 2.

Pre-construction presence/absence surveys for burrowing owl within the survey area where suitable habitat is present shall be conducted by a qualified biologist within 30 days of ground disturbing activities for both Import Alternatives.

If active burrowing owl burrows are detected during the breeding season, all work within 300 feet of any active burrow will be halted until that nesting effort is finished. The on-site biologist will review and verify compliance with these boundaries and will verify the nesting effort has finished. Work can resume when no other active burrowing owl burrows nests are found.

If active burrowing owl burrows are detected outside the breeding season or during the breeding season and it is determined nesting activities have not begun, then passive and/or active relocation may be approved following consultation with CDFW. The installation of one-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools when determined to be unoccupied by Project biologist, and back filled to ensure that animals do not re-enter the burrows.

Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to CDFW, and the City for mitigation monitoring compliance record keeping.

7.3.2 Mitigation – Burrowing Owl

Compensatory mitigation is not proposed because impacts to the burrowing would be avoided and/or minimized to less than significant for both Import Alternatives.

Section 8. Consistency Analysis

8.1 Section 6.1.2 - Riparian/Riverine Areas and their Associated Species

As part of both Import Alternatives and Project implementation, an outlet will be installed within the buried riprap slope protection of Bedford Canyon Wash. The apron for the outlet opening occurs at the downstream concrete Wash crossing.

As part of Alternative 2 grading operations, temporary impacts will occur due to the construction of an access ramp leading down to the existing concrete pad crossing of Bedford Canyon Wash. Fill would be temporarily placed on top of the existing concrete pad crossing Bedford Canyon Wash. Following the completion of the grading operations, the temporary dirt bridge and culverts would be removed from the concrete pad crossing Bedford Canyon Wash.

Since the proposed outlet structure and temporary dirt bridge are located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits and MSHCP Consistency for the widening and restoration of Bedford Canyon Wash, no new impacts to MSHCP Riparian/Riverine Features would occur. No species under “Purpose” of Section 6.1.2 were found in the riparian/riverine areas of the Project site.

Therefore, the proposed Project is consistent with Section 6.1.2 (Riparian/Riverine Guidelines) of the MSHCP.

The Project site is not located within or adjacent to any MSHCP Conservation Area. The area does not support the Section 6.1.2 species. Thus, no mitigation is proposed.

8.2 Section 6.1.3 – Protection of Narrow Endemic Plant Species

No narrow endemic plant species were observed in the 2019 surveys, and the Project site does not contain suitable habitat or soils.

8.3 Section 6.3.2 - Species Survey Requirements

No BUOWs or BUOW burrows were located within the Project site per the results of the focused surveys.

Regardless of the Import Alternative, the Project will be required to conduct a 30-day pre-construction survey for the BUOW according to the MSHCP Volume II, Birds, BUOW, Conservation Objective 6: “Pre-construction presence/absence surveys for burrowing owl

within the survey area where suitable habitat is present will be conducted for all Covered Activities through the life of the permit. Surveys will be conducted within 30 days prior to disturbance. Take of active nests will be avoided. Passive relocation (use of one-way doors and collapse of burrows) will occur if owls are present outside the nesting season.”

The Project is consistent with Section 6.3.2 (Species Surveys). While the Project site supports suitable habitat for the BUOW, during the focused surveys no BUOWs, or diagnostic signs of BUOWs were observed within the Project site and surrounding 500-foot buffer. However, the Project will be required to conduct a 30-day pre-construction survey for the BUOW according to *MSHCP Volume II, Birds, Burrowing Owl, Conservation Objective 6*, which states that pre-construction presence/absence surveys for the BUOW where suitable habitat is present within the survey area will be conducted 30 days prior to disturbance and ensures that take of active nests will be avoided and passive relocation will occur when owls are present outside the nesting season.

Section 9. List of Preparers

This report was prepared by Carlson Strategic Land Solutions:

- Peter Carlson, President
- Brianna Bernard, Project Manager and Biologist

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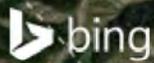
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Figures



Approximate Project Location

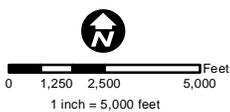


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TRILOGY

GIS Prepared By:
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Created: August 2, 2019



Data Sources: Bing Maps

**Guardian Capital: Bedford Marketplace
Regional Map**

FIGURE 1

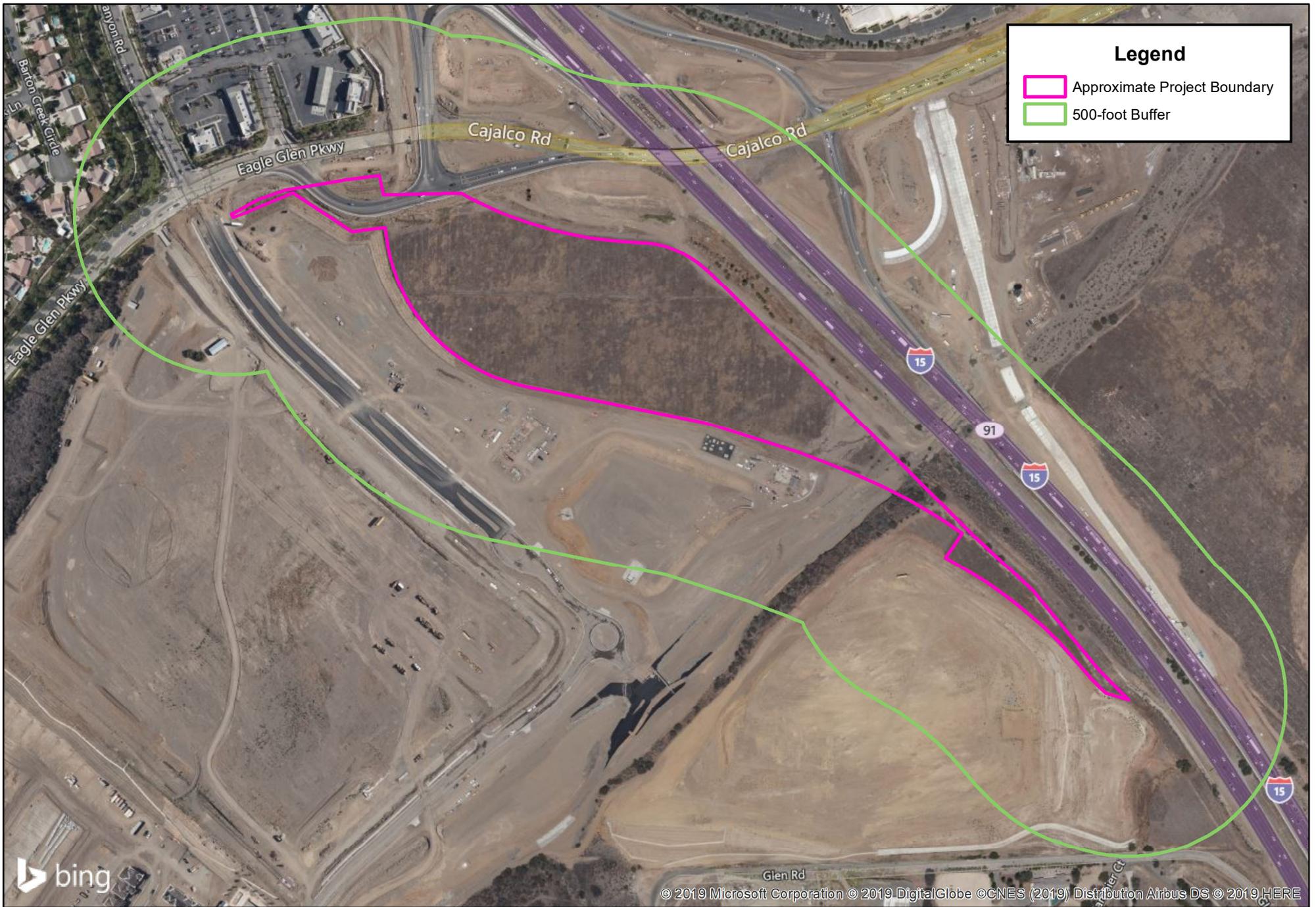
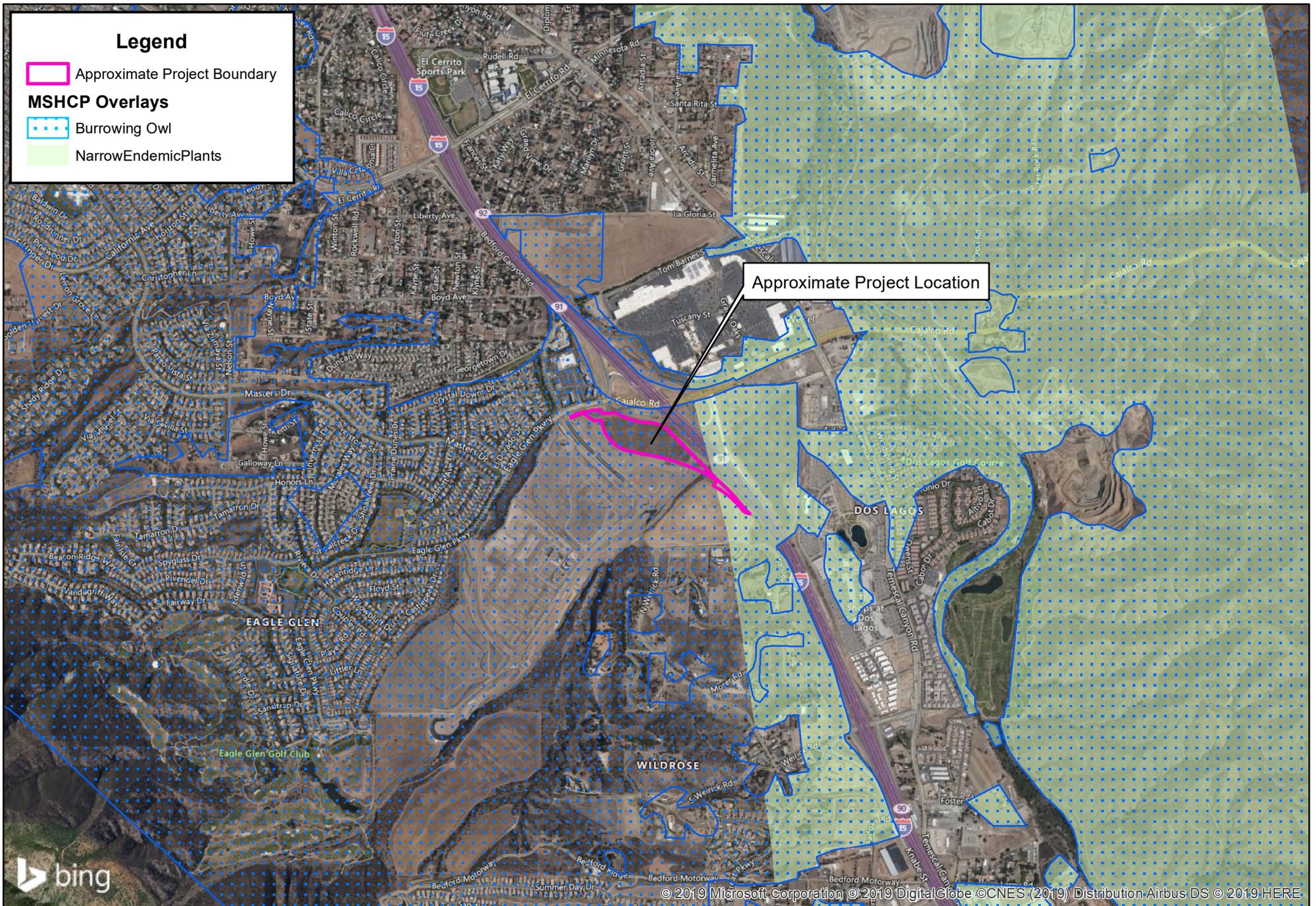


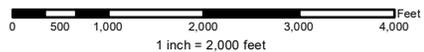
FIGURE 2



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GIS Prepared By:
Carlson SLS

Created: October 7, 2019



Data Source: Bing Maps
CH (03/2015)

Guardian Capital: Bedford Marketplace
MSHCP Overlay Results

FIGURE 3



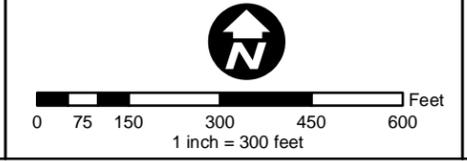
Legend

- Approximate Project Boundary
- 500-foot Buffer
- Vegetation Community**
- Riversidian SageScrub/Chaparral
- Widened and Restored Bedford Wash
- Ruderal
- Disturbed/Developed



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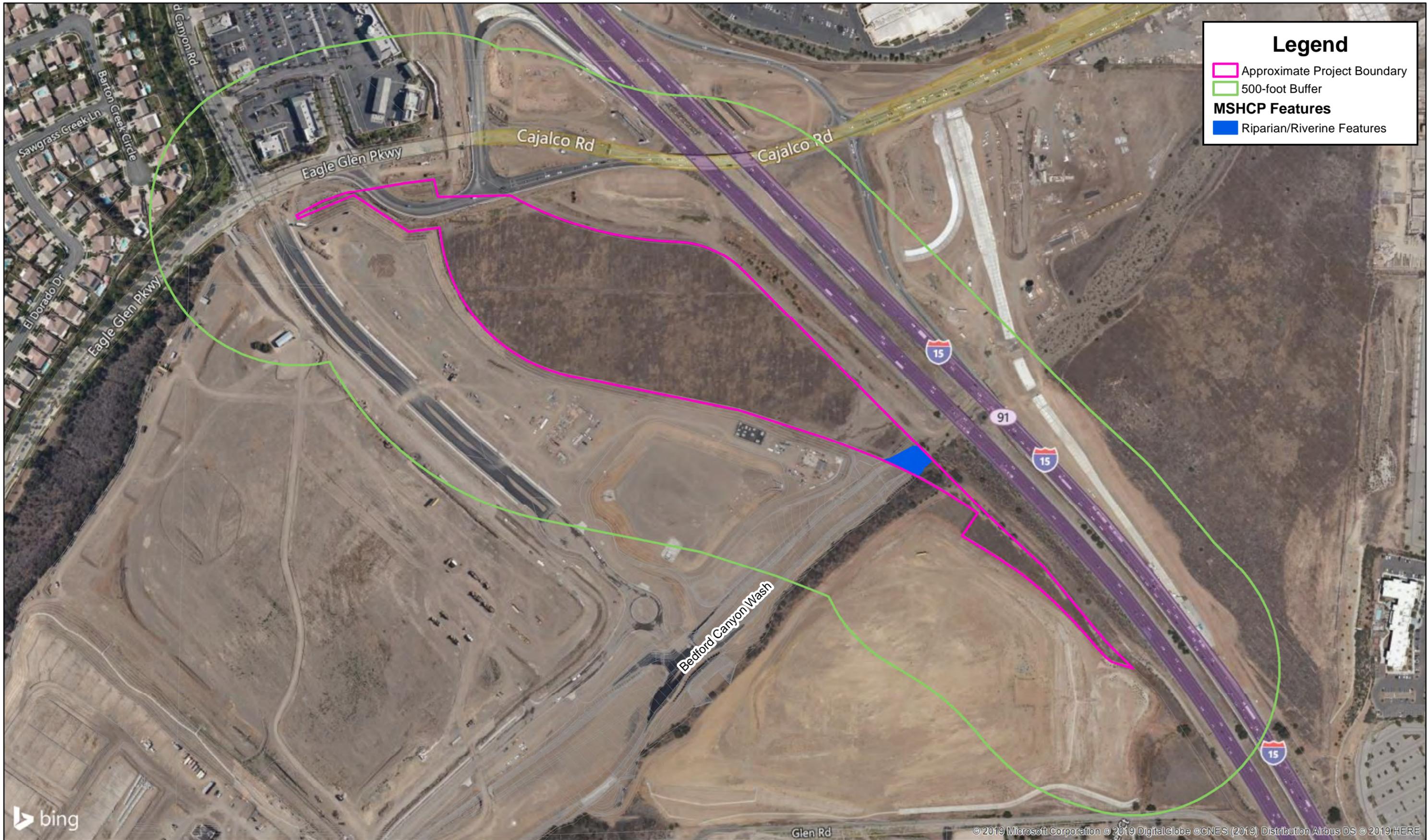
GIS Prepared By:
Carlson SLS
Created: August 2, 2019



Data Source: Bings Map
Field Visit (06/27/19)

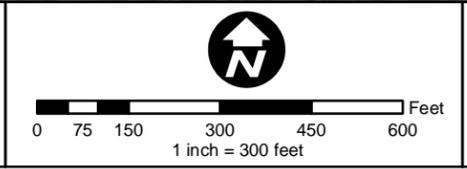
Guardian Capital: Bedford Marketplace
Vegetation Map

FIGURE 4



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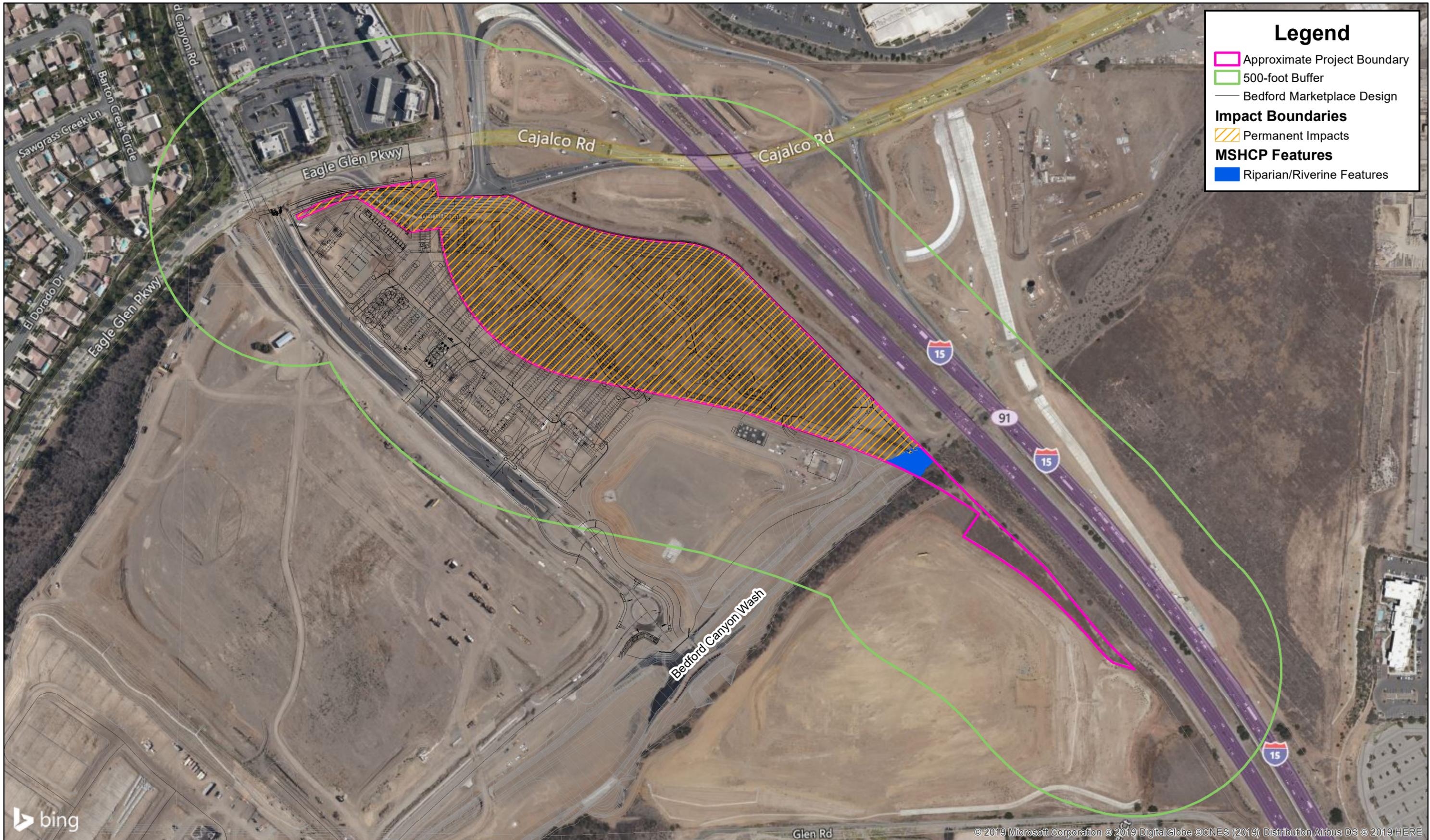
GIS Prepared By:
Carlson SLS
Created: August 2, 2019



Data Source: Bings Map
Field Visit (06/27/19)

Guardian Capital: Bedford Marketplace
MSHCP Riparian/Riverine Features

FIGURE 5



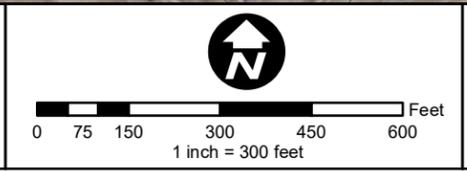
Legend

- Approximate Project Boundary
- 500-foot Buffer
- Bedford Marketplace Design
- Impact Boundaries**
- Permanent Impacts
- MSHCP Features**
- Riparian/Riverine Features



