Appendix B
Biological Technical Report

BIOLOGICAL TECHNICAL REPORT

HAMNER AVENUE WIDENING PROJECT - SCHLEISMAN ROAD TO CITRUS STREET AND DETROIT STREET TO 6TH STREET

RIVERSIDE COUNTY TRANSPORTATION PROJECT C9-0019

NORCO AND EASTVALE, CALIFORNIA

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Acronyms and Abbreviations

Bridge Replacement Project	Hamner Avenue Bridge Replacement Project
BSA	biological study area
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFG Code	California Fish and Game Code
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
FESA	Federal Endangered Species Act
I-15	Interstate 15
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
OHWM	Ordinary High Water Mark
PBFs	Physical and Biological Features
Porter-Cologne	Porter-Cologne Water Quality Control Act
PQP	Public/Quasi Public
project	Hamner Avenue Widening Project
RCA	Western Riverside Regional Conservation Authority
RCTD	Riverside County Transportation Department
RWQCB	Regional Water Quality Control Board
TCEs	temporary construction easements
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Survey
WoS	Waters of the State
WoUS	Waters of the U.S.

Chapter 1
Introduction

This report contains the results of a biological resources and habitat assessment conducted for the Hamner Avenue Widening Project (project) located in the cities of Norco and Eastvale, Riverside County, California.

1.1 Project Location

The project is located within two segments along Hamner Avenue in the cities of Eastvale and Norco, Riverside County, California (Figures 1 and 2, Appendix A). The first segment is from Schleisman Road to Citrus Street in the cities of Eastvale and Norco and the second segment is from Detroit Street to 6th Street/Norco Drive in the City of Norco. The project occurs within Township 2S, Ranges 6W and 7W, Sections 31 and 36 and Township 3S, Ranges 6W and 7W, Sections 1 and 6 of the Corona North United States Geological Survey (USGS) 7.5-Minute topographic quadrangle (USGS 1967).

Hamner Avenue is a north-south arterial road in the cities of Norco and Eastvale. It is located approximately 0.5 mile west of Interstate 15 (I-15) in the City of Eastvale and approximately 1,000 feet west of the I-15 Freeway in the City of Norco. Hamner Avenue is primarily located within the City of Norco and enters the City of Eastvale approximately 1,100 feet north of Citrus Street.

1.2 Project Purpose and Need

Riverside County Transportation Department (RCTD), in cooperation with the cities of Norco and Eastvale, is proposing to widen two segments of Hamner Avenue from 6th Street/Norco Drive to Detroit Street and from Citrus Street to Schleisman Road, from four lanes (two lanes in each direction) to six lanes (three lanes in each direction) in anticipation of the Hamner Avenue Bridge Replacement Project (Bridge Replacement Project), which will widen Hamner Avenue Bridge over the Santa Ana River. The limits of the Bridge Replacement Project are from Detroit Street to Citrus Street.

The purpose of this project is to provide street improvements to achieve three lanes of travel in each direction along Hamner Avenue and to eliminate the lane reduction bottleneck that would occur north of 6th Street and south of Schleisman Road with the completion of the Bridge Replacement Project between Detroit Street and Citrus Street. Once constructed, these projects will help to meet the current and future traffic demands, improving traffic operation for this corridor.

1.3 Project Description

The total project area is approximately 17 acres and roughly 0.63 mile in length. The proposed street improvements include two segments of Hamner Avenue: the Schleisman Road to Citrus Street

Segment (cities of Eastvale and Norco) and the Detroit Street to 6th Street/Norco Drive Segment (City of Norco), described in the subsections below.

It is anticipated that construction will occur at the same time as the Bridge Improvement Project between Detroit Street and Citrus Street. Construction will occur in three stages, with improvements on the west side of Hamner Avenue constructed in Stage One, improvements on the east side in Stage Two, and the southerly portion's median improvements constructed in Stage Three.

Construction is scheduled to begin in January 2021. The project is being constructed concurrently with the Bridge Replacement Project, with an anticipated duration of 36 months, although construction-related work specific to this project is expected to take approximately four months.

1.3.1 Schleisman Road to Citrus Street Segment

The Schleisman Road to Citrus Street Segment is located in the cities of Eastvale and Norco. The project would widen both the west and east sides of Hamner Avenue to expand the segment from four lanes (two lanes in each direction) to six lanes (three lanes in each direction) (Figure 3, Appendix A). Project design features include:

- Widening of the west side of Hamner Avenue from approximately 200 feet north of Citrus Street for 900 feet, joining the existing roadway. Improvements include pavement improvements, new curb and gutter and 6-foot wide sidewalk, construction of approximately 500 feet of retaining wall at the back of walk, relocation of an existing 20-inch waterline in the parkway, relocation of street lights and signage, and replacement of any parkway landscaping that is impacted by the project.
- Widening of the east side of Hamner Avenue from Citrus Street to approximately 500 feet north to join the existing roadway. Improvements include protecting the existing Southern California Edison transmission poles in place, pavement improvements, new curb and gutter and 6-foot wide sidewalk, reconstruction of one catch basin, reconstruction of decorative fence at the back of walk, minor grading behind the sidewalk, and replacement of any parkway landscaping that is impacted by the project.
- Striping improvements to provide dual southbound left turn lanes into the Silverlakes Athletic Fields at Citrus Street, three lanes in each direction at the intersection, transitioning to provide Class II bike lanes north of the southbound left turn pocket transitions, and a painted median extending to Schleisman Road with one northbound left turn lane.

All work on the west side of Hamner Avenue for this segment will be within the existing parkway and no temporary construction easements (TCE's) or slope easements will be necessary. On the eastern side of Hamner Avenue, the improvements will remain within the Right-of-Way and Silverlakes Park owned by the City of Norco and no slope easements or TCEs are required. There will be a raised median from Schleisman Road to approximately 600 feet south, ending at the Eastvale City Limit line.

The staging area for the Schleisman Road to Citrus Street Segment is anticipated to be the same site as used for the Bridge Improvement Project, although it is uncertain whether the contractor will need to use the site. The proposed staging area is a gravel overflow parking lot for the SilverLakes

Sports Complex on the east side of Hamner Avenue, located approximately 1,400 feet south of Citrus Avenue (Figure 3, Appendix A).

1.3.2 Detroit Street to 6th Street/Norco Drive Segment

The Detroit Street to 6th Street/Norco Drive Segment is located in the City of Norco. The project will widen the west side of Hamner Avenue to expand the segment from four lanes (two lanes in each direction) to six lanes (three lanes in each direction); the east side will not be widened to avoid the relocation of electrical transmission lines and poles located near the east curb face (Figure 3, Appendix A). Project design features include:

- Widening of the west side of Hamner Avenue from approximately 200-feet north of Taft Street transitioning to join the proposed improvements at Detroit Street. Improvements will include roadway widening, new curb and gutter and 6-foot wide sidewalk, relocation of street lights and traffic signs, reconstruction of a retaining wall between Hamner Avenue and the existing Park-and-Ride lot, and removal of the City Monument entry Sign.
- Reconstruction of the raised median from Taft Street to Detroit Street. Improvements include pavement construction, new raised median curb, and replacement of irrigation and landscaping.
- Striping improvements to provide three 12-foot wide travel lanes in each direction and a dedicated right turn lane at Detroit Street.
- Reconstruction of the City Monument entry sign at the same location, or located near the intersection of Alhambra Street.
- Traffic pole replacement to accommodate a longer mast arm.

The proposed staging area for the Detroit Street to 6th Street/Norco Drive Segment is a vacant lot located on the east side of Hamner Avenue north of Taft Street (Figure 3, Appendix A).

Chapter 2
Methods

2.1 Terminology

Within this report, the term "project" refers to the proposed construction footprint encompassing the proposed construction limits and lay down areas. The term "biological study area (BSA)" refers to the project plus an additional 500-foot buffer. Special-status species referred to in this report include those wildlife and plants listed as threatened or endangered under federal or state endangered species acts (CDFW 2019a); plant species designated by the California Native Plant Society (CNPS) with a California Rare Plant Rank (CRPR) or other plants of local concern (CNPS 2019); wildlife that is designated as a California Species of Special Concern, as defined by the California Department of Fish and Wildlife (CDFW; CDFW 2019a), and wildlife species that are fully protected in California (California Fish and Game Code [CFG Code] Sections 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]).