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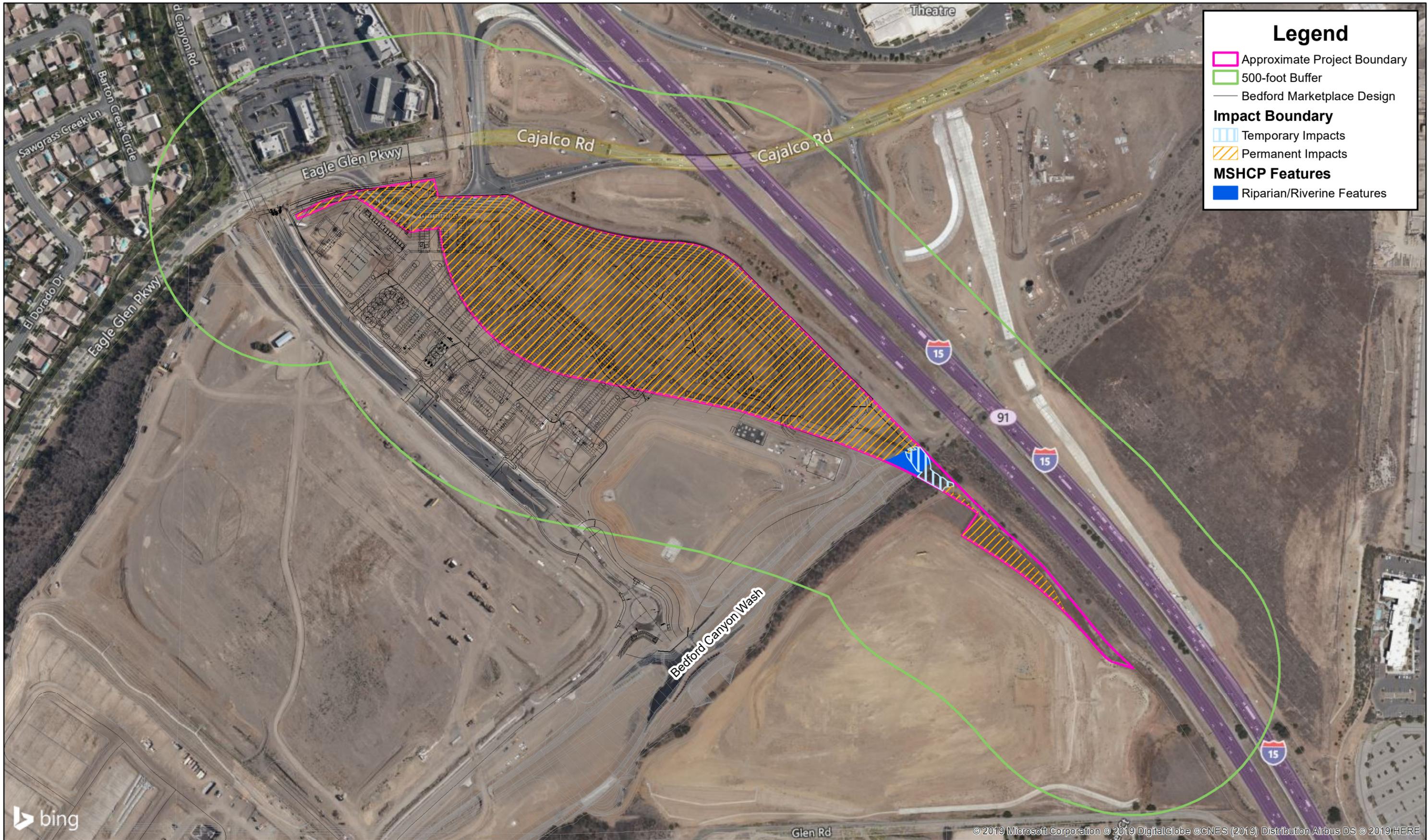
GIS Prepared By:
Carlson SLS
Created: August 2, 2019



Data Source: Bings Map
Field Visit (06/27/19)
Hunsaker (08/08/19)

Guardian Capital: Bedford Marketplace
**Alternative 1: Off-site Dirt Import Riparian/
Riverine Habitat Impacts**

FIGURE 6



Legend

- Approximate Project Boundary
- 500-foot Buffer
- Bedford Marketplace Design

Impact Boundary

- Temporary Impacts
- Permanent Impacts

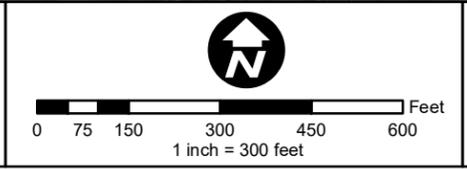
MSHCP Features

- Riparian/Riverine Features



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GIS Prepared By:
Carlson SLS
Created: October 24, 2019



Data Source: Bings Map
Field Visit (06/27/19)
Hunsaker (08/08/19)

Guardian Capital: Bedford Marketplace
Alternative 2: PA 14 Dirt Import - Riparian/Riverine
Habitat Impacts

FIGURE 7

APPENDIX A

**Biological Technical Report for
Bedford Marketplace (October 2019)**

Biological Technical Report for the Bedford Marketplace Project

Prepared for:

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October 2019

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APPENDICES

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- Focused Burrowing Owl Report

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ACRONYMS, ABBREVIATIONS, AND GLOSSARY OF TERMS

Applicant	Bedford Marketplace, LLC
BLM	United States Bureau of Land Management
BMPs	Best Management Practices
CAGN	coastal California gnatcatcher
CDF	California Department of Forestry and Fire Protection
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CRPR	California Rare Plant Rank
CWA	Clean Water Act
FESA	Federal Endangered Species Act
FGC	California Fish and Game Code
GIS	Geographic Information System
GPS	Global Positioning System
LBV	least Bell's vireo
MBTA	Migratory Bird Treaty Act
MMRP	Mitigation, Monitoring, and Reporting Program
MSHCP	Western Riverside Multiple Species Habitat Conservation Plan
MSL	mean sea level
NEPA	National Environmental Protection Act
NHD	National Hydrography Dataset
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary High-Water Mark
Project	Bedford Marketplace Project
RWQCB	Regional Water Quality Control Board
SAA	Section 1600 Streambed Alteration Agreement

SLS	Carlson Strategic Land Solutions
SWPPP	Storm Water Pollution Prevention Plan
U.S.	United States
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WQC	Section 401 Water Quality Certification

1.0 Introduction

On behalf of Bedford Marketplace, LLC (Applicant), Carlson Strategic Land Solutions (SLS) prepared this Biological Technical Report for the proposed Bedford Marketplace Project (Project) located on approximately 18 acres in the City of Corona. The Biological Technical Report for the approximately 18-acre Project site and the surrounding 500-feet, collectively known as the “Study Area,” incorporates the findings from field surveys conducted on June 27, 2019; and a total of four focused Burrowing Owl Surveys conducted in June, July, and August 2019 (Appendix A).

1.1 Purpose and Approach

This report provides a summary of the conditions present during the 2019 field surveys, an assessment of the potential presence of sensitive biological resources, an analysis of the potential impacts to those resources due to Project implementation, and proposed mitigation. This report describes the current biological resources present within the Study Area including habitat communities, jurisdictional waters, and the potential occurrence of listed and special status plant and wildlife species. The potential biological significance of site construction and development in view of federal, state, and local laws and regulations are also identified in this report. The report also recommends, as appropriate, Best Management Practices (BMPs) and avoidance and minimization measures to reduce or avoid potential impacts. While general biological resources are discussed, the focus of this assessment is on those resources considered to be sensitive. This report was prepared based upon results of a literature review and field surveys.

1.2 Project Terms

The following terms will be used throughout this document and are defined as follows:

- Project site: the approximately 18-acre Bedford Marketplace Project site.
- Study Area: the area evaluated during the field survey, including the approximately 18-acre Project site and the surrounding 500-foot area.
- Project Vicinity: intended to be a general term to describe the broader area surrounding the Study Area.

1.3 Project Location

The Project Site is located in the Bedford Canyon area of the Santa Ana Mountain foothills in the southeastern portion of Corona. The City of Corona is generally situated southwest of the City of Riverside, south of the City of Norco, and north of the City of Lake Elsinore in Riverside County, California (Figure 1). Areas surrounding the Project Site include the I-15 freeway to the east, Arantine Hills Specific Plan to the south and west; and Cajalco Road to the north (Figure 2). The

Project Site is located within the United States Geological Survey (USGS) 7.5-Minute Topographic Map *Corona South* Quadrangle.

The Project Site is owned by the Riverside County Transportation Commission and has Assessor's Parcel Numbers (APN) 279-240-033 and 279-240-019.

Access to the Project site is from the residential project referred to as Bedford, located to the west of the Project site, off Eagle Glen Parkway via Hudson House Drive. Directions to the Project site from Interstate 15 (I-15) is to exit Cajalco Road and head west onto Eagle Glen Parkway. Access is obtained via Hudson House Drive.

1.4 Existing and Historical Land Use

The overall Study Area has historically been farmed for citrus production between 1962 and 2007. Prior to the 1962 aerial photograph, the Project Site was vacant land. The former agricultural operation has reverted to ruderal vegetation. The Project site is located between the new residential community of Bedford within the Arantine Hills Specific Plan (AHSP), which has been graded, and the I-15 freeway, including the Cajalco Interchange, which is currently under construction.

Bedford Canyon Wash, located to the south of the Project Site, is an ephemeral wash with a sandy bottom and sparsely vegetated alluvial fan sage scrub and non-native vegetation. The Wash receives flows from the Santa Ana mountains, through the Eagle Glen Golf Club, through the AHSP area, continuing downstream to Temescal Creek and ultimately the Santa Ana River. As part of implementation of the AHSP, Bedford Wash has been widened and improved with buried rip-rap along the banks and buried grade control structures to control erosion and scour. Two concrete crossings (upstream and downstream) provide access to the south side of the Wash and the associated maintenance access road. Restoration of Bedford Wash includes planting with an alluvial fan sage scrub seed mix.

2.0 Project Description

The intent of the Project is to incorporate the approximate 18 acres into the existing Arantine Hills Specific Plan (AHSP) and build a new commercial center. The Project site, currently owned by the Riverside County Transportation Commission (RCTC), would increase the size of the planned commercial center within the Arantine Hills Specific Plan.

The Applicant proposes to amend the Arantine Hills Specific Plan (AHSP Amendment No. 3) to increase the boundary of the AHSP by approximately 18 acres (Project Site). The proposal would also increase the area designated Commercial in the AHSP to approximately 22 acres and increase the amount of commercial use from 80,000 square feet to approximately 134,378 square feet plus a 135-room hotel.

Project implementation includes two alternatives for construction and the importing of dirt for grading operations.

Import Alternative 1: The first option to import dirt onsite is by truck from an off-site source. A potential source of import (Borrow Site) has been identified from the FST Sand and Gravel Mine, located east of I-15 and approximately ½ mile east of El Cerrito Road. The dirt would be hauled from the Borrow Site to the Project site.

Import Alternative 2: The second option to import dirt to onsite involves importing dirt from Planning Area 14 (PA 14) within the Arantine Hills Specific Plan (AHSP). PA 14, approximately 26 acres, is located south of Bedford Canyon Wash and forms an elevated plateau above Bedford Canyon Wash.

To import dirt from PA 14, an access ramp would be graded in the northeast portion of PA 14 leading down to the existing concrete crossing of Bedford Canyon Wash. Grading the access ramp would require creating a notch in the existing bluff with side slopes. The lower portion of the access ramp would be steeper and reinforced with geo-grid or similar stabilizer. Fill, ranging from 5 feet to 10 feet would be temporarily placed on top of the existing concrete pad crossing Bedford Canyon Wash to both protect the concrete pad and function as a ramp to gain elevation.

Careful grading operations and BMPs would avoid dirt spoils in Bedford Wash. While this import operation would need to take place during the dry season, temporary pipe culverts would be placed on top of the concrete pad under the dirt ramp in case unexpected monsoonal storms caused Bedford Canyon Wash to flow.

Following completion of the import, the temporary dirt bridge and culverts would be removed from the concrete pad crossing Bedford Canyon Wash and the notch in the bluff for the access ramp would be reconstructed at 2:1 slopes and surface terrace drains would be added to control storm runoff to minimize erosion. The graded slopes would be replanted with a native coastal sage scrub mix.

3.0 Regulatory Context

The following is a list of the key local, state, and federal laws and regulations that apply to protecting plant communities, plants, wildlife, and water quality from project impacts relevant to the Project.

3.1 Federal Laws and Regulations

- Federal Endangered Species Act (FESA)
- Federal Clean Water Act (CWA)
- Migratory Bird Treaty Act (MBTA)

3.2 California State Laws and Regulations

- California Environmental Quality Act (CEQA)
- California Endangered Species Act (CESA) and Fish and Game Code (FGC) sections 2050 et seq.
- Lake and Streambed Alteration Program – FGC sections 1600-1616
- Porter-Cologne Water Quality Act – California Code, Division 7
- Migratory Birds – FGC section 3513
- Nongame Birds – FGC section 3800 (a)
- Native Plant Protection Act (NPPA) – FGC sections 1900-1913

3.3 Local Plans/Regulations

- City of Corona General Plan
- Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP): Temescal Canyon Area Plan

3.4 Regulatory Permits

This report is prepared pursuant to and in support of CEQA, and any applicable regulatory permit applications, including the California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement (SAA), Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification (WQC), United States Army Corps of Engineers (Corps) Section 404 permit, and United States Fish and Wildlife Service Section 7 Biological Opinion.

4.0 Survey and Methods

Preparation for this biological study began with a review of relevant available literature and review of historical biological documentation. This effort was followed by an onsite field survey on June 27, 2019. The purpose of the field survey was to assess the existing habitat, map any onsite sensitive plant communities and jurisdictional waters, and determine whether special status plant and wildlife species occur or potentially occur within the Study Area.

4.1 Literature Review

The study began with a review of relevant available literature on the biological resources within the Study Area and Project Vicinity. The Project site is located within the boundary of the Western Riverside MSHCP, specifically within the Temescal Canyon Area Plan.

4.1.1 Sensitive Plant Communities

Sensitive plant communities (sensitive habitats) are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. Sensitive habitats are often threatened with local extirpation and are therefore considered valuable biological resources. Plant communities are considered "sensitive" by the California Native Plant Society (CNPS) and CDFW if they meet any of the criteria listed below.

- The habitat is recognized and considered sensitive by CDFW, United States Fish and Wildlife Service (USFWS), and/or special interest groups such as CNPS.
- The habitat is under the jurisdiction of the Corps pursuant to Section 404 of the CWA.
- The habitat is under the jurisdiction of the CDFW pursuant to Sections 1600 through 1612 of the California Fish and Game Code.
- The habitat is known or believed to be of high priority for inventory in the California Natural Diversity Database (CNDDDB).
- The habitat is considered regionally rare.
- The habitat has undergone a large-scale reduction due to increased encroachment and development.
- The habitat supports special status plant and/or wildlife species (defined below).
- The habitat functions as an important corridor for wildlife movement.

4.1.2 Critical Habitat

Under the ESA, the federal government is required to designate "critical habitat" for any species it lists under the ESA. Federal agencies are prohibited from authorizing, funding or carrying out actions that "destroy or adversely modify" critical habitats. Section 3 of the ESA defines critical habitat as:

- The specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection.

- The specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

“Conservation” means the use of all methods and procedures that are necessary to bring an endangered or a threatened species to the point at which listing under the ESA is no longer necessary. Critical habitat receives protection under Section 7(a)(2) of the ESA through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a federal agency. Section 7(a)(2) also requires conferences on federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat.

The USFWS’s online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California was reviewed to determine if the Study Area is within any species’ designated Critical Habitat (USFWS 2019a). The USFWS regulatory mapping process for the designation of critical habitat is an imprecise, broad-based, mapping exercise of areas that may or may not include constituent elements of the critical habitat designation. Due to this approach in mapping, large areas are designated as critical habitat regardless of the existing habitat, and as a result may include developed areas, such as buildings, roads, hardscape, and other such facilities, as well as natural habitats.

The constituent elements of the critical habitat designation consider the physical and biological features needed for life processes and successful reproduction of the listed species, including:

- Space for individual and population growth for normal behavior;
- Habitat cover or shelter;
- Food, water, or other nutritional or physiological requirements;
- Sites for breeding and rearing offspring; and
- Habitat that is protected from disturbance or is representative of the historical geographic and ecological distribution of a species.

4.1.3 Special Status Plants and Wildlife

Species of plants and animals are afforded “special status” by federal agencies, state agencies, and/or non-governmental organizations (e.g., USFWS, CDFW, and USFS, and CDF) because of their recognized rarity, potential vulnerability to extinction, and local importance. These species typically have a limited geographic range and/or limited habitat and are referred to collectively as “special status” species. Plant and wildlife species are considered “special status” species if they meet any of the following criteria.

- Taxa with official status under ESA, CESA, and/or the NPPA.
- Taxa proposed for listing under ESA and/or CESA.
- Taxa designated a species of special concern by CDFW.
- Taxa designated a state fully protected species by CDFW.

- Taxa identified as sensitive, unique or rare, by the USFWS, CDFW, the United States Forest Service (USFS), the United States Bureau of Land Management (BLM), and/or the California Department of Forestry and Fire Protection (CDF).
- Plants that meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
 - Species considered by CNPS and CDFW to be “rare, threatened or endangered in California” (California Rare Plant Rank [CRPR] 1A, 1B and 2) (CNPS 2018). A majority of the CRPR 3 and CRPR 4 plant species generally do not qualify for protection under CESA and NPPA.
 - Species that may warrant consideration on the basis of local significance or recent biological information.
 - Some species included on the CNDDDB Special Plants, Bryophytes, and Lichens List (CDFW 2019g).
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

Available literature and databases were reviewed regarding sensitive habitats and special status plant and wildlife species. Special status plant and wildlife species that have the potential to occur within the immediate region of the Study Area were identified. Several agencies, including the USFWS, CDFW, and CNPS publish lists of particular taxa (species and subspecies) and the associated level of protection or concern associated with each. Reviewed and consulted literature and databases focused on the Study Area, and included the following sources listed below:

- The CNDDDB, a CDFW species account database that inventories status and locations of rare plants and wildlife in California, was used to identify any sensitive plant communities and special status plants and wildlife that may exist within a two-mile radius of the Project site. A CNDDDB search was performed by assessing a two-mile radius around the Study Area (CDFW 2019f). CNDDDB records are generally used as a starting point when determining what special status species, if any, may occur in a particular area. However, these records may be old, lack data not yet entered, and do not represent all the special status species that could be in that particular area (Figure 3).
- A map of USFWS critical habitat to determine species with critical habitat mapped in the general vicinity of the Project (Figure 4) (USFWS 2019a).
- Online CNPS Inventory of Rare and Endangered Plants of California (CNPS 2019). A search for the USGS 7.5-Minute Topographic Map Corona South Quadrangle provided information regarding the distribution and habitats of special status vascular plants in the Project Vicinity.
- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides.

The literature review was used as a resource to better understand the biological resources potentially occurring within the Study Area. Although the inventory list of special status plant and wildlife species was not exhaustive of all species that might occur on the property, it provides a wide range of species that are representative of the wildland habitats in the area. Species occurrence and distribution information is based on documented occurrences where surveys have taken place for individual projects; therefore, a lack of documented occurrence does not necessarily indicate that a given species is absent from the Study Area.

4.1.4 Jurisdictional Waters

The following sources were reviewed to determine the potential presence or absence of jurisdictional streams/drainages, wetlands, and their location within the watersheds associated with the Study Area, and other features that might contribute to federal or state jurisdictional authority located within watersheds associated with the Study Area:

- National Wetlands Inventory (NWI) maps (USFWS 2019c). The NWI database indicates potential wetland areas based on changes in vegetation patterns as observed from satellite imagery. This database is used as a preliminary indicator of wetland habitats because the satellite data are not precise.
- Title 33 Code of Federal Register (CFR): Navigation and Navigable Waters Part 328
- USGS National Hydrography Dataset (NHD). Provides the locations of “blue-line” streams as mapped on 7.5-Minute Topographic Map coverage.
- Aerial Imagery (Google Earth©) (Google 2019).
- USGS 7.5-Minute Topographic Maps.
- Natural Resource Conservation Service (NRCS) Soil Survey.

4.1.5 MSHCP Assessment

The Project site is located within the MSHCP, specifically within the Temescal Canyon Area Plan. The MSHCP is a comprehensive plan that includes portions of the County of Riverside and numerous cities. The MSHCP plans for conservation of 146 species and proposes a reserve system of approximately 500,000 acres. The MSHCP is intended to contribute to the economic viability of the County of Riverside by providing landowners, developers, and public infrastructure projects a streamlined regulatory process.

The Riverside Conservation Authority (RCA) MSHCP Information Application website was reviewed to verify any overlays that may occur on the Project site. Regardless of other overlays, MSHCP Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*, is applicable to all projects within the MSHCP and describes the process through which protection of riparian/riverine areas, and vernal pools will occur within the MSHCP Area. Protection of these resources is important for a number of MSHCP conservation objectives. An assessment of a Project’s potentially significant effects on riparian/riverine areas and vernal pools is required. Guidelines for determining whether or not these resources exist on site are described as follows:

- **Riparian/Riverine Areas** include “lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens which occur close to or which depend upon soil moisture from a nearby fresh water source or areas with fresh water flow during all or a portion of the year.” Riparian/riverine areas under the MSHCP also include drainage areas that are vegetated or have upland (non-riparian/riverine) vegetation and that drain directly into an area that is described for conservation under the MSHCP (or areas already conserved). The Project site was assessed for areas meeting this definition during the jurisdictional delineation performed on June 27, 2019.
- **Vernal Pools** are described by the MSHCP as “seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season.” This definition excludes artificially created wetlands created for proving wetlands habitat or human actions to create open waters or altering natural streams demonstrating characteristic as described above. The Project site was assessed for areas meeting this definition during the jurisdictional delineation performed on June 27, 2019.