2.2 Literature and Database Review

A literature review was conducted to evaluate the environmental setting of the BSA prior to a habitat assessment and to identify special-status species or potentially-suitable habitat for special-status species. The literature review included the following:

- U.S. Fish and Wildlife Service (USFWS) Critical Habitat for Threatened and Endangered Species online mapper (USFWS 2019).
- USFWS Information, Planning, and Conservation System List of Proposed, Threatened, and Endangered Species, and Critical Habitats Report (Appendix B; USFWS 2020).
- California Natural Diversity Database (CNDDB; CDFW 2019b).
- CNPS Online Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019).
- Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Summary Report Generator (MSHCP 2019).

Database queries were conducted for the Corona North (USGS 1967) USGS 7.5-Minute quadrangle containing the BSA. A single quadrangle search, rather than a 9-quadrangle search, was performed because the project site is located directly in the middle of the Corona North quadrangle, the project footprint is small and occurs along a developed roadway, and no native vegetation communities occur within the project limits of disturbance.

2.3 Field Surveys

2.3.1 Biological Resource Surveys and Habitat Assessment

Specific information for the BSA was developed in part through a general field evaluation. Habitat evaluations for special-status species and biological resources were conducted by biologists familiar with species habitat requirements. This reconnaissance allowed the biologists to determine which focused evaluations and surveys were required. Where access was available, the BSA was surveyed on foot. Where access was not available (e.g., no permission to enter, fences, locked gates), areas were analyzed from accessible property boundaries with the aid of binoculars and high-resolution aerial maps (1:200 scale). These areas were limited and consisted of developed areas that do not contain suitable habitat for sensitive biological resources. The BSA for this work was the limits of disturbance and a 500-foot buffer (Figure 4, Appendix A). Survey dates and personnel are provided in Table 1.

Vegetation classifications of plant communities were derived from the criteria and definitions of Sawyer et al. (2009). For the purpose of sensitive vegetation communities based on Holland (1986), the most reasonable vegetation classification from Sawyer et al. (2009) was used as a synonymous vegetation classification. Plants were identified to the lowest taxonomic level sufficient to determine whether the plant species observed was invasive, non-native, native, or special-status. Plants of uncertain identity were subsequently identified from taxonomic keys (Baldwin et al. 2012). Scientific and common species names were recorded according to Baldwin et al. (2012). Photos of vegetation communities were taken during field surveys and are provided in Appendix C.

Wildlife observations were documented within the BSA during habitat assessments. The presence of a wildlife species was determined through direct observation or wildlife sign (e.g., tracks, burrows, nests, scat, or vocalization). Field guides were used to assist with identification of species during surveys and included the *National Geographic Field Guide to the Birds of North America* (National Geographic 2011), *Western Reptiles and Amphibians* (Stebbins 2003), and *A Field Guide to the Mammals of North America* (Reid 2006). All plant and wildlife species observed during field surveys were noted and are included in Appendices D and E, respectively.

Plant and wildlife species, as well as natural communities in California that have special regulatory or management status (e.g., special-status species), were evaluated for their potential to occur in the BSA.

Table 1. Survey Dates and Personnel for Biological Surveys

Date	Personnel
Vegetation Mapping and Rare Plant Focused Surveys	
4/26/2019	Greg Hoisington
Burrowing Owl Protocol Surveys	
Habitat Assessment	
8/9/2019	Kristen Klinefelter
Focused Protocol Survey	
8/9/2019	Kristen Klinefelter

Date	Personnel
8/22/2019	Kristen Klinefelter
8/28/2019	Kristen Klinefelter
9/15/2019	Kristen Klinefelter

2.3.2 Rare Plant Focused Surveys

A rare plant focused survey was conducted for those species having suitable habitat present within the rare plant study area (i.e., project limits of disturbance plus a 100-foot buffer; Figure 5, Appendix A). Determinations of the presence of suitable habitat for special-status plants were based on each species natural life history requirements, which included hydrology, existing habitat, tolerance to disturbance, elevation range, soil types, current land uses, and/or disturbances. The rare plant focused survey conducted for the project was consistent with MSHCP requirements for Narrow Endemic plant species as described in Section 6.1.3 (Protection of Narrow Endemic Plant Species) of the MSHCP.