4.2 Biological Survey

4.2.1 General Biological Survey

A field survey was performed on June 27, 2019 by SLS biologist Brianna Bernard to assess and map vegetation communities, plants, and wildlife, and to identify habitat areas that could be suitable for special status plant species.

Plant species were identified using plant field and taxonomical guides, such as The Jepson Manual: Vascular Plants of California, second edition (Baldwin et al. 2012). All plant species encountered during the field survey were identified and recorded in field notes. A one-day survey cannot be used to conclusively determine presence or absence of a species; therefore, assessments of presence/absence were made based on the previous surveys, presence of suitable habitat and soils to support the species, known records or occurrence within the area, and known distribution and elevation range obtained from the relevant literature.

During the field survey, the biologist assessed the existing habitat within the Study Area using aerial maps and a Trimble R1 GNSS Receiver paired with the ARC Geographical Information System (ARCGIS) Collector Application. The biologist paid special attention to those habitat areas that had the potential to provide suitable habitat for special status plant and wildlife species. Aerial photographs and maps were used to assist in the delineation of plant community boundaries. Following field mapping, the plant communities were digitized, and the vegetation map was created. General wildlife surveys were conducted on foot and with binoculars within the Study Area.

All wildlife species encountered visually or audibly during the field survey were identified and recorded in field notes. Biologists also recorded signs of wildlife species including animal tracks,

burrows, nests, scat, and remains. Binoculars were used to aid in the identification of observed wildlife. Wildlife field guides and photographs were used to assist with identification of wildlife species during the field survey, as necessary. Photographs were taken to document existing conditions within the Study Area (Appendix B).

4.3 Focused Burrowing Owl Survey

The Project site falls within a MSHCP Burrowing Owl (BUOW) overlay (Figure 4). A Habitat Assessment was conducted on June 27, 2019 to determine any suitable BUOW habitat onsite. Following the assessment, a series of Focused Burrowing Owl surveys were conducted on July 8, July 25, and August 1, 2019 pursuant to MSHCP Section 6.3.2, MSHCP Protocol Survey Instructions, and the methods used to detect and identify BUOW included observation of key signs identified by the *California Burrowing Owl Consortium (CBOC)*. This includes observation of key signs such as sight, scat, tracks, burrows, nests, and calls. All encountered burrows or structure entrances were checked for the presence of BUOWs, molted feathers, cast pellets, prey remains, eggshell fragments, tracks, or excrement at or near a burrow entrance. Natural or man-made structures that could support BUOWs were also surveyed when present. The complete results for the Protocol Focused BUOW Report can be found in Appendix A.

Each of the survey efforts were conducted in the morning between 7:15 a.m. and 11:50 a.m. and were not performed during periods of excessive or abnormal heat, wind, rain, or other inclement weather. The Study Area was assessed for the suitability to support burrowing owls and all suitable burrows were inspected for signs of use by burrowing owls. The survey involved walking through suitable habitat within the Study Area (the Project site and a 500-foot buffer). The pedestrian survey transects were spaced approximately 10 to 15 meters apart to allow 100 percent visual coverage of the ground surface.

4.4 Jurisdictional Delineation

An assessment of the Study Area for the presence of jurisdictional features was conducted by SLS biologist Brianna Bernard on June 27, 2019. All depressions and drainages were evaluated for the presence of jurisdictional waters and wetlands according to the Corps and CDFW delineation guidelines, including connectivity or lack of connectivity to Traditional Navigable Waters. Dominant vegetation within and adjacent to the jurisdictional features within the Study Area was identified and recorded.

The Corps and the RWQCB have jurisdiction over Waters of the United States. Jurisdictional non-wetland features for the Waters of the United States are typically determined through the observation of an Ordinary High Water Mark (OHWM), which is defined as the “line on the shore established by the fluctuation 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.” Projects with impacts to Waters of the United States are regulated under Sections 401 and 404 of the Clean Water Act.

To determine the presence of a jurisdictional wetland for the Waters of the United States, three indicators are required: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The methodology published in the *United States Army Corps of Engineers 1987 Wetland Delineation Manual* and the *Arid West Supplement* sets the standards for meeting each of the three indicators, which normally require more than 50 percent cover of dominant plant species typical of a wetland, soils exhibiting characteristics of saturation, and hydrological indicators be present.

CDFW has jurisdiction over water of the Department’s interest (California Fish and Game Code §§1600 et seq.; California Code of Regulations, Title 14, §720). Section 1602 of the California Fish and Game Code (FGC) applies to all rivers, streams, lakes and streambeds. CDFW defines a stream as “a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators” (Brady and Vyverberg 2013). Likewise, CDFW regulates jurisdictional areas of riparian habitat only to the extent that those areas are part of a stream, river, or lake as defined above. Waters of the State pertaining to Porter-Cologne in relation to RWQCB jurisdiction are defined by California Water Code Section 13050(e) as any surface or ground water within the boundaries of the state.

Prior to the field investigation, SLS biologist reviewed adjacent project biological reports, historical aerial imagery and topography for the Study Area to determine the potential for perennial, intermittent, or ephemeral drainages and associated riparian resources. Generally, indicators of jurisdictional drainages on an aerial photo include vegetation and/or incised lines indicating the path of flowing water. Following the desktop research, SLS biologist conducted an onsite field investigation. Based on the collective results of the desktop investigation and the field surveys, any observed jurisdictional features were mapped using the following parameters:

- The limits of the Corps’ jurisdiction extend to the OHWM. OHWM indicators include: the observation of benches, break in bank slope, particle size distribution, sediment deposits, drift, litter, and/or change in plant community.
- The RWQCB shares the Corps’ jurisdictional methodology.
- CDFW’s jurisdiction applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state. CDFW’s authority also includes 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, CDFW jurisdiction is mapped to the top of bank of the stream.

5.0 Results

5.1 Vegetation Communities

The vegetation communities and habitat conditions were inspected to confirm presence and habitat quality of the vegetation found onsite. Vegetation communities were mapped based on the Holland Classification System (Holland 1986). Where necessary, deviations were made on best professional judgment when areas did not fit into a specific habitat description provided by Holland. Plant communities were mapped in the field directly onto a 200-scale (1" = 200') aerial photograph and a Trimble R1 GNSS Receiver paired with the ARCGIS Collector Application was utilized during the survey. Biologists confirmed the presence and general quality of the four vegetation communities. Vegetation mapping and acreages for each vegetation community is based on the observations of the field surveys, which are listed below in Table 1 and graphically depicted on Figure 5. Representative photographs of the vegetation communities can be found in Appendix B.

The deviations from Holland include the Disturbed/Developed and the Widened and Restored Wash categories. The deviations for the Developed community was made because of the lack of, or limited habitat values, and includes non-native or invasive species. The deviations for the Widened and Restored Wash community was made because installation of riprap bank protection, grade stabilizers, concrete crossings, and associated ramps deviate from a natural wash classification. This was a result of implementation of the adjacent Arantine Hills Project and impacts were previously accounted for and permits obtained for Arantine Hills implementation. While Bedford Wash currently exhibits limited habitat value, the area is to be seeded with Alluvial Fan Sage Scrub and maintained in perpetuity per the Arantine Hills Long-Term Management Plan.

The field survey included a 500-foot buffer around the Project site to determine what vegetation types exist adjacent to the Project site in order to determine the potential significance of indirect impacts. As shown on Figure 5, the surrounding 500-foot buffer consists primarily of developed/disturbed vegetation community including; Interstate-15, Eagle Glen Road, graded and disturbed land within the Arantine Hills Project. A small portion of the 500-foot buffer area includes the Widened and Restored Bedford Canyon Wash.

Table 1. Vegetation Community Observed within the Project Site¹

Vegetation Community	Acreage within in the Project Site (acres)
Riversidian Sage Scrub/Chaparral	0.15
Widened and Restored Bedford Canyon Wash ²	0.20
Ruderal	15.14
Disturbed/Developed	2.28
TOTAL	17.77
Notes:	
1. Acreages presented in the table represent those found within the Project Boundary. The surrounding 500-foot buffer consists primarily of developed/disturbed vegetation community including; Interstate-15, Eagle Glen Road, graded and disturbed land within the Arantine Hills Project.	
2. Included within the Arantine Hills Project, Widened and Restored Wash design. Specifically, the portion of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protections, and concrete Wash crossing and grade stabilization.	

The general description of the habitat observed during the 2019 field survey is described below.

5.1.1 Riversidian Sage Scrub/Chaparral

Approximately 0.15 acres of the Project site is comprised of Riversidian Sage Scrub/Chaparral. This vegetation community is located on the slope of the south bluff of Bedford Canyon Wash. The Riversidean Sage Scrub/Chaparral community is dominated by shrubs such as laurel sumac (*Malosma laurina*), white sage (*Salvia apiana*), toyon (*Heteromeles arbutifolia*), Mexican elderberry (*Sambucus mexicana*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), deerweed (*Acmispon glaber*), California buckwheat (*Eriogonum fasciculatum*), chamise (*Adenostoma fasciculatum*), and tree tobacco (*Nicotiana glauca*). The understory of the community consists primarily of non-native species such as red brome (*Bromus madritensis ssp. rubens*), ripgut brome (*Bromus diandrus*), tocalote (*Centaurea melitensis*), and summer mustard (*Hirschfeldia incana*).

5.1.2 Widened and Restored Wash

Approximately 0.20 acres of the Project site is comprised of widened and restored Bedford Canyon Wash (Wash). The original Wash was widened from an approximately 90 feet to 200 feet. Various structures, including buried slope protection, buried grade control structures, and access ramps, are included within the design. The overall restored Wash will be hydroseeded with an alluvial fan sage scrub hydroseed mixture. Specifically, the portion of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protections, and the concrete Wash crossing and grade stabilization.

5.1.3 Ruderal

A total of 15.14 acres of the Project site consists of the ruderal community. This vegetation community occurs in the location of the historical citrus operations. It is generally maintained (trimmed) annually due to fire management. Vegetation within this area is comprised of

predominantly of cheeseweed (*Malva parviflora*). Other species include Russian thistle (*Salsola tragus*), summer mustard (*Hirschfeldia incana*), rat-tail fescue (*Festuca microstachys*), foxtail brome (*Bromus madritensis ssp. rubens*), riggut brome (*Bromus diandrus*), tocalote (*Centaurea melitensis*), Jimson weed (*Datura stramonium*), giant reed (*Arundo donax*), and a few scattered coyote bush (*Baccharis pilularis*), and laurel sumac (*Malosma laurina*).

5.1.4 Developed/Disturbed

A total of 2.28 acres of disturbed area consisting of bare dirt, dirt roads, and sparse vegetation is mapped onsite. The developed/disturbed community contains limited habitat value and includes non-native or invasive species. This community also includes areas of disturbance from both the grading of Arantine Hills and the construction of the Cajalco Interchange.

5.2 Plants

Sensitive plant species include federal or state listed threatened or endangered species, those species listed on the CNPS rare and endangered plant inventory. A single listed plant species occurs within the USGS 7.5' Corona South quadrangle and a brief description of that species is included below. Special status plant species with the potential to occur in the Project site were analyzed based on distribution, habitat requirements, and existing site conditions (Appendix C). All plant species observed within the Project site totaled 22 species during the survey on June 27, 2019 are listed in Appendix D of this report.

Brand's Phacelia (*Phacelia stellaris*)

Status: California Rare Plant Rank 1B.1

Distribution: Orange, Riverside, San Bernardino, and San Diego Counties.

Habitat(s): Habitats supporting coastal scrub and coastal dunes. Known from 1 to 400 meters (3 to 1,300 feet) MSL. Blooms March through June.

Status onsite: None. The site lacks suitable habitat and soils. Not observed during field visit.

Munz's Onion (*Allium munzii*)

Status: state threatened, federally endangered

Distribution: Los Angeles, Riverside, San Bernardino, and San Diego Counties.

Habitat(s): Clay soils supporting chaparral, cismontane woodland, coastal scrub, pinyon-juniper woodland, and valley and foothill grassland. Known from 300 to 1,070 meters (1,000 to 3,500 feet) MSL. Blooms March through May.

Status onsite: None. The site lacks suitable habitat and soils. Not observed during field visit.

San Diego ambrosia (*Ambrosia pumila*)

Status: federally endangered

Distribution: Riverside County and San Diego Counties.

Habitat(s): Found along drainages and areas adjacent to riparian areas. Nearest location is San Luis Rey. Blooms June through September.

Status onsite: Clay or sandy loam soils supporting chaparral, costal scrub valley and foothill grassland and vernal pools. Known from 20 to 415 meters (65 to 1,300 feet) MSL. Blooms April through October. Not observed during field visit.

San Miguel Savory (*Satureja chandleri*)

Status: California Rare Plant Rank 1B.2

Distribution: Los Angeles, Riverside, San Bernardino, and San Diego Counties.

Habitat(s): Rocky, gabbroic, or metavolcanic soils supporting chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. Known from 120 to 1,075 meters (390 to 3,500 feet) MSL. Blooms March through July.

Status onsite: None. The site lacks suitable habitat and soils. Not observed during field visit.

As determined through the 2019 survey, no special status plant species were observed within the Study Area and there is no opportunity for them to occur due to the disturbed and developed area onsite. Furthermore, the Study Area lacks suitable habitat and soils.

5.3 Critical Habitat

The USFWS's online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California was reviewed to determine if the Project site is within any species' designated Critical Habitat. The Project site and Buffer Area do not contain a designated Critical Habitat overlay. The closest designated Critical Habitat is located approximately 0.01 mile south for the coastal California gnatcatcher (*Poliioptila californica californica* [CAGN]) (Figure 4).

5.4 Wildlife

Special status wildlife species with the potential to occur on the Project site were analyzed based on the species identified in USGS 7.5' Corona South quadrangle and the surrounding eight quadrangles, distribution, habitat requirements, and existing site conditions (Appendix E). No special status wildlife was identified or observed within the Project site during the field visit. However, the following species were listed through the CNDDDB as being observed within 2-miles of the Project site: California horned lark (*Eremophila alpestris actia*), coastal California gnatcatcher, coastal whiptail (*Aspidoscelis tigrus stejnegeri*), coast horned lizard (*Phrynosoma blainvillii*), least Bell's vireo (*Vireo bellii pusillus*), orange-throated whiptail (*Aspidoscelis hyperythra*), red-diamond rattlesnake (*Crotalus ruber*), Stephen's Kangaroo Rat (*Dipodomys stephensi*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), and western spadefoot (*Spea hammondi*). A brief description of those species and their habitat is included below.

California Horned Lark (*Eremophila alpestris actia*)

Status: CDFW watch list

Habitat(s): A year-long resident within the state and within a variety of open habitats, usually where trees and large shrubs are absent. They are not particular about the nature of the field, so long as it has very little vegetation. Range-wide, they breed in level or gently sloping short grass prairies, montane meadows, “bald” hills, open coastal plains, fallow grain fields, alkali flats, and rangelands. Within southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover.

Status onsite: Moderate potential to occur onsite. Suitable habitat exists onsite due to the maintenance for fire abatement and bare areas, which results in areas with little to no vegetation. Observed during the field survey within the surrounding 500-foot buffer, however, was not observed onsite.

Coastal California gnatcatcher (*Polioptila californica californica*)

Status: federally threatened, CDFW species of special concern

Distribution: Southern Los Angeles, Orange, western Riverside, and San Diego counties south into Baja.

Habitat(s): Coastal sage scrub of varying subtypes, sometimes riparian, chaparral, and other habitats as well.

Status onsite: None. The site lacks suitable habitat. Not observed during field visit.

Coastal whiptail (*Aspidoscelis tigrus stejnegeri*)

Status: CDFW species of special concern

Habitat(s): This species is found in a variety of habitats, primarily hot and dry open areas with sparse vegetation including chaparral, woodland, and riparian areas. This subspecies is found in coastal southern California, north into Ventura County, and south into Baja California. Additional important habitat characteristics include Important habitat components include shrub cover with accumulated leaf litter, and an abundance of invertebrate prey, particularly termites.

Status onsite: None. The site lacks suitable habitat. Not observed during field visit.

Coast horned lizard (*Phrynosoma blainvillii*)

Status: CDFW species of special concern

Habitat(s): Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland and riparian woodlands.

Status onsite: None. The site lacks suitable habitat. Not observed during field visit.

Least Bell's Vireo (*Vireo bellii pusillus*)

Status: federally endangered, state endangered

Habitat(s): This species primarily occupies riverine riparian habitats that typically feature dense cover within 1-2 m of the ground and a dense, stratified canopy. Typically, it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodland, 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.

Status onsite: None. The site lacks suitable habitat. Not observed during field visit.

Orange-Throated Whiptail (*Aspidoscelis hyperythra*)

Status: CDFW species of special concern

Habitat(s): The species is generally found in semi-arid brushy areas typically with loose soil and rocks, including washes, stream sides, rocky hillsides, and coastal chaparral. Habitat types include low elevational chaparral, non-native grassland, (Riversidian) coastal sage scrub, juniper woodland and oak woodland. Associations include alluvial fan scrub and riparian areas. Friable soil appears to be a necessary requirement for excavating burrows and hiding eggs.

Status onsite: None. The site lacks suitable habitat. Not observed during field visit.

Red-Diamond Rattlesnake (*Crotalus ruber*)

Status: species of special concern

Habitat(s): 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. They need rodent burrows, cracks in rocks or surface cover objects.

Status onsite: Limited habitat is found onsite due to the bare and disturbed areas with heavy brush found onsite, and maintenance for fire abatement. Not observed during field visit.

Stephen's Kangaroo Rat (*Dipodomys stephensi*)

Status: federally endangered, state threatened

Habitat(s): This species prefers large areas of disturbed or patchy annual and perennial grasslands and open coastal sage scrub. Preferred perennials plant species include buckwheat and chamise and preferred annual plant species include brome grass. The nearest known populations are in Rancho Guejito and at the Naval Weapons Station in Fallbrook.

Status onsite: None. The site lacks suitable habitat. Not observed during field visit.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)

Status: CDFW watch list

Habitat(s): They are found on grass-covered hillsides, coastal sage scrub, and chaparral and often occur near the edges of the denser scrub and chaparral associations. Preference is shown for tracts of California sagebrush. Optimal habitat consists of sparse, low brush or grass, hilly slopes preferably interspersed with boulders and outcrops. The species may occur on steep grassy slopes without shrubs if rock outcrops are present. It is a very secretive species.

Status onsite: None. The site lacks suitable habitat. Not observed during field visit.

Western Spadefoot (*Spea hammondi*)

Status: CDFW species of special concern

Habitat(s): May be found in coastal sage scrub, open chaparral, pine-oak woodlands and grassland habitats, but is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas. Within these habitats, they require rain pools/vernal pools in which to reproduce and that persist with more than three weeks of standing water in which to metamorphose successfully. They can also breed in slow-moving streams (e.g., areas flooded by intermittent streams). Water breeding sites must lack fish, bullfrogs, and crayfish in order for to successfully reproduce and metamorphose.

Status onsite: None. The site lacks suitable habitat. Not observed during field visit.

Summary of Sensitive Species

No special status species or evidence of their presence were observed or heard during the 2019 survey. Given the site's annual maintenance for fire abatement, existing surrounding uses (Arantine Hills Construction and I-15/Cajalco construction), and lack of habitat there is no opportunity for them to occur within the Study Area.

5.4.1 Wildlife Species Observed or Detected

The animal species or signs thereof observed during the SLS survey are listed below:

Birds:

- American crow (*Corvus brachyrhynchos*)
- Anna's hummingbird (*Calypte anna*)
- black phoebe (*Sayornis nigricans*)
- California quail (*Callipepla californica*)
- California towhee (*Melospiza crissalis*)
- house finch (*Haemorhous mexicanus*)
- mourning dove (*Zenaida macroura*)
- red-tailed hawk (*Buteo jamaicensis*)
- song sparrow (*Melospiza melodia*)
- turkey vulture (*Cathartes aura*)
- California Horned Lark (*Eremophila alpestris actia*)
- western scrub jay (*Aphelocoma californica*)

Mammals:

- California ground squirrel (*Spermophilus beecheyi*)
- desert cottontail (*Sylvilagus audubonii*)

Reptiles:

- western fence lizard (*Sceloporus occidentalis*)

5.5 Focused Burrowing Owl Survey

Per the MSHCP BUOW Survey Instructions, a Habitat Assessment was conducted on June 27, 2019 to determine if any suitable BUOW habitat occurred onsite. Following the habitat assessment, three additional focused surveys took place on July 8, 25, and August 1, 2019 between 7:15 a.m. and 11:50 a.m. Temperatures during the survey ranged between 64° F and 95° F, with generally predominant sunny, clear skies and 0-2 mph winds. The surveys were conducted during typical BUOW peak activity time and was not conducted during rain, high winds (> 20 miles per hour), dense cloud cover >75%. Prior to the commencement of the survey, SLS biologist scanned the Study Area, consisting of the Project site and the surrounding 500-foot buffer, using binoculars to look for burrowing owl. The Study Area was assessed for the suitability to support burrowing owls and all suitable burrows were inspected for signs of use by burrowing owls. The surveys involved walking through suitable habitat within the Study Area. Pedestrian survey transects were spaced approximately 10 to 15 meters apart to allow 100 percent visual coverage of the ground surface.