A rare plant focused survey was conducted on April 26, 2019. Focused survey methods were derived from the standardized guidelines issued by USFWS (USFWS 2000), CDFW (CDFW 2000, 2009), and CNPS (CNPS 2001). The survey was completed by walking meandering belt transects throughout suitable habitat. The distance between transects was adjusted when necessary to provide adequate coverage and to account for ground surface visibility, terrain, vegetation density, and access. The survey was targeted within unique portions of the BSA where microhabitats had an increased potential to support special-status species. Survey dates and personnel are provided in Table 1.

The focused rare plant survey was conducted during the appropriate blooming season for the special-status plant species potentially occurring within the BSA that require flowers for detection; the few plants whose blooming period is outside of when the survey was performed are conspicuous perennials that would have been detectable while not in flower.

MSHCP Plant Surveys

Portions of the project lie within MSHCP plant survey areas. At a minimum, habitat evaluations for the species listed under these survey areas must be performed. If potentially suitable habitat is present, then focused surveys must be conducted. The MSHCP plant survey area maps are presented in Volume I of the MSHCP (Figure 6-1) and also in this report (see Section 2.5.3 and Figure 7a, Appendix A).

MSHCP Narrow Endemic Survey Area 7

Narrow Endemic plant species in this survey area include San Diego ambrosia (*Ambrosia pumila*), San Miguel savory (*Clinopodium chandleri*), and Brand's phacelia (*Phacelia stellaris*).

In addition to the Narrow Endemic plant species required for study under the MSHCP, other special-status plant species are known to occur in the geographical region of the BSA. These species include:

- MSHCP survey area species (Narrow Endemic, Criteria Area) for which the MSHCP survey area does not overlap the BSA; and
- MSHCP fully Covered Species for which no study is required.

These species were included in the rare plant focused survey conducted on April 26, 2019.

2.3.3 Burrowing Owl Protocol Surveys

An evaluation was performed to determine whether potentially suitable habitat for burrowing owl (*Athene cunicularia*) was present. Surveys were conducted within the limits of disturbance plus a 500-foot buffer (Figure 6, Appendix A).

The habitat evaluation identified potential suitable habitat at a broad landscape level. Suitable habitat was identified by the presence of low vegetation cover, presence of potential burrows, perch sites, and/or burrowing owl sign such as scat, tracks, pellets, or feathers (CDFW 2012). Open lands that were sparsely vegetated with native or non-native vegetation were considered potentially suitable. Areas with no suitable habitat, including fully developed parcels and areas with dense, tall vegetation lacking burrows or burrow surrogates were deemed unsuitable and excluded from further assessment.

Focused surveys for burrowing owl were then performed in areas determined to be potentially suitable habitat (Figure 6, Appendix A). Burrowing owl surveys followed a two-step protocol:

- Map and search for potential burrowing owl burrows and burrowing owl sign within the BSA.
- Perform a four-visit focused survey in suitable habitat within the BSA up to 500 feet.

Accessible portions of vacant fields and open areas were surveyed for suitable burrows. A systematic search for potential burrows and burrowing owl sign was performed by walking transects, thereby allowing for 100 percent coverage. All potential burrows were determined by burrow size (greater than 10 centimeters). The location of all potential burrows or burrow complexes was recorded and mapped as global positioning system point locations (Figure 6, Appendix A). Protocol surveys were then initiated in areas with suitable vegetation communities and suitable burrows. The protocol surveys were conducted during weather that was conducive to observing owls outside burrows and detecting sign. Biologists walked transects to ensure 100 percent visual coverage. All burrowing owl protocol surveys were conducted between one hour before sunrise or two hours after to comply with the MSHCP burrowing owl survey requirements (MSHCP 2006). Survey dates, times, and weather conditions are presented in Table 2. Table 1 provides the name of the personnel that performed the survey.

Burrowing owl is a Covered Species under the MSHCP, with surveys required within designated survey areas (see Section 2.5.3 and Figure 7a, Appendix A). Habitat assessments and focused surveys for this species were consistent with MSHCP requirements (MSHCP 2006).

Table 2. Survey Dates, Times, and Conditions for the Burrowing Owl Protocol Surveys

Date	Start/End Time	Temperature (Start/Stop, °F)	Wind Speed (mph)	% Cloud Cover
8/9/2019	5:45–8:08	59, 62	0	10
8/22/2019	5:40–8:17	64, 76	0	0
8/28/2019	5:45–8:21	65, 77	0	0
9/15/2019	5:55–8:10	63, 75	0	0

F=Fahrenheit; mph=miles per hour

2.4 Survey Limitations

Standard USFWS, CDFW, CNPS, and MSHCP survey protocols were used for all biological field surveys. No limitations were encountered that would influence the results of this Biological Technical Report, with the exception of areas where no access was possible and surveys were conducted from the nearest vantage point using binoculars and aerial maps; however, these areas were limited and consisted of developed areas that do not contain suitable habitat for sensitive biological resources. All areas could be observed with binoculars.

The locations for the proposed staging areas were identified following the completion of the 2019 field surveys and, thus, were not included in the field efforts. However, mapping of vegetation communities for these areas was based on the field results from the 2017 surveys performed for the Bridge Replacement Project (ICF 2018), as well as imagery from high-resolution aerial maps. Because the entire footprint for both proposed staging areas is composed of developed or ruderal land cover types, this does not pose a constraint to the project or a limitation to the analysis of potential biological resources.

No other limitations were encountered that would influence the results of this Biological Technical Report.

2.5 Regulatory Constraints

Applicable local, state, and federal laws and regulations, as well as court precedents enacted to protect and/or manage biological resources, were evaluated for their relevance and potential to constrain the project. The analysis of constraints provided in this report is based on a combination of direct evaluation of the BSA, current regulatory information, and professional judgment.

2.5.1 Federal Laws

The federal laws listed below were considered during evaluation of the biological resources in the BSA. Note that this is not an exhaustive list of all federal laws that may be applicable to the project.

Clean Water Act Section 404

The discharge (temporary or permanent) of dredged or fill material into waters of the U.S. (WoUS), including wetlands, typically requires authorization from the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA).

Waters of the United States

USACE-regulated activities under Section 404 of the CWA involve the discharge of dredged or fill material. These include, but are not limited to, grading, placing riprap for erosion control, pouring concrete, laying sod, and stockpiling excavated material in WoUS. Activities that generally do not involve a regulated discharge (if performed specifically in a manner to avoid discharges) include driving pilings, some drainage channel maintenance activities, constructing temporary mining and farm/forest roads, and excavating without stockpiling.

Clean Water Act Section 401

Under Section 401 of the CWA, any project activities that involve a discharge to WoUS shall comply with the applicable provisions of the CWA. The Regional Water Quality Control Board (RWQCB) regulates, at the state level, all activities that are regulated at the federal level by USACE. Under the Porter-Cologne Water Quality Control Act (Porter-Cologne; discussed in Section 2.1.2), the RWQCB regulates all such activities as well as dredging, filling, or discharging materials into waters of the state (WoS) that are not regulated by USACE because of a lack of connectivity with a traditional navigable water and/or the lack of an ordinary high water mark (OHWM).

Executive Order 11990 Protection of Wetlands

This order established a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. On federally funded projects, impacts on wetlands must be identified and alternatives that avoid wetlands must be considered. If impacts on wetlands cannot be avoided, all practicable minimization measures must be included.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests and the abandonment of nests occupied by migratory birds during the breeding season.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) declares a continuing federal policy "to use all practicable means and measures...to create and maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations." NEPA also directs "a systematic, interdisciplinary approach" to planning and decision-making and requires environmental statements for "major federal actions significantly affecting the quality of the human environment." Implementation regulations by the Council on Environmental Quality (40 Code of Federal Regulations Parts 1500–1508) require federal agencies to identify and assess reasonable alternatives to proposed actions that would restore and enhance the quality of the human environment and avoid or minimize adverse environmental impacts. Federal agencies are further directed to emphasize significant environmental issues in project planning and integrate impact studies required by other environmental laws and executive orders into the NEPA process. The NEPA process should, therefore, be seen as an overall framework for the environmental evaluation of federal actions.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) provides guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. Section 7 of the FESA requires federal agencies, in consultation with and with assistance from the Secretary of the Interior, to ensure that the actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modifications of critical habitat for these species.

If it is determined that the project would affect listed species, compliance with Section 7 of the FESA will be necessary. In addition, the project must be consistent with the terms and conditions of the MSHCP (Dudek 2003) and its Implementation Agreement (see Section 2.5.3). Any reasonable and prudent measures included under the terms and conditions of a FESA Biological Opinion would be consistent with the implementation measures of the MSHCP and its Implementation Agreement.