No BUOWs or evidence of BUOWs were observed on site within the Study Area during the focused survey. A majority of the Project site was characterized by actively maintained ruderal fields, lacking necessary sized burrows to provide suitable nesting habitat for BUOW. Much of the buffer area is developed, with Arantine Hills to the west and I-15 to the east. California ground squirrels and their burrows were observed within the Study Area. These burrows were actively utilized by the California ground squirrels and contained no BUOW or keys signs (sight, whitewash, burrows, bones, feathers, pellets, nests, and calls). Furthermore, the Project site is maintained for fire abatement and the property adjacent to the Project site has active construction and grading activities including the I-15/Cajalco Interchange. Please refer to Appendix A for the complete results for the focused survey.

5.6 Regional Connectivity/Wildlife Movement

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967, Soule 1987, Harris and Gallagher 1989). Corridors effectively act as links between different populations of a species. A group of smaller populations (termed “demes”) linked together via a system of corridors is termed a “meta-population.” The long-term health of each deme within the meta-population is dependent upon its size and the frequency of interchange of individuals (immigration versus emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and

gene combinations that increases overall genetic diversity. An increase in a population's genetic variability is generally associated with an increase in a population's health.

Corridors mitigate the effects of habitat fragmentation by:

- Allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity.
- Providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction.
- Serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories:

- Dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions).
- Seasonal migration.
- Movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing" to refer to areas in which wildlife moves from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

- Travel route: a landscape feature (such as a ridge line, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relatively direct link between target habitat areas.
- Wildlife corridor: a piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

- **Wildlife crossing:** a small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings are typically manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often “choke points” along a movement corridor.

5.6.1 Wildlife Movement within the Study Area

The Study Area may serve a function in local wildlife movement; however, the Study Area was not identified in the MSHCP as a Core Linkage, indicating a lack of importance for regional wildlife movement. Bedford Canyon Wash may provide a linkage for wildlife between the Cleveland National Forest and Lake Matthews. A recent restoration project proposed by the Riverside-Corona Resource Conservation District (RCRCD) for a downstream parcel within the Bedford Canyon Wash would, “Preserve the channel/floodplain location which historically functioned as part of a regionally significant east- west wildlife corridor,” suggesting that this corridor provides a valuable linkage. Bedford Canyon Wash will not be impacted as part of the proposed project and continue to provide the opportunity for wildlife movement.

5.7 Jurisdictional Areas

5.7.1 Waters of the United States

This section relies on the term “Waters of the United States” as it applies to the jurisdictional limits under the authority of the Army Corps of Engineers under the Clean Water Act and applies to the jurisdiction of the Regional Water Quality Control Board under the Porter-Cologne Water Quality Act. Based on the methodology described in Section 4.4, both literature/data base review and a field delineation were conducted to determine the presence of Waters of the United States.

The only jurisdictional feature located on the Project Site is Bedford Canyon Wash, which is presented in Table 2 and shown on Figure 6.

As part of the implementation of the Arantine Hill Specific Plan, Bedford Canyon Wash has been widened and restored, including the placement of rip-rap bank protection, grade control structures, concrete crossings, and access ramps. Specifically, the portion of Bedford Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protection, and a concrete Wash crossing that includes grade stabilization. Jurisdictional Waters of the U.S. extend from invert to invert.

Table 2. Jurisdictional Waters of the United States within the Project site

Drainage	Total Acreage
Bedford Canyon Wash	0.10 ¹
¹ . Consists of non-wetland jurisdictional features.	

5.7.2 Waters of the State

The Project site includes Waters of the State that meet CDFW characteristics in accordance with FGC Section 1600 (Brady and Vyverberg 2013). The only Waters of the State jurisdictional feature located on the Project Site is Bedford Canyon Wash due to the presence of biological and physical characteristics of a stream subject to the Jurisdiction of CDFW under FGC §1600 et seq. The Wash exhibits biological and physical indicators of Waters of the State through the presence of channel bed and bank. The total inventory of Waters of the State is presented in Table 3 and shown on Figure 6.

As part of the implementation of the Arantine Hill Specific Plan, Bedford Canyon Wash has been widened and restored. Specifically, the portion of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protection, and the concrete Wash crossing. Jurisdictional Waters of the State extend from top of bank to top of bank.

Table 3. Jurisdictional Waters of the State within the Project Site

Drainage	Total Acreage
Bedford Canyon Wash	0.20 ¹
¹ . Widened and Restored Wash.	

5.7.3 MSHCP Riparian/Riverine and Vernal Pool Assessment

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

The MSHCP defines riparian/riverine areas as:

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

The MSHCP defines vernal pools as:

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

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

The total inventory of MSHCP Riparian and Riverine is presented in Table 4 and shown on Figure 7. The Project site contains no vernal pools or depressions as defined under MSHCP vernal pool features.

As part of the implementation of the Arantine Hill Specific Plan, the acreage identified as Riparian/Riverine Habitat includes the widened and restored Bedford Wash. Specifically, the portion of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protection and a concrete Wash crossing that includes grade stabilization.

Table 4. Riparian/Riverine Habitat

Community Type	Acreage Onsite
Riparian/Riverine	0.20 ¹
<i>1. Widened and Restored Wash.</i>	

5.8 MSHCP Assessment

The Project is located within the Temescal Canyon Area Plan of the MSHCP. The Project site is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits. Furthermore, the Project site is not located in survey areas for Amphibians, Mammals, or Special Linkage areas. The Project site is located within the Narrow Endemic Plants Overlay (Survey Area Number 7) pursuant to MSHCP Section 6.1.3 and Western Burrowing Owl overlay pursuant to MSHCP Section 6.3.2. The Project site was surveyed and assessed for the following:

- Riparian and Riverine Areas (Section 6.1.2)
- Narrow Endemic Plants - Survey Area Number 7 (Section 6.1.3)
- Western Burrowing Owl Survey Area (Section 6.3.2)

Thus, a separate Consistency Assessment has been prepared pursuant to those sections.

5.9 Soils Mapping

The United States Department of Agriculture Natural Resources Conservation Service lists four soil types (series) for the Project Site (Figure 8). The following soil types are located on the Project site and described below.

AkC: Arbuckle loam, 2 to 8 percent slopes

Soils of the Arbuckle series consist of well-drained soils and have slopes of 2 to 25 percent. These soils occur on alluvial fans and developed in alluvium from metasedimentary rocks. Arbuckle soils are not designated as a sensitive soil type by the MSHCP.

AIC: Arbuckle gravelly loam, 2 to 8 percent slopes

Soils of the Arbuckle series consist of well-drained soils and have slopes of 2 to 25 percent. These soils occur on alluvial fans and developed in alluvium from metasedimentary rocks. Arbuckle soils are not designated as a sensitive soil type by the MSHCP.

AID: Arbuckle gravelly loam, 8 to 15 percent slopes

Soils of the Arbuckle series consist of well-drained soils and have slopes of 2 to 25 percent. These soils occur on alluvial fans and developed in alluvium from metasedimentary rocks. Arbuckle soils are not designated as a sensitive soil type by the MSHCP.

CmC: Cortina cobbly loamy sand, 2 to 8 percent slopes

The Cortina series consists of somewhat excessively drained and excessively drained soils on alluvial fans and in valley fills. These soils formed in alluvium from metasedimentary rocks. Cortina soils are not designated as a sensitive soil type by the MSHCP.

GdC: Garretson gravelly very fine sandy loam, 2 to 8 percent slope

The Garretson series consists of well-drained soils on alluvial fans. These soils formed in alluvium made up chiefly of metasedimentary materials. Garretson soils are not designated as a sensitive soil type by the MSHCP. Garretson soils are mapped within the several areas within the Project Study Area.

SuF2: Soper cobbly loam, 25 to 50 percent slopes, eroded

The Soper series consists of moderately deep well drained soils that formed in material weathered from conglomerate and sandstone. Soper soils are on hills and uplands and have slopes of 15 to 50 percent. The mean annual precipitation is about 18 inches and the mean annual air temperature is about 60 degrees Fahrenheit. These soils are mapped in the southern most portion of the Project Boundary.

TeG: Terrace Escarpments

Terrace escarpments consist of variable alluvium on terraces and barrancas. Small areas of recently deposited alluvium may be near the bottom of the escarpments. This land is unaltered alluvial outwash derived from granite, gabbro, metamorphosed sandstone, sandstone, or mica schist. Terrace escarpments are not designated as a sensitive soil type by the MSHCP.

6.0 Project Impacts

This section discusses potential impacts to biological resources that could result from Project implementation. Biological resources may be either directly or indirectly impacted by a Project. Direct and indirect impacts may be either permanent or temporary in nature. These impact categories are defined below.

- **Direct impact:** any loss, alteration, disturbance or destruction of biological resources that would result from project-related activities is a direct impact. Examples include vegetation clearing, encroaching into wetlands, diverting natural surface water flows, and the loss of individual species and/or their habitats. Direct permanent impacts resulting from Project implementation consist of any ground-disturbing activities (i.e., vegetation removal, grading, paving, building of structures, installing landscaping, creating the fuel modification zone, etc.).
- **Indirect impact:** as a result of Project-related activities, biological resources may also be affected in a manner that is not direct. Examples of indirect impacts include elevated noise, light, and dust levels, increased human activity, decreased water quality, erosion created by the removal of vegetation, and the introduction of invasive plants and unnatural predators (e.g. domestic cats and dogs). These indirect impacts may be both short term and long term in their extent.
- **Permanent impacts:** all impacts that result in the long-term or irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent road on an area containing biological resources.
- **Temporary impacts:** any impacts considered to have reversible effects on biological resources can be viewed as temporary. Examples include the generation of fugitive dust during grading or removing vegetation and either allowing the natural vegetation to recolonize or actively revegetating the impact area.

Under each section, potential impacts are discussed.

6.1 Impacts to Vegetation Communities/Habitats

Impacts are provided for both alternative methods regarding importing dirt to the site. Calculations were based on the currently proposed development design in combination with the vegetation map from the field survey and aerial imagery.

Indirect temporary impacts to plant communities include the effects of fugitive dust created by grading activities, vehicle construction traffic, or offsite discharge of surface water runoff with its associated erosion and sedimentation. Grading-related dust could settle on plant surfaces and indirectly inhibit metabolic processes such as photosynthesis and respiration. Grading-related

erosion, runoff, sedimentation, soil compaction, and alteration of drainage patterns may affect plants by altering site conditions so that the location in which they are growing becomes unfavorable. Another example of indirect impacts includes the introduction and spread of invasive, exotic plants which could result in permanent indirect impacts to adjacent native plant communities.

6.1.1 Total Project Impacts with Alternative 1: Off-site Dirt Import

Figure 9 and Table 5 describe and list the approximate total acreages of vegetation communities that will be permanently and temporary impacted by Project activities should Alternative 1 be implemented.

Table 5. Alternative 1: Off-site Dirt Import – On-Site Vegetation Community Impacts¹

Vegetation Community	Existing Vegetation onsite (acres)	Total Permanent Impacts (acres)	Total Temporary Impacts (acres)	Avoided (acres)
Riversidian Sage Scrub/Chaparral	0.15	0.00	0.00	0.15
Widened and Restored Bedford Canyon Wash ²	0.20	0.01	0.00	0.19
Ruderal	15.14	14.32	0.00	0.82
Disturbed/Developed	2.28	2.00	0.00	0.28
TOTAL	17.77	16.33	0.00	1.44

Notes:

1. Acreages presented in the table represent those found within the Project Boundary. The surrounding 500-foot buffer consists primarily of developed/disturbed vegetation community including; Interstate-15, Eagle Glen Road, graded and disturbed land within the Arantine Hills Project.

2. Included within the Arantine Hills Project, Widened and Restored Wash design. Specifically, the portions of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protection, and concrete Wash crossing.

Direct impacts to 16.33 acres on the Project site are not considered significant because the habitats are common in the Project Vicinity and have minimal habitat value. Furthermore, these impacts do not represent CNDDDB, State, or MSHCP sensitive plant communities. In addition, many of these areas within the Study Area exhibit a moderate or high level of disturbance.

Of the total 16.33 acres impacted onsite, the 0.01 acre of impacts to Bedford Canyon Wash would occur within an area that was previously disturbed through authorization of Regulatory Permits for the widening and restoration of Bedford Canyon Wash and does not contain native vegetation. Therefore, no new impacts to jurisdictional waters would occur and no additional Regulatory Permits are required.

No direct impacts are expected to occur within the surrounding buffer area. Indirect impacts to the surrounding 500-foot buffer area could occur from construction activities, however impacts would be less than significant because no sensitive habitat or sensitive species are located within the Buffer Area, the habitats are common in the Project Vicinity; the area consists of

disturbed/developed vegetation communities; and construction BMP’s such as compliance with air quality regulations would require frequent watering during construction activities to minimize dust.

6.1.2 Total Project Impacts with Alternative 2: PA 14 Dirt Import

Figure 10 and Table 6 describe and list the approximate total acreages of vegetation communities that will be permanently and temporary impacted by Project activities should Alternative 2 for importing dirt be implemented.

Table 6. Alternative 2: PA 14 Dirt Import – On-Site Vegetation Community Impacts¹

Vegetation Community	Existing Vegetation onsite (acres)	Total Permanent Impacts (acres)	Total Temporary Impacts ³ (acres)	Avoided (acres)
Riversidian Sage Scrub/Chaparral	0.15	0.00	0.10	0.05
Widened and Restored Bedford Canyon Wash ²	0.20	0.01	0.09 ⁴	0.10
Ruderal	15.14	14.86	0.00	0.28
Disturbed/Developed	2.28	2.05	0.00	0.23
TOTAL	17.77	16.92	0.19³	0.66

Notes:

1. Acreages presented in the table represent those found within the Project Boundary. The surrounding 500-foot buffer consists primarily of developed/disturbed vegetation community including; Interstate-15, Eagle Glen Road, graded and disturbed land within the Arantine Hills Project.
2. Included within the Arantine Hills Project, Widened and Restored Wash design. Specifically, the portions of the Widened and Restored Wash within the Project Boundary includes concrete ramps entering and exiting the Wash, buried riprap slope protection, and concrete Wash crossing.
3. Temporary impacts are due to the access ramp from PA 14 to the commercial site, which is to be constructed during grading operations. Following the completion of the grading operations the temporary dirt ramp would be removed and the bluff will be reconstructed and replanted with coastal sage scrub mix.
4. The 0.09 acres of temporary impacts to the Widened and Restored Bedford Canyon Wash occur completely within the limits of the existing concrete pad crossing and do not impact native or seeded habitat.

Of the total 16.92 acres impacted onsite, direct impacts to 16.91 acres are not considered significant because the habitats are common in the Project Vicinity and have minimal habitat value. Furthermore, these impacts do not represent CNDDDB, State, or MSHCP sensitive plant communities. In addition, many of these areas within the Study Area exhibit a moderate or high level of disturbance.

Temporary impacts would occur to 0.19 acres. These impacts are due to the construction of an access ramp leading down to the existing concrete crossing of Bedford Canyon Wash. Grading the access ramp would require creating a notch in the existing bluff with side slopes. Fill, ranging from 5 feet to 10 feet, would be temporarily placed on top of the existing concrete pad crossing Bedford Canyon Wash to both protect the concrete pad and function as a ramp to gain elevation.

Careful grading operations and BMPs would avoid dirt spoils in Bedford Canyon Wash. Import operation would need to take place during the dry season, however, temporary pipe culverts

would be placed on top of the concrete pad under the dirt ramp in case unexpected monsoonal storms caused Bedford Canyon Wash to flow.

Following completion of the grading operations, the temporary dirt bridge and culverts would be removed from the concrete pad crossing Bedford Canyon Wash and the notch in the bluff for the access ramp would be reconstructed at 2:1 slopes and surface terrace drains would be added to control storm runoff to minimize erosion. The graded slopes would be replanted with a native coastal sage scrub mix.

Of the total 16.92 acres impacted onsite, the 0.01 acre of impacts to Bedford Canyon Wash would occur within an area that was previously disturbed through authorization of Regulatory Permits for the widening and restoration of Bedford Canyon Wash. Therefore, no new impacts to jurisdictional waters would occur and no additional Regulatory Permits are required.

No direct impacts are expected to occur within the surrounding buffer area. Indirect impacts to the surrounding 500-foot buffer area could occur from construction activities, however impacts would be less than significant because no sensitive habitat or sensitive species are located within the Buffer Area, the habitats are common in the Project Vicinity; the area consists of disturbed/developed vegetation communities; and construction BMP's such as compliance with air quality regulations would require frequent watering during construction activities to minimize dust.

6.2 Potential Impacts to Special Status Plants

As concluded in Section 5.2 above, no special status plant species were observed during the 2019 surveys and none are expected to occur onsite due to the lack of suitable habitat found on the Project site; therefore, for either dirt import alternative there are no potential impacts to special status plants due to Project implementation.

6.3 Potential Impacts to Critical Habitat

As concluded in Section 5.3 above, the Project site does not contain a designated Critical Habitat overlay. The closest designated Critical Habitat is located approximately 0.01 mile south for the CAGN. No designated Critical Habitat is located onsite; therefore, for either dirt import alternative there are no potential impacts to designated Critical Habitat due to Project implementation.

6.4 Potential Impacts to Special Status Wildlife

As shown in Table 7 below, some impacts to avian species protected by the MBTA may occur as a result of Project construction for both dirt import alternatives. If Project construction is scheduled to occur during the typical breeding bird season (January 1 through August 15 for raptors and February 15 through September 15 for all other avian species), short-term noise

effects to birds that may forage or nest onsite may occur. A pre-construction nesting bird survey is required within five (5) days of ground disturbances during typical nesting bird season to delineate any active nests found within the Project site and 300-foot buffer. Should an active nest be observed onsite, a no-work buffer shall occur surrounding the active nest, until determined by the Project Biologist it has become inactive. The implementation of the pre-construction nesting bird survey shall prevent any impacts due to construction-related noise levels on species covered under the MBTA.

Of the total ten special status wildlife identified below, the Project site lacks suitable habitat for eight of the species, therefore, no impacts are expected to occur to the eight special status wildlife species as a result of Project implementation and either dirt import alternatives. It was determined the Project site contains habitat for the California Horned Lark and limited habitat for the red-diamond rattlesnake. Pre-construction nesting bird surveys as outlined above shall occur to prevent any construction-related impacts during the typical nesting bird season. Furthermore, Biological Monitoring during initial ground disturbances shall occur to identify and locate any red-diamond rattlesnake within the Project site. Should any red-diamond rattlesnake species be located within the Project site, construction and earthwork within the area shall cease to allow for the species to vacate or be relocated from the area safely to prevent any impacts by construction-related earthwork on the species.

Table 7. Impact Analysis Summary for Special Status Species

Species	Extent of Impact	Significance of Impact
California Horned Lark MSHCP: Covered Species	Suitable habitat is found within the Project site as a result of the bare spots and developed area as identified within Section 5.4.	Less than significant impact with pre-construction surveys. No species were observed on site during surveys and this species does not occupy sensitive habitat. Pre-construction surveys would ensure no direct impacts during vegetation removal.
Coastal California gnatcatcher MSHCP: Covered Species	Suitable habitat is not found on the Project site as identified within Section 5.4.	No Impact due to lack of suitable habitat onsite. Not observed during field visit.
Coastal whiptail MSHCP: Covered Species	Suitable habitat is not found on the Project site as identified within Section 5.4.	No Impact due to lack of suitable habitat onsite. Not observed during field visit.

Species	Extent of Impact	Significance of Impact
Coastal Horned Lizard MSHCP: Covered Species	Suitable habitat is not found on the Project site as identified within Section 5.4.	No Impact due to lack of suitable habitat onsite. Not observed during field visit.
Least Bell's Vireo MSHCP: Covered Species	No suitable habitat is found within the Project site as identified within Section 5.4.	No Impact due to lack of suitable habitat onsite. Not observed during field visit.
Orange-throated Whiptail MSHCP: Covered Species	No suitable habitat is found within the Project site as identified within Section 5.4.	No Impact due to lack of suitable habitat onsite. Not observed during field visit.
Red-Diamond Rattlesnake MSHCP: Covered Species	Limited habitat is found onsite due to the bare and disturbed areas with heavy brush found onsite as identified within Section 5.4.	Less than significant impact with Biological Monitoring during initial ground disturbances. No species were observed onsite during surveys. Biological Monitoring during initial ground disturbances would ensure no direct impacts during ground disturbances.
Stephen's Kangaroo Rat MSHCP: Covered Species	No suitable habitat is found within the Project site as identified within Section 5.4.	No Impact due to lack of suitable habitat onsite. Not observed during field visit.
Southern California Rufous-Crowned Sparrow MSHCP: Covered Species	No suitable habitat is found within the Project site as identified within Section 5.4.	No Impact due to lack of suitable habitat onsite. Not observed during field visit.
Western Spadefoot MSHCP: Covered Species	No suitable habitat is found within the Project site as identified within Section 5.4.	No Impact due to lack of suitable habitat onsite. Not observed during field visit.

Project construction could also result in additional short-term impacts including night lighting, littering, and illegal wildlife collections. However, Project compliance with the following BMPs consistent with State and federal laws would reduce the potential for such indirect impacts to below significance:

- All temporary construction-related night lighting used in onsite development areas will be shielded and/or directed downward to avoid indirect impacts to nocturnal wildlife such that night lighting could increase predation rates.
- All construction contractors, subcontractors, and employees will comply with the litter and pollution laws and will institute a litter control/removal program during the course of construction activities to reduce the attractiveness of the area to opportunistic predators such as coyotes, opossums, and common ravens.
- Active nests (nests with chicks or eggs) cannot be removed or disturbed. Nests may be removed or disturbed by a qualified biologist, if not active.
- Construction employees, contractors, and site visitors will be prohibited from collecting wildlife.

With implementation of the night lighting reduction PDFs via their inclusion in the Project's MMRP, potential indirect long-term impacts to wildlife would be reduced to below significance.

6.5 Potential Impacts to Wildlife Movement

As described earlier, Bedford Canyon Wash may serve a function in local wildlife movement. Bedford Canyon Wash provides connectivity between the Santa Ana Mountains and Lake Matthews. Therefore, Bedford Canyon Wash does provide a connection between large areas of undeveloped land, which may be utilized for wildlife movement. Furthermore, with the widened and restored Bedford Canyon Wash on the Arantine Hills project located upstream, Bedford Canyon Wash corridor will continue to provide a valuable linkage for wildlife. Project implementation will not impact the ability of Bedford Canyon Wash to continue to serve as a movement corridor.

Therefore, no impacts to wildlife movement are anticipated as a result of implementation of the Project and either dirt import alternative.

6.6 Potential Impacts to Jurisdictional Features

Implementation of the Arantine Hills Specific Plan includes the widening, protection, and restoration of Bedford Canyon Wash. To permit those activities, the following Regulatory Permits and MSHCP Consistency Determination were issued:

- U.S. Army Corps of Engineers (Corps File No. SPL-2015-00361-ERS)
- California Department of Fish and Wildlife (Notification No. 1600-2015-0055-R6):
- Regional Water Quality Control Board (SARWQCB Project NO. 332014-24)
- U.S. Fish and Wildlife Service (FWS-WRIV-15B0271-16F0852)

- MSHCP Consistency Determination and Determination of Biologically Equivalent or Superior Preservation (DBESP) (FWS/CDFW-15BO0271-15CPA0281)

The Regulatory Permits and MSHCP Consistency authorized the widening and restoration of Bedford Wash, including certain improvements for flood protection. Buried rip-rap extending down to scour depth was permitted along both sides of the Wash. Grade stabilizing structures were permitted perpendicular to flows. Several stormdrain outlet structures surrounded by a concrete structure were incorporated into the rip-rap lined banks to outlet storm flows from the development area into Bedford Wash. Additionally, two concrete crossings were permitted, at the far upstream and downstream limits within the Arantine Hills Specific Plan. The concrete crossings allow maintenance vehicles to cross the Wash and access the bluff side. Additionally, a future bridge crossing Bedford Wash is authorized by the Regulatory Permits. The Regulatory Permits remain active and Project activities authorized under the permits remain on-going.

The proposed Project has two components that could affect the jurisdictional areas of Bedford Canyon Wash. One component of the Project is a storm drain pipe from the on-site detention basin that must outlet into Bedford Wash. The Project proposes to outlet the storm drain pipe with the same design as other outlets into Bedford Wash, with the pipe outletting through a concrete structure constructed into the rip-rap lined bank of Bedford Wash, which results in approximately 0.01 acre of modification to the rip-rap lined bank of Bedford Wash (Figure 11). For the proposed Project, the outlet structure will be constructed on the downstream concrete crossing, eliminating any impacts to the soft bottom portion of the Wash. Since the outlet structure is located outside of the invert of Bedford Canyon Wash, construction of the outlet structure would occur beyond the jurisdictional limits of Waters of the United States. Furthermore, since the proposed outlet structure is located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits and MSHCP Consistency Determination for the widening and restoration of Bedford Canyon Wash, and those permits remain active, no new impacts to Waters of the State or MSHCP Features would occur and no additional Regulatory Permits are required.

The second component of the Project would only occur if Alternative 2, which includes moving fill dirt from Planning Area 14 to the Project site across Bedford Wash, is implemented. In order to move fill dirt across Bedford Wash, fill would be temporarily placed on top of the existing concrete pad crossing Bedford Canyon Wash to both protect the concrete pad and function as a ramp to gain elevation. A notch would be graded into the plateau to the south of Bedford Wash and scrapers would move dirt across the temporary earthen ramp placed on the existing concrete pad crossing Bedford Wash. The placement of temporary fill on the concrete pad would cover an area of 0.09 acre of Waters of the State/MSHCP Features and 0.06 acres of Waters of the United States, which matches the area of the existing concrete pad crossing (Figure 12). No temporary fill dirt would be placed in the soft-bottom portion of Bedford Wash. Since the proposed ramp is located in an area that consists of existing concrete and was previously disturbed through authorization of Regulatory Permits for the widening and restoration of Bedford Canyon Wash, and those permits remain active, no new impacts to Waters of the State, Waters of the United States, or MSHCP Features would occur and no additional Regulatory Permits are required.

6.7 Potential Impacts to MSHCP Features

As part of Project implementation an outlet will be installed within the buried riprap slope protection of Bedford Canyon Wash. Please refer to the discussion within Section 6.6. Since the proposed outlet structure, and should Alternative 2 be implemented the dirt ramp, are located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits and MSHCP Consistency for the widening and restoration of Bedford Canyon Wash, no new impacts to MSHCP Riparian/Riverine Features would occur.

A separate MSHCP Consistency Analysis Report has been prepared, which analyzes whether project impacts are consistent with MSHCP goals and objectives.

7.0 BMPs/PDFs Incorporated into the Project and MMRP

The Project will comply with the following:

- Work area limits will be defined and respected. All grading areas will have their boundaries clearly flagged or marked before Project implementation and all disturbances will be confined to the flagged areas. All key Project personnel will be instructed that their activities must be confined to locations within the flagged areas. Disturbance beyond the actual grading zone is prohibited without site-specific surveys.
- Cleared or trimmed non-native, exotic vegetation, and woody debris will be disposed of in a legal manner at an approved disposal site.
- Employees, contractors, and site visitors will be prohibited from collecting plants and wildlife.
- Water pollution and erosion control plans will be developed and implemented in accordance with SWPPP requirements.
- Access to construction sites will be via preexisting access routes.
- Construction equipment will be properly maintained; construction employees and contractors will be trained on proper implementation and monitoring of BMPs; and procedures will be implemented to minimize the likelihood of hazardous spills and to control sediment-laden runoff.
- Effective perimeter control BMPs to control discharge of pollutants from the Project site during construction.
- All temporary construction-related night lighting used in onsite development areas will be shielded and/or directed downward to avoid indirect impacts to nocturnal wildlife such that night lighting could increase predation rates.
- All construction contractors, subcontractors, and employees will comply with the litter and pollution laws and will institute a litter control/removal program during the course of construction activities to reduce the attractiveness of the area to opportunistic predators such as coyotes, opossums, and common ravens.
- Active nests (nests with chicks or eggs) cannot be removed or disturbed. Nests may be removed or disturbed by a qualified biologist, if not active.

8.0 Significance Determination and Proposed Mitigation

8.1 Threshold No. 1

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

No special status plant species exist on the Project site. Furthermore, no suitable habitat for the plant species and eight of the wildlife species identified within Table 6 is found within the Project site, and no observations of the species have been made.

It was determined the Study Area contains habitat for the California Horned Lark and limited habitat for the red-diamond rattlesnake. Pre-construction nesting bird surveys as outlined within **MM_BIO-1** shall occur to prevent any construction-related noise impacts during the typical nesting bird season on nesting bird species protected under MBTA. Furthermore, Biological Monitoring shall occur during initial ground disturbances to identify and locate any red-diamond rattlesnake within the Project site as outlined within **MM_BIO-2**. Should any red-diamond rattlesnake species be located within the Project site, construction and earthwork within the area shall cease to allow for the species to vacate the area safely to prevent any impacts by construction-related earthwork on the species.

The Migratory Bird Treaty Act protects nesting activities of both native and non-native bird species. Under the Act it is unlawful to harm, harass, or take a nest. Since removal of vegetation could result in impacts to nesting birds, the following mitigation measure is included to reduce impacts to less than significant.

MM_BIO – 1: The removal of potential nesting bird habitat shall be conducted outside of the nesting season (February 15 to September 15) to the extent feasible. If grading or site disturbance is to occur between February 15 and September 15, a nesting bird survey shall be conducted by a qualified biologist within no more 5 days of scheduled vegetation removal, to determine the presence of nests or nesting birds. If active nests are identified, the biologist would establish buffers around the vegetation (500 feet for raptors and sensitive species, 200 feet for non-raptors/non-sensitive species). All work within these buffers would be halted until the nesting effort is finished (i.e. the juveniles are surviving independent from the nest). The onsite biologist would review and verify compliance with these nesting boundaries and would verify the nesting effort has finished. Work can resume when no other active nests are found. Alternatively, a qualified biologist may determine that construction can be permitted within the buffer areas and would develop a monitoring plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to CDFW for mitigation

monitoring compliance record keeping. If vegetation clearing is not completed within 5 days of a negative survey, the nesting survey must be repeated to confirm the absence of nesting birds.

Red-diamond Rattlesnake is a CDFW species of special concern. Since removal of the heavy brush could result in impacts to the species, the following mitigation measure is included to reduce impacts to less than significant.

MM BIO – 2: A Biological Monitor shall be onsite during the initial ground disturbances to identify and locate any red-diamond rattlesnake within the Project site. Should any red-diamond rattlesnake species be located within the Project site, construction and earthwork within the immediate area of the identified species shall cease to allow for the species to vacate or be relocated from the area safely. Work can resume when the species has vacated the immediate ground disturbances work area.

With the implementation of MM BIO-1 and MM BIO-2, potential impacts to nesting birds and special status wildlife species are reduced to a less than significant level.

8.2 Threshold No. 2

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

As part of both of the alternatives and overall Project implementation an outlet will be installed within the buried riprap slope protection of Bedford Canyon Wash. The apron for the outlet opening occurs at the downstream concrete Wash crossing. Furthermore, for the import of dirt utilizing dirt from Planning Area 14, a temporary dirt bridge and culvert will be placed on the existing concrete pad crossing and removed following grading operation completion. Since the proposed outlet structure (for both alternatives), and dirt ramp (for Alternative 2), are located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits for the widening and restoration of Bedford Canyon Wash, no new impacts to Waters of the State or Waters of the United States would occur and no additional Regulatory Permits are required. The outlet is located within the slope and beyond jurisdiction of Waters of the US. Furthermore, no riparian habitat or sensitive natural communities is identified within this area; therefore, no impacts to riparian habitat or sensitive natural communities would occur and no mitigation is required. Further discussion can be found in Section 6.6.

8.3 Threshold No. 3

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

As part of Project implementation an outlet will be installed within the buried riprap slope protection of Bedford Canyon Wash. The apron for the outlet opening occurs at the downstream concrete Wash crossing. Since the proposed outlet structure is located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits for the widening and restoration of Bedford Canyon Wash, no new impacts to Waters of the State would occur and no additional Regulatory Permits are required. The outlet is located within the slope and beyond jurisdiction of Waters of the US. This area was previously disturbed and outside of the original limits of Bedford Canyon Wash prior to the widened Wash. As a result, no additional permits are required with Project implementation. Furthermore, the Project will not have a substantial adverse effect on federally protected wetlands as define by Section 404, since the minimal impacts are expected to occur within the riprap slope protection; therefore, no impacts to federally protected wetlands as define by Section 404 would occur and no mitigation is required.

8.4 Threshold No. 4

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?

Bedford Canyon Wash may serve a function in local wildlife movement. Bedford Canyon Wash provides connectivity between the Santa Ana Mountains and Lake Matthews and does provide a connection between large areas of undeveloped land, which may be utilized for wildlife movement. Furthermore, with the implementation of the widened and restored Bedford Canyon Wash, it will continue to provide a valuable linkage for wildlife. Project implementation will not impact the ability of Bedford Canyon Wash to continue to serve as a movement corridor. Therefore, no impacts to wildlife movement are anticipated as a result of implementation of the Project.

Since removal of vegetation could result in impacts to nesting birds, **MM BIO-1** shall be implemented to reduce impacts to less than significant.

8.5 Threshold No. 5

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The City does not have any local policies, such as a tree preservation ordinance, that protect biological resources. Therefore, no impacts would occur, and no mitigation is necessary.

8.6 Threshold No. 6

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Project site is located within the MSHCP, specifically within the Temescal Canyon Area Plan. A Project Consistency Analysis has been prepared analyzing the impacts and mitigation measures.

As part of Project implementation an outlet will be installed within the buried riprap slope protection of Bedford Canyon Wash. The apron for the outlet opening occurs at the downstream concrete Wash crossing. Furthermore, as part of Project impacts, the alternative 2 would create a temporary dirt bridge placed on the existing concrete pad crossing and removed following grading operation completion. Since the proposed outlet structure (both import alternatives) and temporary dirt bridge (Alternative 2) are located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits and MSHCP Consistency for the widening and restoration of Bedford Canyon Wash, no new impacts to MSHCP Riparian/Riverine Features would occur.

The Project site falls within Narrow Endemic Plants (Survey Area Number 7). As concluded in Section 6.2 above, no special status plant species were observed during the 2019 surveys and none are expected to occur onsite due to the lack of suitable habitat found on the Project site; therefore, there are no impacts to Narrow Endemic Plants and no conflicts with an approved conservation plan for either dirt import alternatives and Project implementation.

Furthermore, the Project site contains the BUOW overlay. As a result, a series of four focused BUOW survey was conducted per MSHCP Section 6.3.2 and MSHCP protocol Focused Survey Instructions. While potentially suitable habitat exists onsite, no BUOW, suitable burrows, or signs of BUOW were present during the surveys. Complete results can be found within the Focused BUOW Report in Appendix A. Since BUOW are migratory species, **MM BIO – 3** shall be implemented prior to ground disturbance.

MM BIO – 3: Pre-construction presence/absence surveys for burrowing owl within the survey area where suitable habitat is present shall be conducted by a qualified biologist within 30 days of ground disturbing activities. If active burrowing owl burrows are detected during the breeding season, all work within 300 feet of any active burrow will

be halted until that nesting effort is finished. The on-site biologist will review and verify compliance with these boundaries and will verify the nesting effort has finished. Work can resume when no other active burrowing owl burrows nests are found.

If active burrowing owl burrows are detected outside the breeding season or during the breeding season and it is determined nesting activities have not begun, then passive and/or active relocation may be approved following consultation with CDFW. The installation of one-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools when determined to be unoccupied by Project biologist, and back filled to ensure that animals do not re-enter the burrows. Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to CDFW, and the City for mitigation monitoring compliance record keeping.

With the implementation of MM BIO-3, potential impacts to existing MSHCP features are reduced to a less than significant level.

9.0 Cumulative Impacts

Direct impacts may occur to nesting birds, should construction activities and vegetation removal take place during the typical nesting season, regardless of the alternative implemented. However, adherence to the BMPs as outlined in Section 7.0, as well as implementation of MM-Bio 1, and MM-Bio 2 will ensure impacts to special status species or their habitats are minimized thus reducing the Project's contribution to cumulative impacts to less than significant.

As part of both import alternatives, an outlet will be installed within the buried riprap slope protection of Bedford Canyon Wash. The apron for the outlet opening occurs at the downstream concrete Wash crossing. Furthermore, as part of Alternative 2: PA14 Dirt Import, a temporary dirt bridge and culvert will be placed on the existing concrete pad crossing and removed following grading operation completion. Since the proposed outlet structure is located in an area of Bedford Wash that was previously disturbed through authorization of Regulatory Permits and MSHCP Consistency for the widening and restoration of Bedford Canyon Wash, no new impacts to MSHCP Riparian/Riverine Features would occur.

Furthermore, the MSHCP was specifically designed to cover a large geographical area so that it would protect numerous special-status species and sensitive habitats throughout the region. It is the projected cumulative effect of future development that has required the preparation and implementation of the MSHCP to protect multiple habitats and species. Because the MSCHP provides a regional and comprehensive approach to conservation planning, the proposed Project's contribution to cumulative impacts would also be less than significant.

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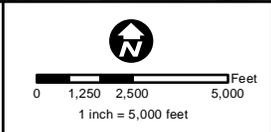
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Figures



Approximate Project Location

GIS Prepared By:
Carlson SLS
Created: August 2, 2019



Data Sources: Bing Maps

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TRILOGY
**Guardian Capital: Bedford Marketplace
Regional Map**

FIGURE 1

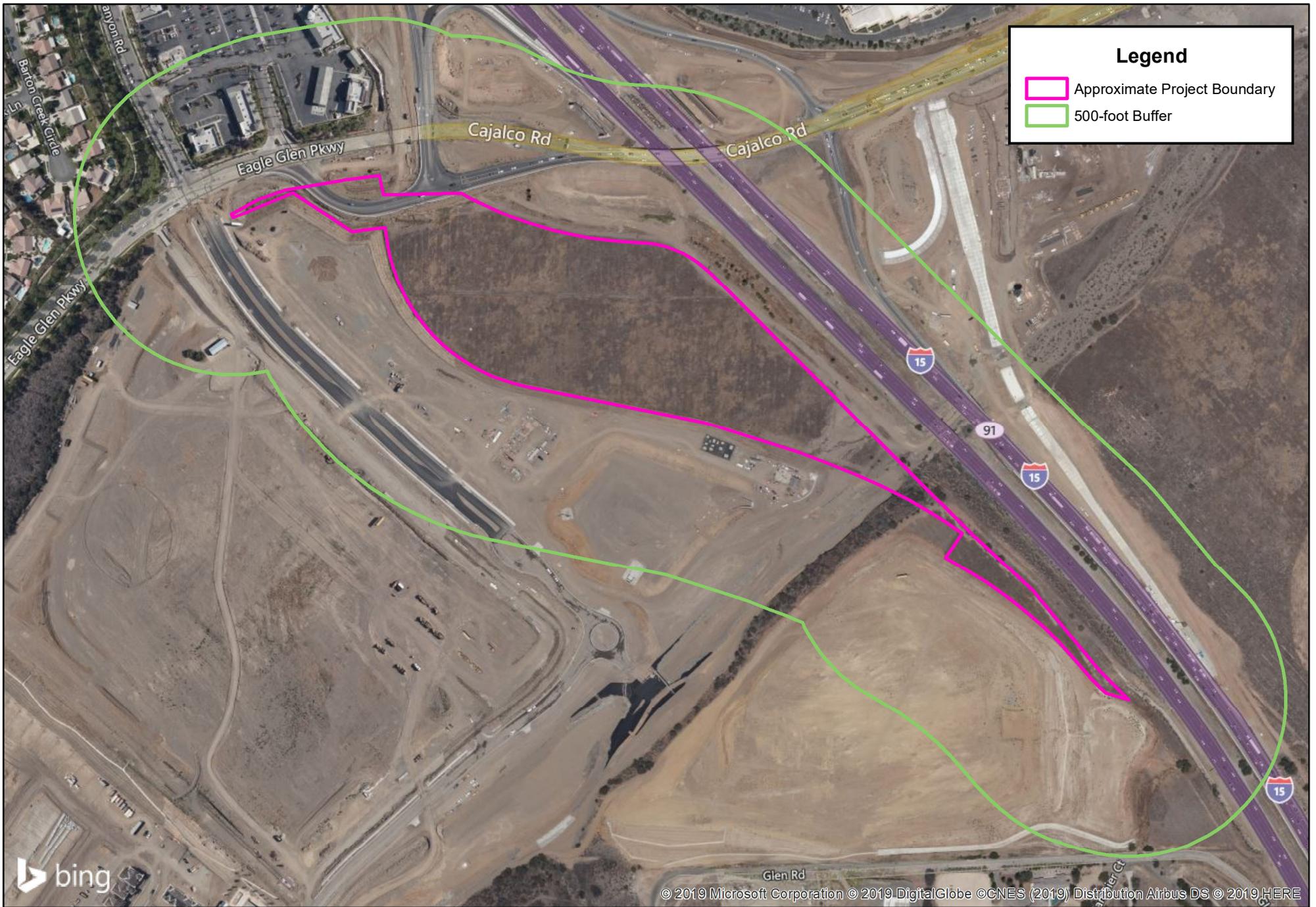
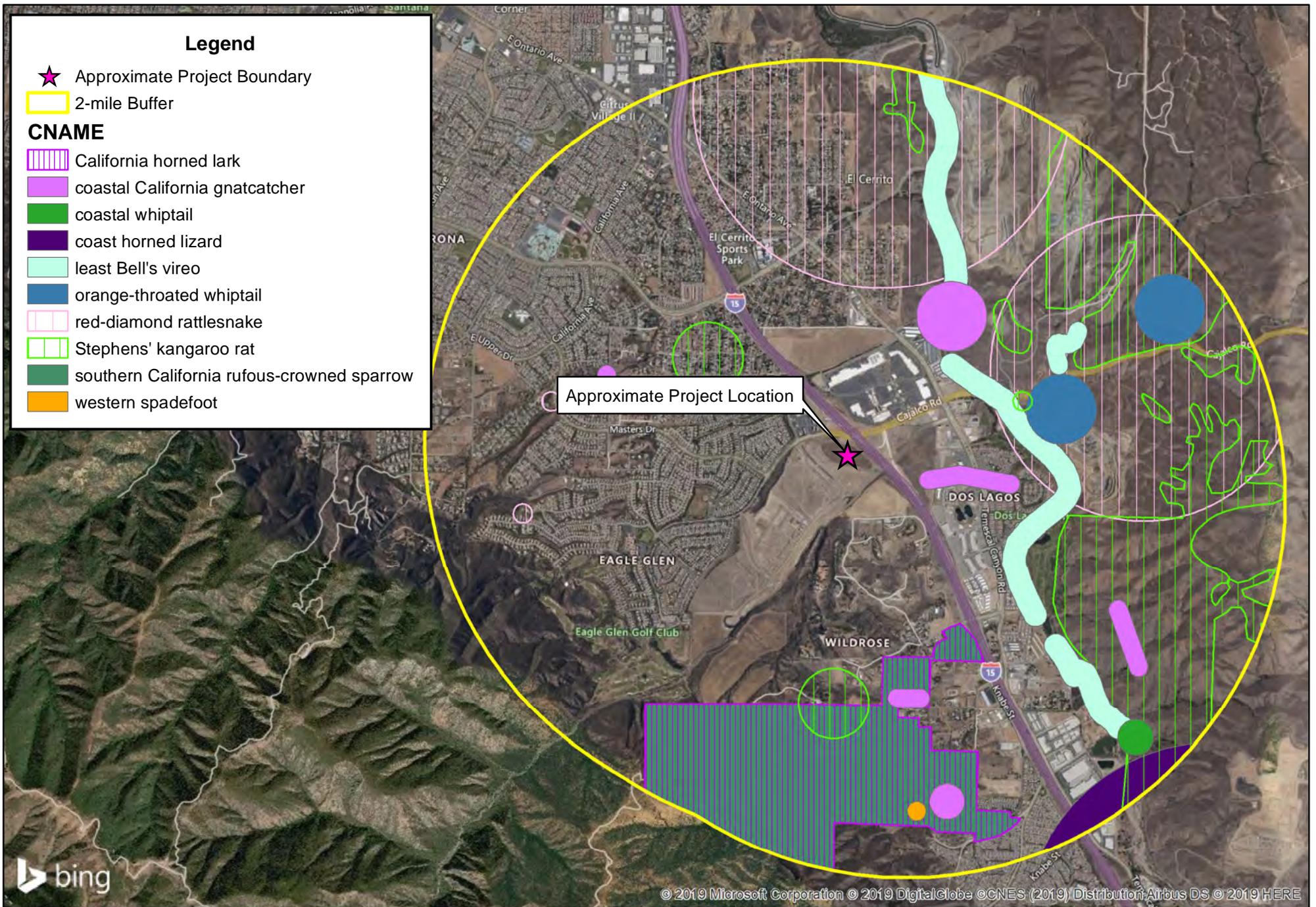
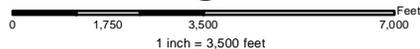


FIGURE 2



GIS Prepared By:
Carlson SLS

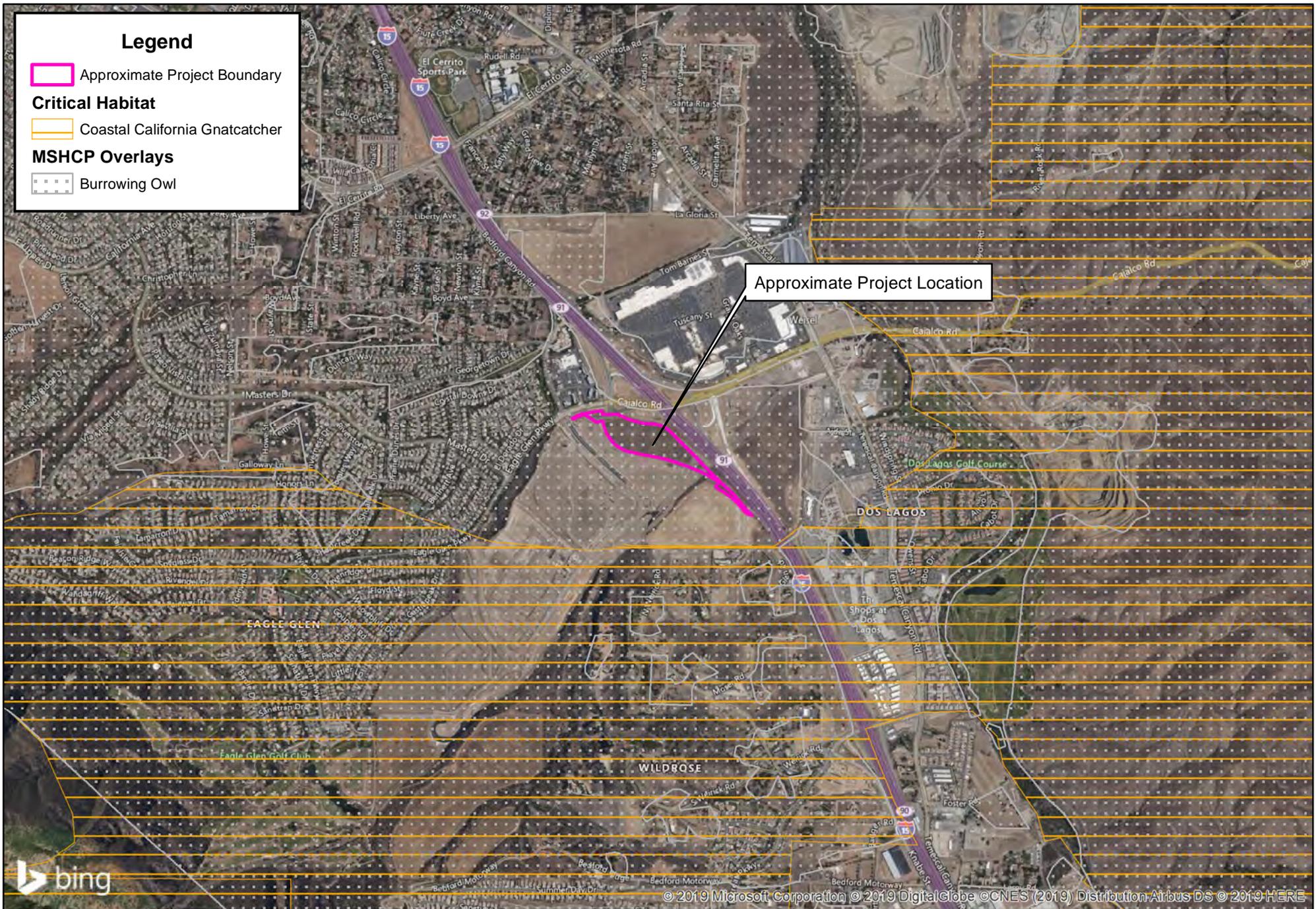
Created: August 2, 2019



Data Source: Bing Maps
CNDDDB (06/2019)

Guardian Capital: Bedford Marketplace
CNDDDB Occurrences Results

FIGURE 3



Legend

- Approximate Project Boundary
- Critical Habitat**
- Coastal California Gnatcatcher
- MSHCP Overlays**
- Burrowing Owl

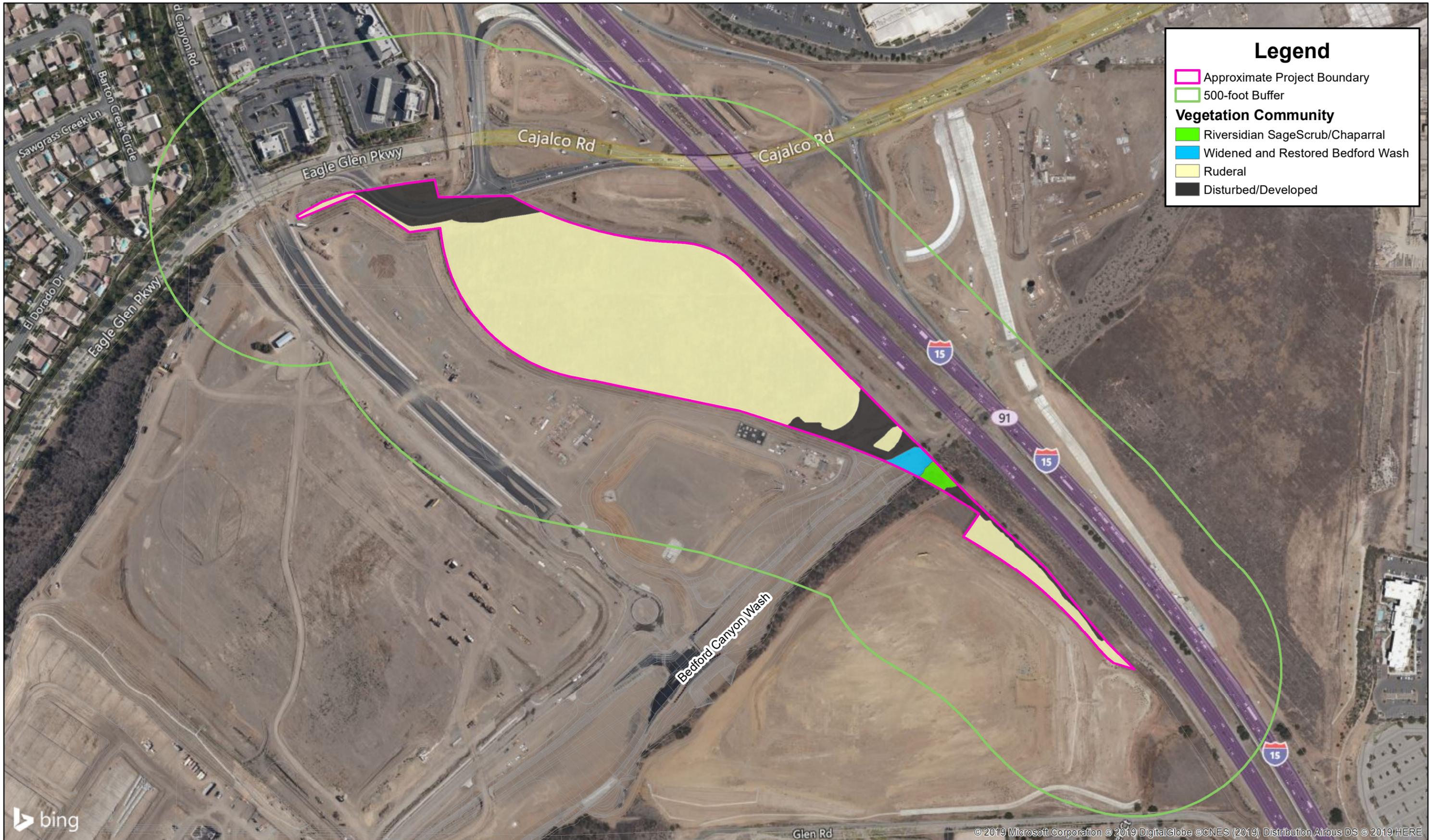
Approximate Project Location



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<p>GIS Prepared By: Carlson SLS</p> <p>Created: August 2, 2019</p>	 <p>1 inch = 2,000 feet</p>	<p>Data Source: Bing Maps CH (03/2015)</p>	<p>Guardian Capital: Bedford Marketplace Critical Habitat and MSHCP Overlay Results</p>
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FIGURE 4



Legend

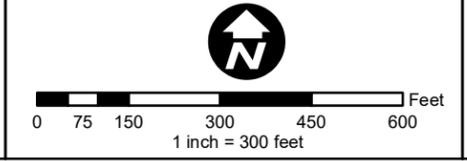
- Approximate Project Boundary
- 500-foot Buffer
- Vegetation Community**
- Riversidian SageScrub/Chaparral
- Widened and Restored Bedford Wash
- Ruderal
- Disturbed/Developed



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GIS Prepared By:
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Created: August 2, 2019

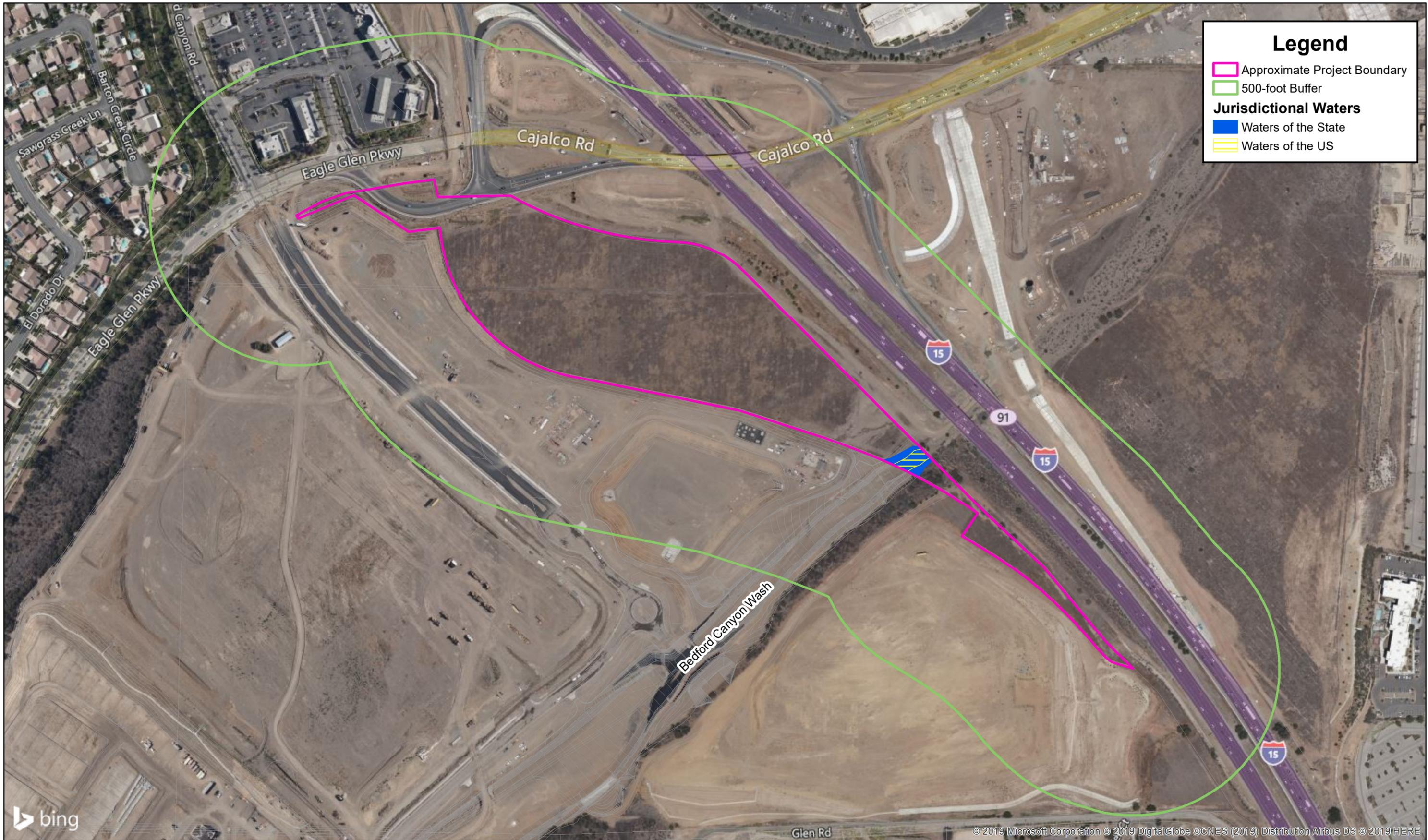


Data Source: Bings Map
Field Visit (06/27/19)

Guardian Capital: Bedford Marketplace

Vegetation Map

FIGURE 5



Legend

- Approximate Project Boundary
- 500-foot Buffer

Jurisdictional Waters

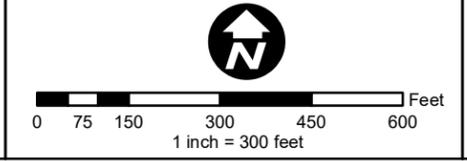
- Waters of the State
- Waters of the US

bing

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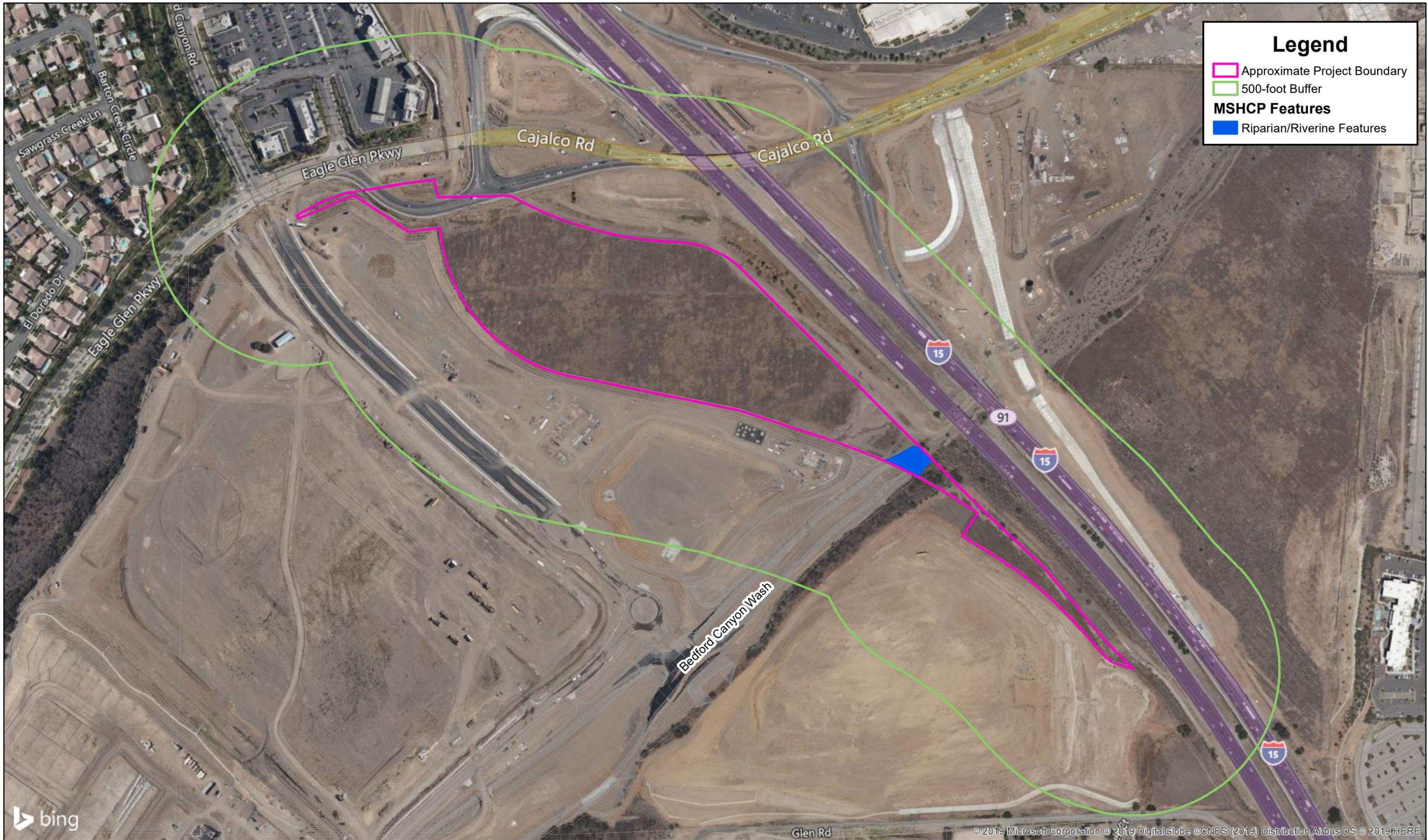


Data Source: Bings Map
Field Visit (06/27/19)

Guardian Capital: Bedford Marketplace

Jurisdictional Delineation

FIGURE 6



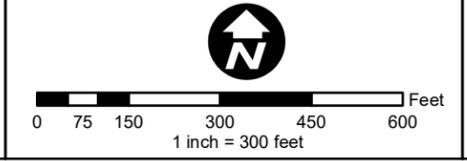
Legend

- Approximate Project Boundary
- 500-foot Buffer
- MSHCP Features**
- Riparian/Riverine Features



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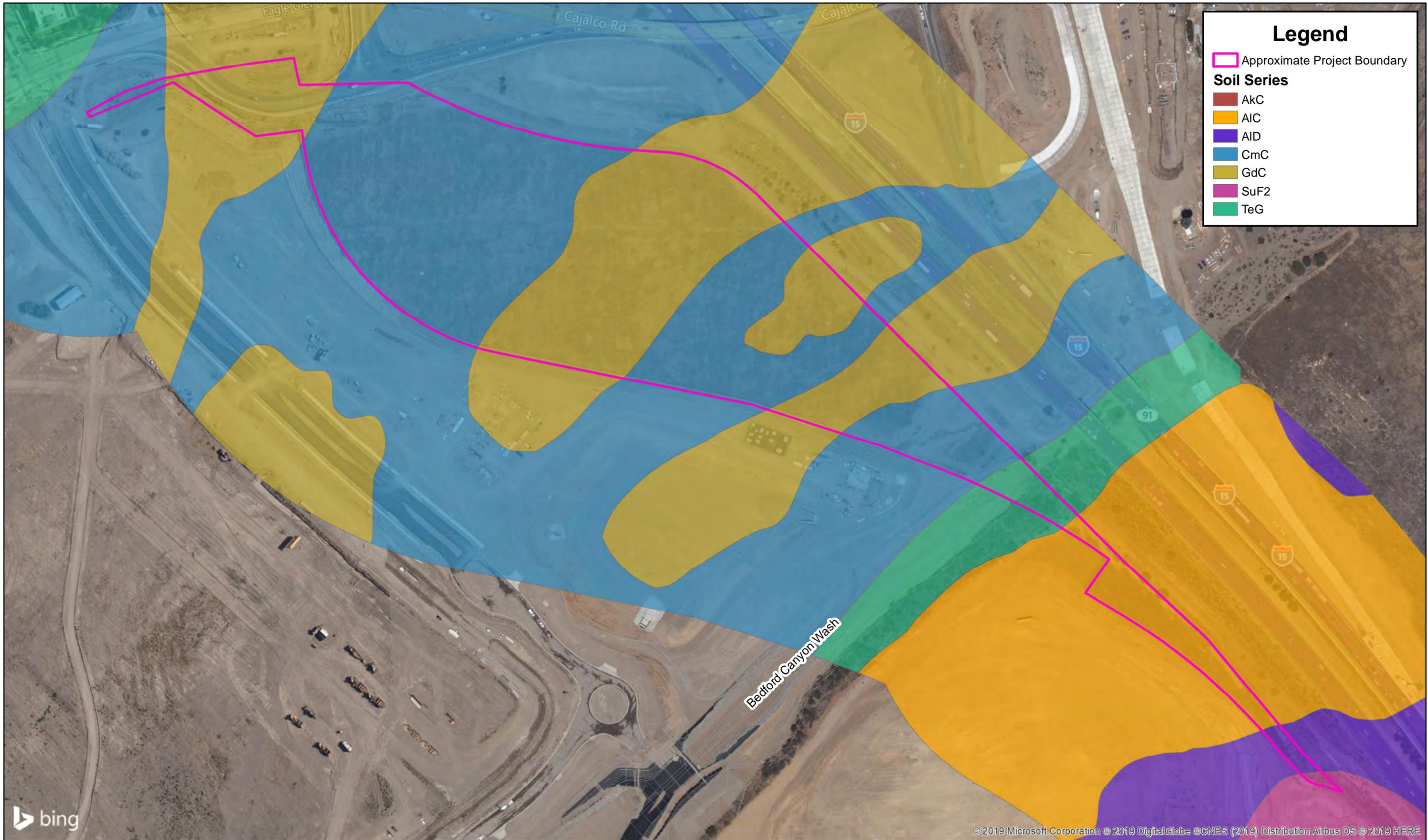
GIS Prepared By:
Carlson SLS
Created: August 2, 2019



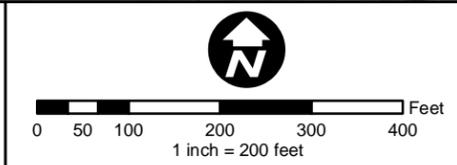
Data Source: Bings Map
Field Visit (06/27/19)

Guardian Capital: Bedford Marketplace
MSHCP Riparian/Riverine Features

FIGURE 7



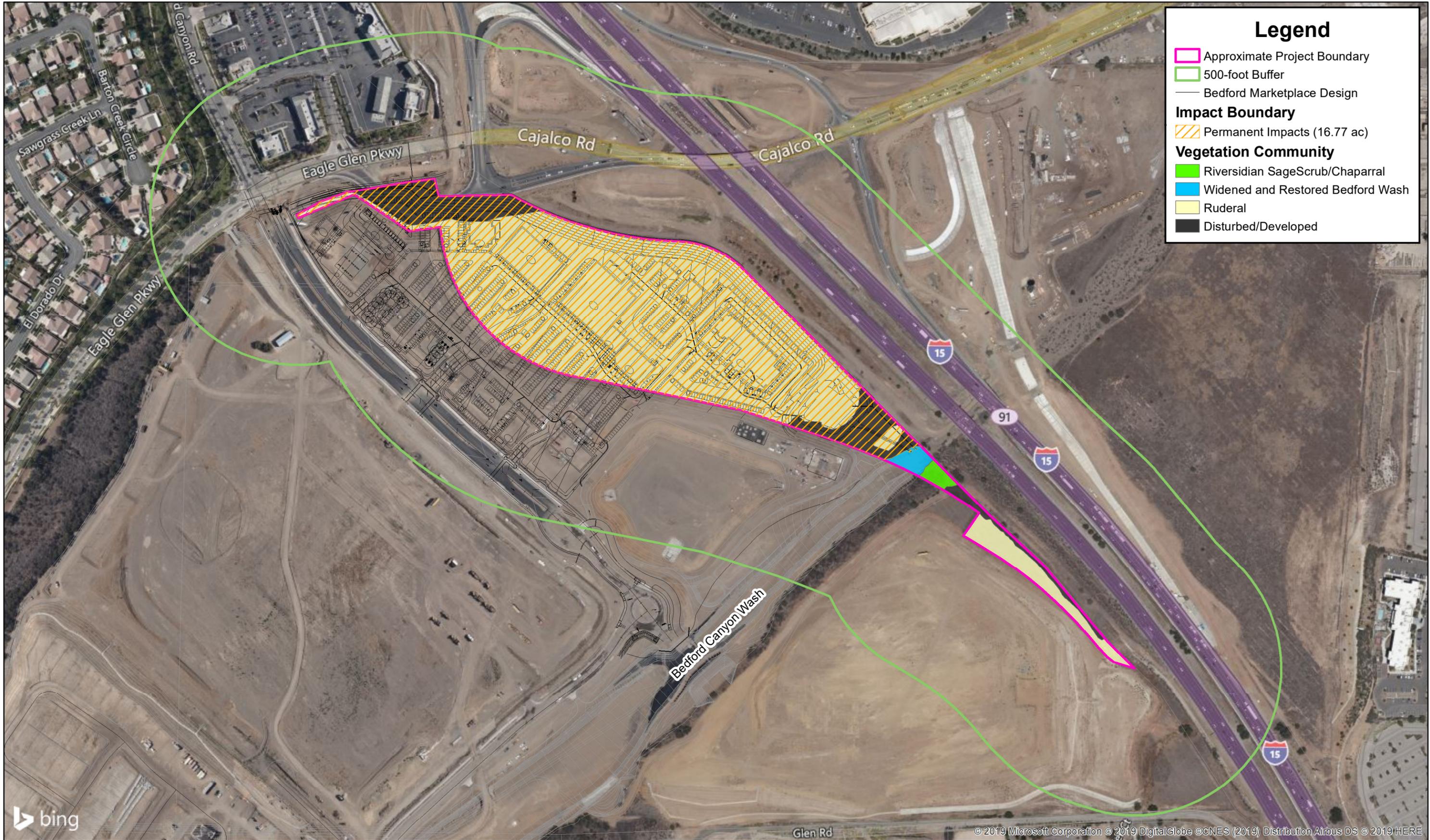
GIS Prepared By:
Carlson SLS
Created: August 2, 2019



Data Source: Bings Map
Field Visit (06/27/19)

Guardian Capital: Bedford Marketplace
Soil Map

FIGURE 8



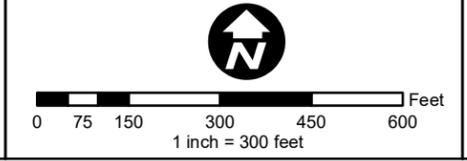
Legend

- Approximate Project Boundary
- 500-foot Buffer
- Bedford Marketplace Design
- Impact Boundary**
- Permanent Impacts (16.77 ac)
- Vegetation Community**
- Riversidian SageScrub/Chaparral
- Widened and Restored Bedford Wash
- Ruderal
- Disturbed/Developed



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GIS Prepared By:
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Created: August 2, 2019

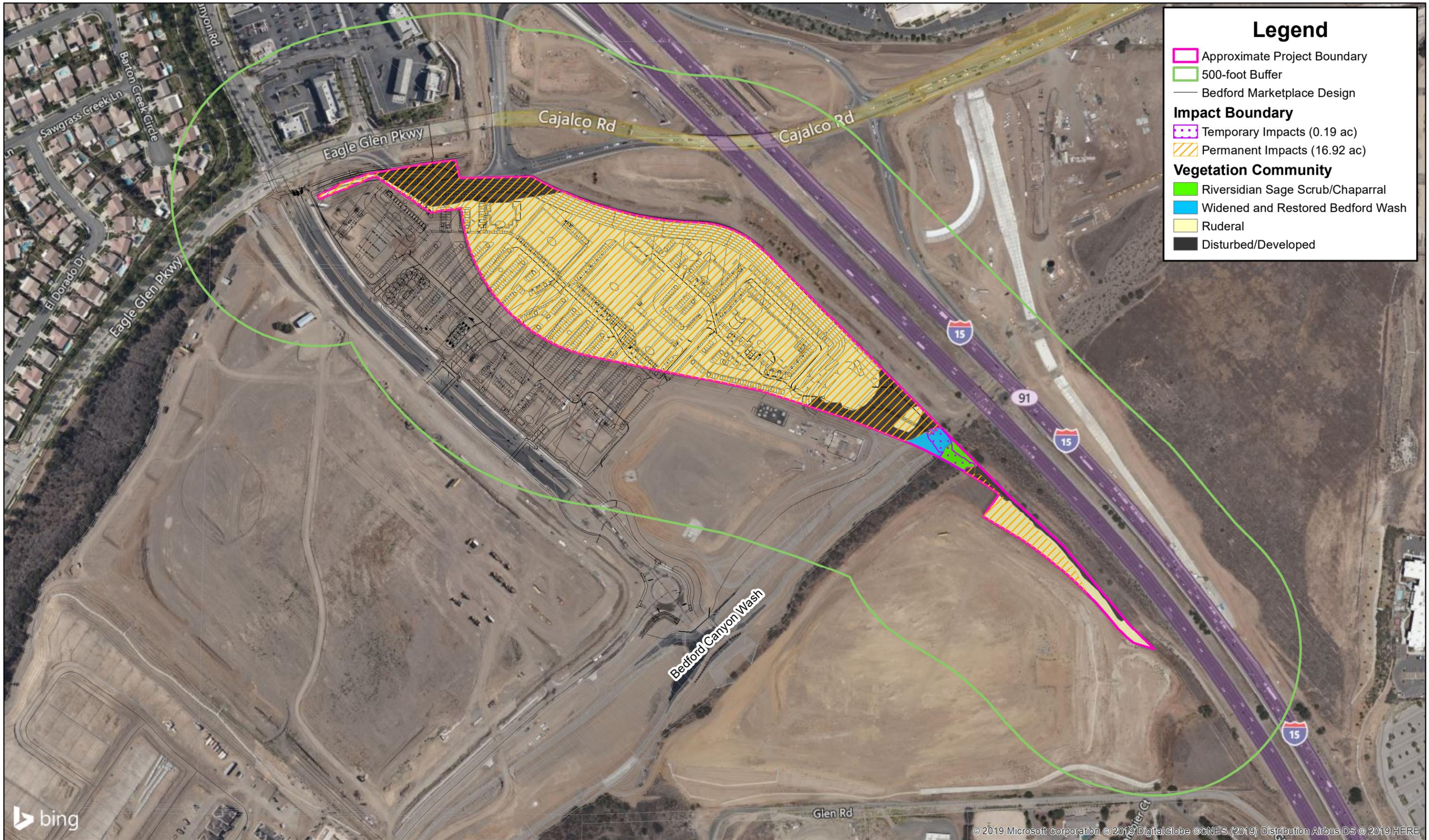


Data Source: Bings Map
Field Visit (06/27/19)
Hunsaker (08/08/19)

Guardian Capital: Bedford Marketplace

Alternative 1: Off-site Dirt Import Vegetation Impacts Map

FIGURE 9



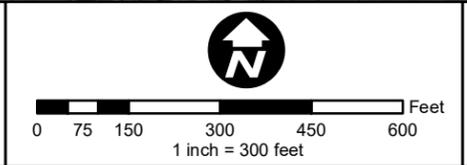
Legend

- Approximate Project Boundary
- 500-foot Buffer
- Bedford Marketplace Design
- Impact Boundary**
- Temporary Impacts (0.19 ac)
- Permanent Impacts (16.92 ac)
- Vegetation Community**
- Riverside Sage Scrub/Chaparral
- Widened and Restored Bedford Wash
- Ruderal
- Disturbed/Developed



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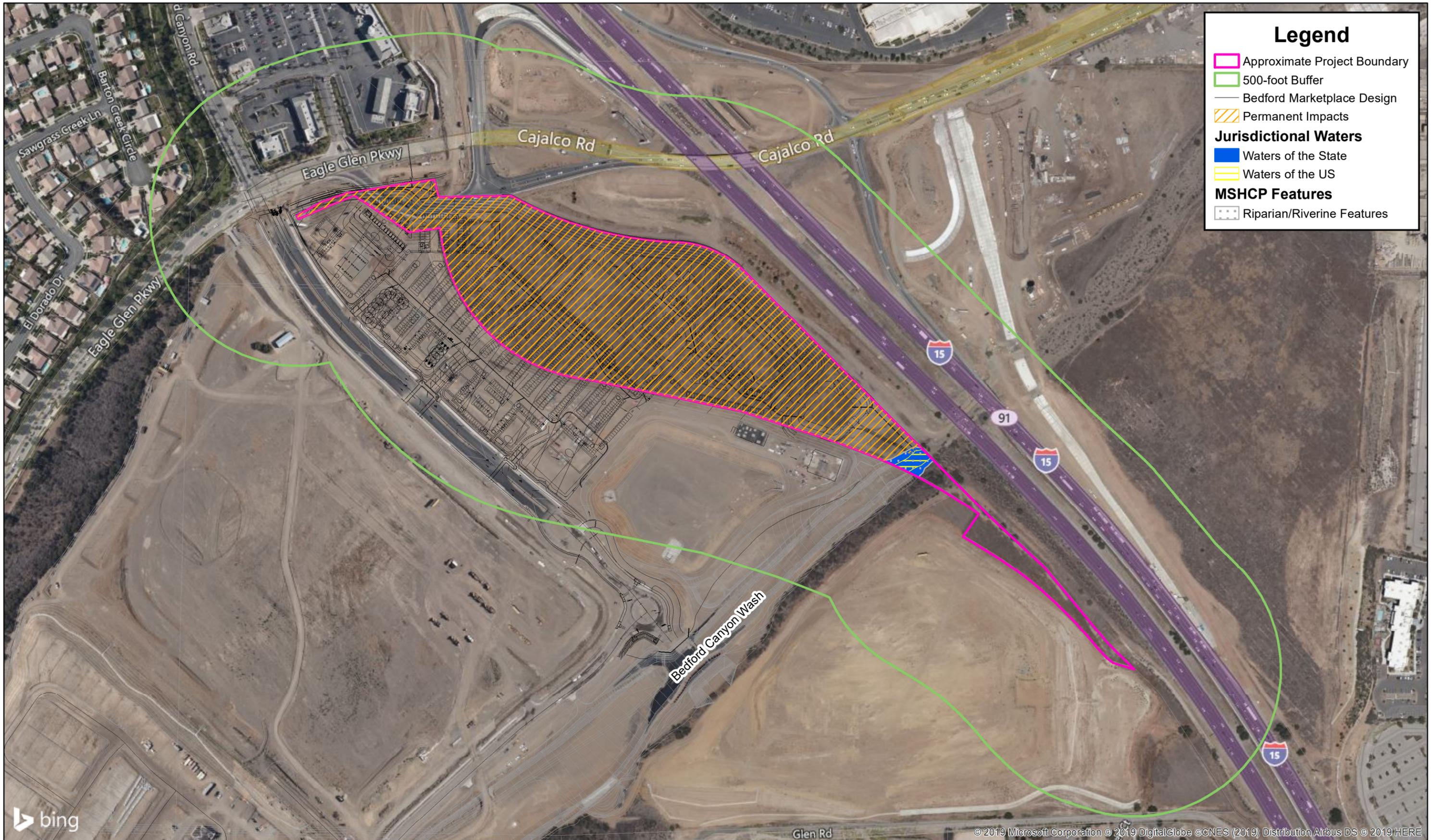
GIS Prepared By:
Carlson SLS
Created: October 7, 2019



Data Source: Bing Map
Field Visit (06/27/19)
Hunsaker (09/05/19)

Guardian Capital: Bedford Marketplace
Alternative 2: PA 14 Dirt Import Vegetation Impacts Map

FIGURE 10



Legend

- Approximate Project Boundary
- 500-foot Buffer
- Bedford Marketplace Design
- Permanent Impacts

Jurisdictional Waters

- Waters of the State
- Waters of the US

MSHCP Features

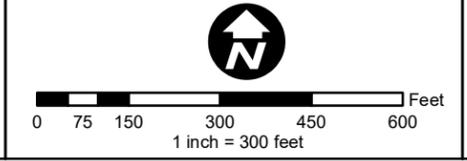
- Riparian/Riverine Features



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Created: August 2, 2019

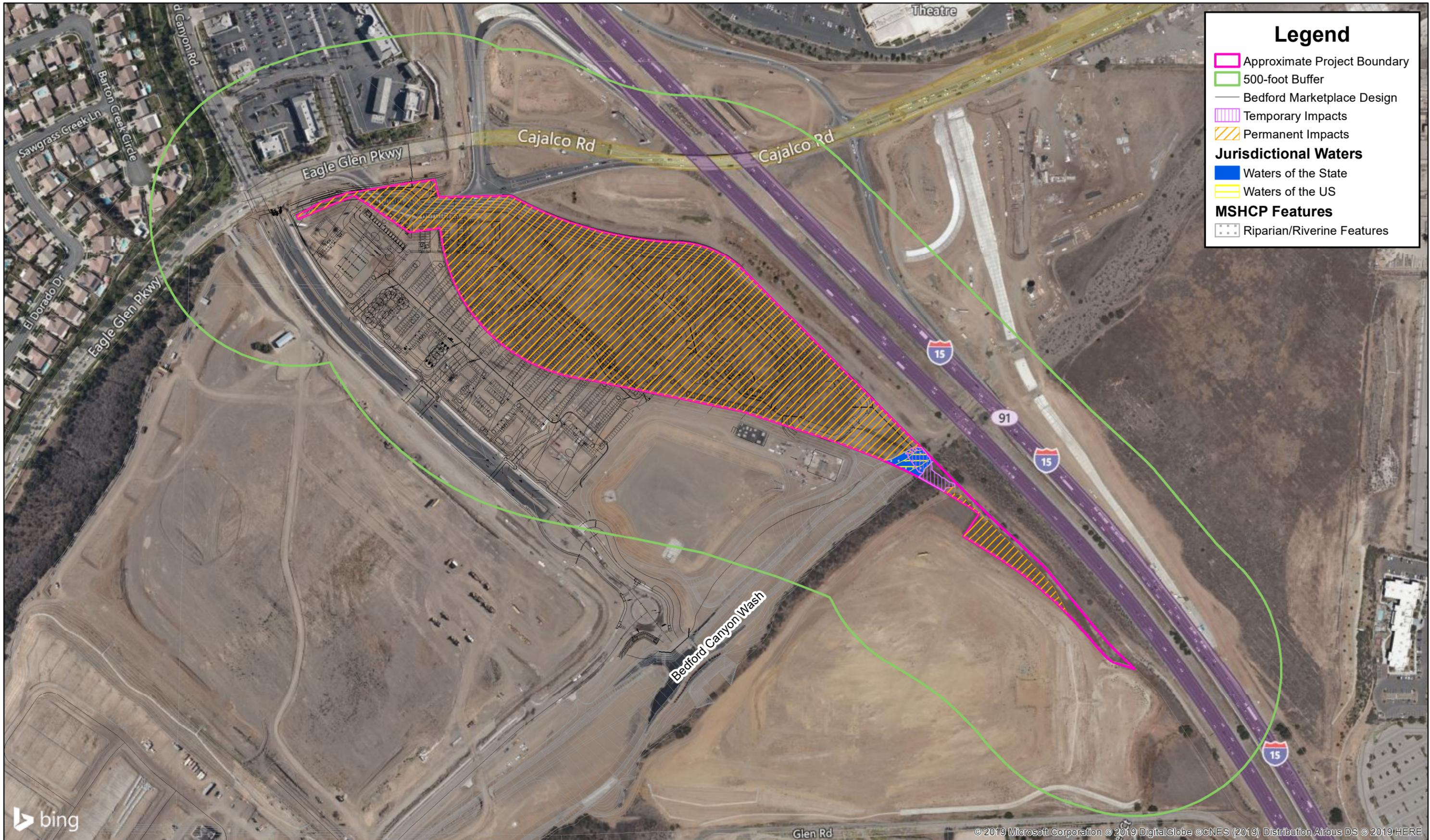


Data Source: Bings Map
Field Visit (06/27/19)
Hunsaker (08/08/19)

Guardian Capital: Bedford Marketplace

Alternative 1: Off-site Dirt Import Jurisdictional and MSHCP Feature Impacts

FIGURE 11



Legend

- Approximate Project Boundary
- 500-foot Buffer
- Bedford Marketplace Design
- Temporary Impacts
- Permanent Impacts

Jurisdictional Waters

- Waters of the State
- Waters of the US

MSHCP Features

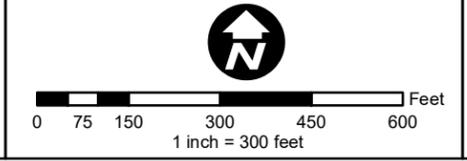
- Riparian/Riverine Features



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GIS Prepared By:
Carlson SLS

Created: October 7, 2019



Data Source: Bings Map
Field Visit (06/27/19)
Hunsaker (09/05/19)

Guardian Capital: Bedford Marketplace

Alternative 2: PA 14 Dirt Import Jurisdictional and MSHCP Feature Impacts

FIGURE 12

APPENDIX A

Focused Survey Results

Results of Focused Burrowing Owl Survey for the Bedford Marketplace Project

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Prepared by:

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August 2019

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APPENDIX

Appendix A	Site Photographs
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ACRONYMS, ABBREVIATIONS, AND GLOSSARY OF TERMS

BUOW	Burrowing Owl
CDFW	California Department of Fish and Wildlife
CNDDDB	California Natural Diversity Database
MSHCP	Western Riverside Multiple Species Habitat Conservation Plan
Project	Bedford Marketplace Project
SLS	Carlson Strategic Land Solutions

1.0 Introduction

On behalf of Bedford Marketplace, LLC (Guardian Capital), Carlson Strategic Land Solutions (SLS) prepared this Focused Burrowing Owl Results Report, which documents the results of the focused protocol Burrowing Owl (*Athene cunicularia* [BUOW]) surveys for the proposed Bedford Marketplace Project (Project). The Project is located on approximately 18-acres in the City of Corona. The Focused BUOW Report incorporates the findings from the focused burrow and BUOW field surveys within the Study, which is comprised of the 18-acre Project site and surround 500-foot buffer. The protocol survey was conducted following the *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area* (County of Riverside 2006). The purpose of the survey was to identify presence or absence of BUOW, suitable burrows and/or burrow surrogates, and any other sign of BUOW within the Study Area.

1.1 Project Terms

The following terms will be used throughout this document and are defined as follows:

- Project site: the approximately 18-acre Bedford Marketplace Project site.
- Study Area: the area evaluated during the field survey, including the approximately 18-acre Project site and the surrounding 500-feet (150-meters).
- Project Vicinity: intended to be a general term to describe the broader area surrounding the Study Area.

1.2 Project Location

The Project Site is located in the Bedford Canyon area of the Santa Ana Mountain foothills in the southeastern portion of Corona. The City of Corona is generally situated southwest of the City of Riverside, south of the City of Norco, and north of the City of Lake Elsinore in Riverside County, California (Figure 1). Areas surrounding the Project Site include the I-15 freeway to the east, Arantine Hills Specific Plan to the south and west; and Cajalco Road to the north (Figure 2). The Project Site is located within the United States Geological Survey (USGS) 7.5-Minute Topographic Map *Corona South* Quadrangle.

The Project Site is owned by the Riverside County Transportation Commission and has Assessor's Parcel Numbers (APN) 279-240-033 and 279-240-019.

Access to the Project site is from the residential project referred to as Bedford, located to the west of the Project site, off Eagle Glen Parkway via Hudson House Drive. Directions to the Project site from Interstate 15 (I-15) is to exit Cajalco Road and head west onto Eagle Glen Parkway. Access is obtained via Hudson House Drive.

1.3 Existing and Historical Land Use

The overall Study Area has historically been farmed for citrus production between 1962 and 2007. Prior to the 1962 aerial photograph, the Project Site was vacant land. The former agricultural operation has reverted to ruderal vegetation. The Project site is located between the new residential community of Bedford within the Arantine Hills Specific Plan (AHSP), which has been graded, and the I-15 freeway, including the Cajalco Interchange, which is currently under construction.

Bedford Canyon Wash, located to the south of the Project Site, is an ephemeral wash with a sandy bottom and sparsely vegetated alluvial fan sage scrub and non-native vegetation. The Wash receives flows from the Santa Ana mountains, through the Eagle Glen Golf Club, through the AHSP area, continuing downstream to Temescal Creek and ultimately the Santa Ana River. As part of implementation of the AHSP, Bedford Wash has been widened and improved with buried rip-rap along the banks and buried grade control structures to control erosion and scour. Two concrete crossings (upstream and downstream) provide access to the south side of the Wash and the associated maintenance access road. Restoration of Bedford Wash includes planting with an alluvial fan sage scrub seed mix.

1.4 MSHCP Survey Requirements for the Burrowing Owl

The Project site is found within the MSHCP BUOW survey area. The BUOW is designated as a “Covered Species Adequately Conserved” under MSHCP, but with specific survey/conservation requirements as described in Volume I, Section 6.3.2 of the MSHCP and species-specific objectives. Pursuant to the MSHCP, if a site occurs within the BUOW survey area, and suitable habitat is present, then focused surveys shall be conducted following the *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area* (County of Riverside 2006). The survey instructions note the following steps to the MSHCP BUOW assessment:

- Step I: Habitat Assessment
- Step II: Locating Burrows and Burrowing Owls
 - » Part A: Focused Burrow Survey
 - » Part B: Focused Burrowing Owl Surveys (a total of 4 separate surveys)

Step I of the survey instructions requires that an assessment be conducted to determine the presence of suitable habitat for the BUOW. The habitat assessment must be conducted by walking the Project site and surrounding 500-foot buffer, where feasible. Habitat for the BUOW is varied and includes short-grass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial open areas. BUOW require large open expanses of sparsely vegetated areas with an abundance of active small mammal burrows. The mammal burrows are often modified and enlarged. For nesting BUOW,

one burrow is typically selected for use; however, satellite burrows are usually found within the immediate vicinity of the nest burrow within the defended territory of the owl.

Pursuant to MSHCP Section 6.3.2 and the methods are used to detect and identify BUOW included observation of key signs identified by the *California Burrowing Owl Consortium (CBOC)*. This includes observation of key signs such as sight, scat, tracks, burrows, nests, and calls. All encountered burrows or structure entrances, suitable or non-suitable, were checked for the presence of BUOWs, molted feathers, cast pellets, prey remains, eggshell fragments, tracks, or excrement at or near a burrow entrance. Natural or man-made structures that could support BUOWs were also surveyed when present.

Once a basis for suitability for BUOW is determined, the presence/absence of suitable burrows is to be determined during Step II of the MSHCP Survey Instructions. Step II surveys must be conducted during breeding season (March 1 through August 31). All surveys are to be conducive to observing owls outside their burrows and detecting BUOW signs. Surveys shall not be conducted during rain, high winds (>20mph), dense fog.

As outlined within Step II of the MSHCP Survey Instructions, Step II is separated into two parts, Part A and Part B. Part A includes the detailed focused burrow survey, which consists of systematic survey for suitable burrows to support BUOW. This includes mammal burrows as well as suitable artificial and/or manmade structures. The pedestrian survey transects were spaced approximately 10 to 15 meters apart to allow 100 percent visual coverage of the ground surface. The locations of suitable habitat, potential owl burrows and key signs should be mapped and recorded.

Part B is only conducted if suitable burrows and habitat is present as identified during Part A.

2.0 Methodology

SLS biologist conducted the initial habitat assessment on June 27, 2019 to determine the locations of suitable habitat. Based on this assessment, it was determined the Project site contained suitable habitat, therefore three (3) additional focused BUOW surveys were conducted on July 8, July 25, and August 1, 2019 pursuant to MSHCP Section 6.3.2, MSHCP Protocol Survey Instructions.

2.1 Focused Burrow Survey

Prior to the field survey, available literature and databases including the California Natural Diversity Database (CNDDDB), were reviewed to identify sensitive habitats and special status wildlife species, including BUOW in the vicinity of the Study Area. Consistent with the MSHCP Survey Instructions, a focused burrow survey was conducted on June 27, 2019 and pedestrian survey transects were spaced approximately 10 to 15 meters apart to allow 100 percent visual coverage of the ground surface.

According to the MSHCP guidelines, the biologist should also walk the perimeter of the property, which consists of a 150-meter (approximately 500 feet) buffer zone around the Project boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars. Parcels of land that could not be accessed (e.g. private property) were viewed using binoculars from vantage points to survey for BUOW activity or signs thereof, as well as other nesting bird activity.

2.2 Focused Burrowing Owl Survey

If no potential suitable BUOW burrows were observed within the Project Study Area or the 150-meter buffer area then Step II Part B, the focused BUOW surveys, are not required per to the BUOW Survey Instructions.

3.0 Results

Step I Habitat Assessment was conducted on June 27, 2019 to determine suitable Habitat. Based on the Habitat Assessment it was determined the Project site contains suitable habitat. Step II, Part A and B of the MSHCP Survey Instructions took place on July 8, July 25, and August 1, 2019. Each of the survey efforts were conducted in the morning between 7:15 a.m. and 11:50 a.m. and were not performed during periods of excessive or abnormal heat, wind, rain, or other inclement weather. Temperatures during the survey ranged between 64° F and 95° F, with predominant sunny, clear skies and 0-2 mph winds. The survey was conducted during typical BUOW peak activity time and was not conducted during rain, high winds (> 20 miles per hour), or dense fog >75%. Prior to the commencement of the survey, SLS biologist scanned the Study Area using binoculars to look for BUOW. The Study Area was assessed for the suitability to support BUOWs and all suitable burrows were inspected for signs of use by BUOWs. The survey involved walking through suitable habitat within the Study Area (the Project site and a 500-foot buffer). Pedestrian survey transects were spaced approximately 10 to 15 meters apart to allow 100 percent visual coverage of the ground surface (Figure 3).

No BUOWs or evidence of BUOWs were observed on site within the Study Area during the focused survey. A majority of the Project site was characterized by actively maintained ruderal fields, lacking necessary sized burrows and dense vegetation cover to provide suitable nesting habitat for BUOW. Much of the 500-foot buffer is developed. California ground squirrels (*Spermophilus beecheyi*) and their burrows were observed within the Study Area. These burrows were actively utilized by the California Squirrels and contained no BUOW or keys signs (sight, whitewash, burrows, bones, feathers, pellets, nests, and calls). Furthermore, the Project site is annually maintained for fire abatement and the property adjacent to the Project site has active construction and grading activities, including the I-15/Cajalco Interchange. Therefore, based on the lack of suitable BUOW burrows, routine maintenance and mowing, and adjacent construction activity, it is determined that the Project site is not occupied by BUOW.

All wildlife species encountered visually or audibly during the field survey were identified and recorded in field notes. Photographs were taken to document existing conditions within the Study Area; photo-pages are attached (Appendix A).

The animal species or signs thereof observed during the SLS survey are listed below:

Birds:

- American crow (*Corvus brachyrhynchos*)
- Anna's hummingbird (*Calypte anna*)
- black phoebe (*Sayornis nigricans*)
- California quail (*Callipepla californica*)
- California towhee (*Melospiza crissalis*)
- house finch (*Haemorhous mexicanus*)
- mourning dove (*Zenaida macroura*)
- red-tailed hawk (*Buteo jamaicensis*)
- song sparrow (*Melospiza melodia*)
- turkey vulture (*Cathartes aura*)
- California Horned Lark (*Eremophila alpestris actia*)
- western scrub jay (*Aphelocoma californica*)

Mammals:

- California ground squirrel (*Spermophilus beecheyi*)
- desert cottontail (*Sylvilagus audubonii*)

Reptiles:

- western fence lizard (*Sceloporus occidentalis*)

4.0 Discussion

While a majority of the Study Area consist of ruderal vegetation, no BUOWs, suitable sized burrows, or key diagnostic signs (i.e., whitewash, pellets, bones, feathers, etc.) of BUOWs were observed within the Study Area. California ground squirrels and their burrows were observed within the Study Area. However, these burrows are actively utilized by California ground squirrels and contained no BUOWs or key diagnostic signs (i.e., whitewash, pellets, bones, feathers, etc.) of BUOWs. Furthermore, the Project site is annually maintained for fire abatement and the property adjacent to the Project site has active construction and grading activities associated with the I-15/Cajalco Interchange. Therefore, based on the lack of suitable BUOW burrows, routine maintenance and mowing, lack of proper vegetation cover, and adjacent construction activities, it is determined the Project site is not occupied by BUOW.

Based on the results of the field survey, the Study Area is not considered to be occupied by BUOWs. However, since the BUOW is a migratory species the Project will be required to conduct

a 30-day pre-construction survey for the BUOW. The following shall take the following measure to avoid impacts to BUOW.

- Pre-construction surveys for BUOW within the survey area where suitable habitat is present shall be conducted by a qualified biologist within 30 days prior to the commencement of ground disturbing activities. If active BUOW burrows are detected during the breeding season, all work within 300 feet of any active burrow will be halted until that nesting effort is finished. The on-site biologist will review and verify compliance with these boundaries and will verify the nesting effort has finished. Work can resume when no other active BUOW burrows nests are found.

If active BUOW burrows are detected outside the breeding season or during the breeding season and its determined nesting activities have not begun, then passive and/or active relocation may be approved following consultation with the City. The installation of one-way doors may be installed as part of a passive relocation program. BUOW burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and back filled to ensure that animals do not re-enter the holes/dens. Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to the City for mitigation monitoring compliance record keeping.

5.0 Certification

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

Signed:  _____

Dated: 08/09/2019

6.0 Literature Cited

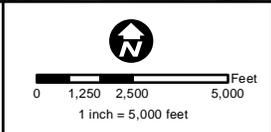
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Figures



Approximate Project Location

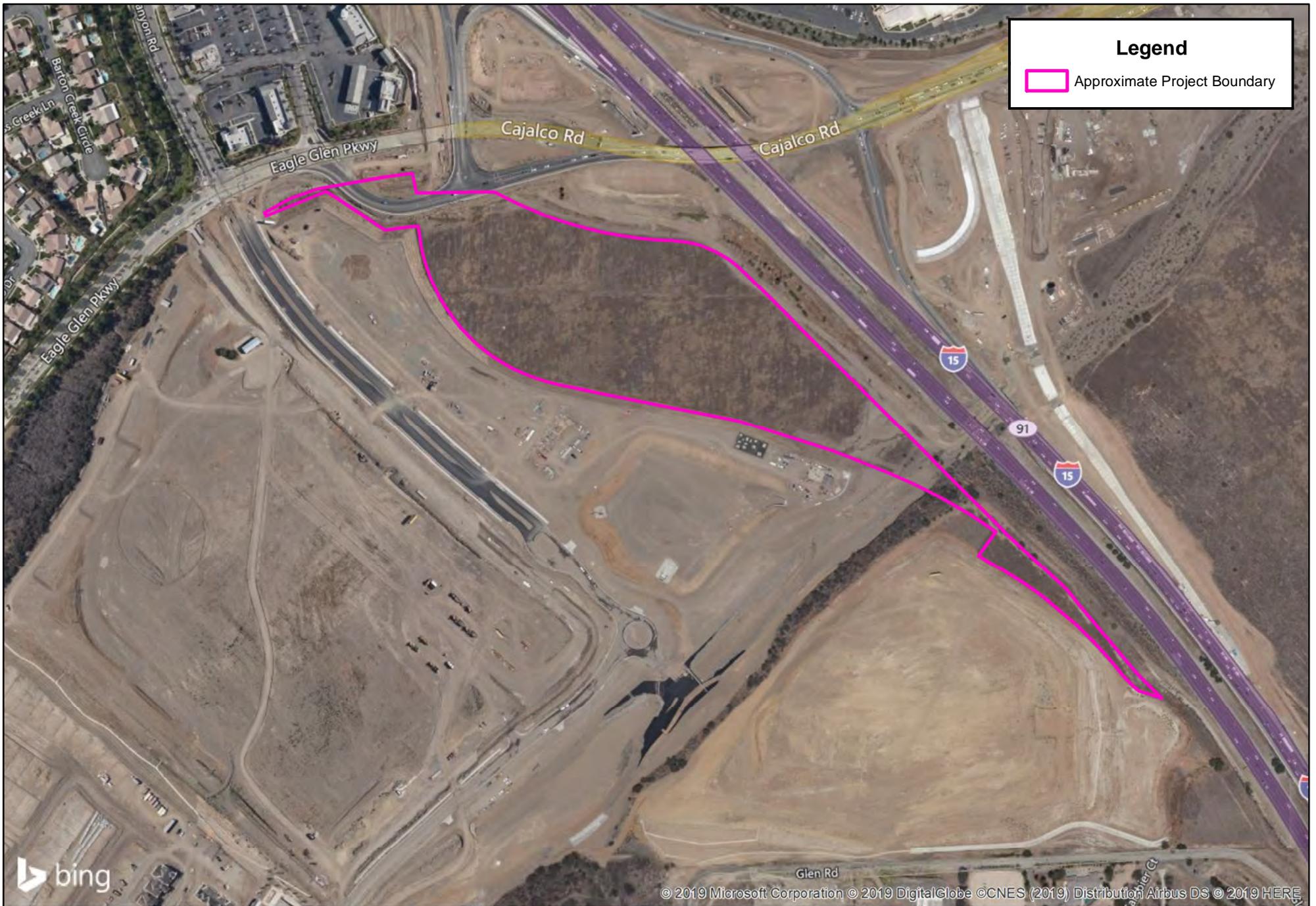
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Carlson SLS
Created: August 2, 2019



Data Sources: Bing Maps

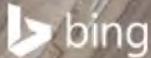
© 2019 Microsoft
TRILOGY
**Guardian Capital: Bedford Marketplace
Regional Map**

FIGURE 1



Legend

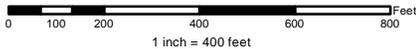
Approximate Project Boundary



© 2019 Microsoft Corporation © 2019 DigitalGlobe © CNES (2019) Distribution Airbus DS © 2019 HERE

GIS Prepared By:
Carlson SLS

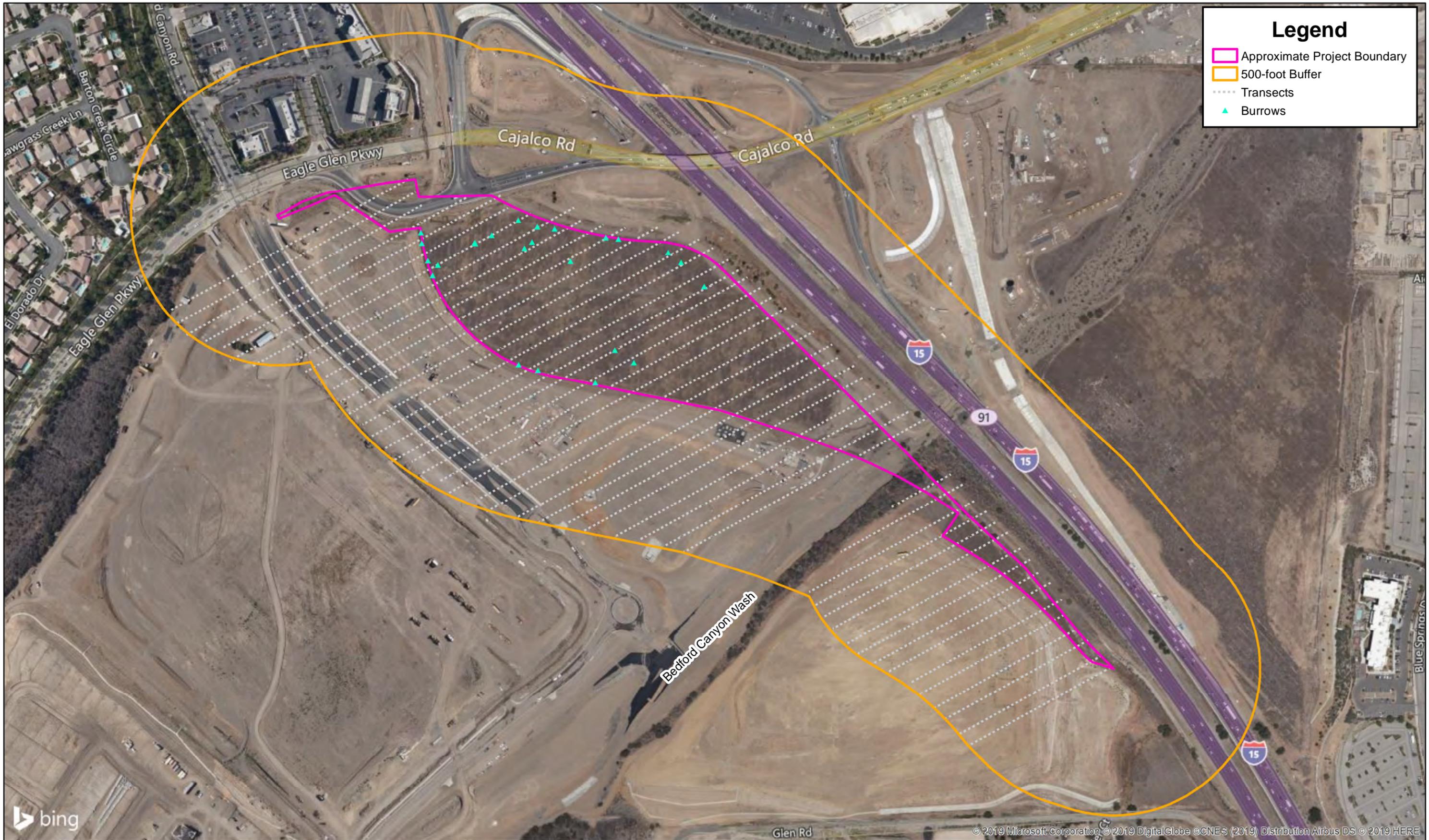
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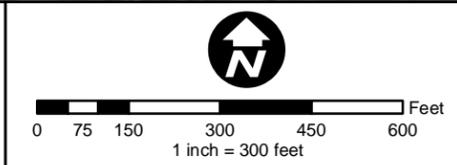
Data Source: Bing Maps

Guardian Capital: Bedford Marketplace
Vicinity Map

FIGURE 2



GIS Prepared By:
Carlson SLS
Created: August 2, 2019



Data Source: Bings Map
Field Visit (06/27/19)
Field Visit (07/08/19)
Field Visit (07/25/19)
Field Visit (08/01/19)

Guardian Capital: Bedford Marketplace
Transect and Burrow Map

FIGURE 3

APPENDIX A

Representative Photographs



Looking north-east over the Project site containing ruderal vegetation.



Looking south at the Project site containing ruderal vegetation.



Looking east at the Project site within the ruderal vegetation.



Looking north-west at the Project site within the ruderal vegetation.



Typical size of Burrow observed onsite actively utilized by the California Squirrel.



Looking south-east at the disturbed areas within the Study Area.



Looking south at the disturbed areas within the Study Area.



Looking south-west within the surrounding 500-foot buffer.

APPENDIX B

**Representative Photographs of Community
Classifications**



Photostation 1.



Photostation 2.



Photostation 3.



Photostation 4.



Photostation 5.



Photostation 6.



Photostation 7.



Photostation 8.



Photostation 9.



Photostation 10.



Photostation 11.



Photostation 12.

APPENDIX C

**Special Status Plant Species Potential
Occurrence Determination**

APPENDIX D

Plant Species Recorded During the Field Surveys

APPENDIX E

Special Status Wildlife Species Potential Occurrence Determination