Executive Order 13112 Invasive Species

Executive Order 13112 requires federal agencies to combat the introduction or spread of invasive species in the United States. Federal Highway Administration guidance issued on August 10, 1999, directs the use of a state noxious weed list to identify the invasive plants that must be considered as part of the NEPA analysis for a proposed project. Under the executive order, federal agencies cannot authorize, fund, or carry out actions that are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

2.5.2 State Laws and Regulations

The state laws and regulations listed below were considered during evaluation of the biological resources in the BSA. Note that this is not an exhaustive list of all state laws and regulations that may be considered.

California Fish and Game Code, Sections 1600–1616

Under the current CFG Code, Sections 1600–1616, the CDFW has authority to regulate work that would substantially divert or obstruct the natural flow—or substantially change or use any material from the bed, channel, or bank—of any river, stream, or lake. This regulation takes the form of a requirement for a Lake or Streambed Alteration Agreement (LSAA) and is applicable to all projects involving state or local government discretionary approvals.

Porter-Cologne Water Quality Control Act

Under Porter-Cologne, the State Water Resources Control Board and RWQCBs assert jurisdiction over many discharges into WoS. Where resources are subject to both state and federal regulations, Porter-Cologne compliance is coordinated with CWA Section 401 certification. Jurisdiction includes those water features having an OHWM as well as features not regulated by USACE because of a lack of connectivity with a traditional navigable water and/or lack of an OHWM.

California Endangered Species Act

The California Endangered Species Act (CESA) established the state's policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies not approve projects that would jeopardize the continued existences of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that affect both a state and federal listed species, compliance with FESA would satisfy CESA if CDFW determines that the federal incidental take authorization is consistent with CESA under CFG Code Section 2080.1. For projects that would result in take of a state-only listed species, Caltrans must apply for a take permit under Section 2081(b). In addition, the proposed project must be consistent with the terms and conditions of the MSHCP and its Implementation Agreement (see Section 2.5.3). Any reasonable and prudent measures included under the terms and conditions of a CESA permit would be consistent with the implementation measures of the MSHCP and its Implementation Agreement.

California Fish and Game Code, Sections 3503, 3503.5, 3505, 3800, 3801.6

CFG Code Sections 3503, 3503.5, 3505, 3800, and 3801.6 protect native birds, birds of prey, and nongame birds, including eggs and nests, that occur naturally in the state and are not already listed as fully protected.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) establishes a state policy for preventing significant, avoidable damage to the environment by requiring changes to projects through the use of alternatives or mitigation measures. CEQA applies to actions that are directly undertaken, financed, or permitted by state lead agencies. Regulations for implementation are found in the State CEQA Guidelines published by the state resources agency (Office of the Secretary).

2.5.3 Local Regulations

The local regulations listed below were considered during evaluation of the biological resources in the BSA. Note that this is not an exhaustive list of all local regulations that may be considered.

County of Riverside Oak Tree Management

Riverside County's oak tree management guidelines are intended to provide long-term protection and conservation of oak trees and oak woodlands and provide guidance on establishing baseline oak tree data to develop adequate avoidance, minimization, and/or compensation for impacts on this natural resource.

Western Riverside County Multiple Species Habitat Conservation Plan

The project involves an existing facility and therefore is a Covered Activity within the MSHCP boundaries of the Eastvale Area Plan (Subunit 1: Santa Ana River – Central) and the Cities of Riverside/Norco Area Plan (Subunit 1: Santa Ana River – South) (Dudek 2003). Portions of the BSA overlap with the following MSHCP resources (Figures 7a & 7b, Appendix A):

- Criteria Cells 786 and 876.

- Public/Quasi-Public (PQP) conserved lands (Object ID 605 and 553) (within the study area buffer only; does not overlap with the project limits of disturbance).
- Existing Core A (within the study area buffer only; does not overlap with the project limits of disturbance).
- MSHCP Narrow Endemic Survey Area 7: San Diego ambrosia, San Miguel savory, Brand's phacelia.
- MSHCP Burrowing Owl Survey Area.

Chapter 3
Results

3.1 Environmental Setting

The BSA lies within an existing developed area. The Eastvale Community Park, SilverLakes Sports Complex, and residential development occur within the Schleisman Road to Citrus Street Segment of the BSA and residential development, commercial development, and public facilities (e.g., Norco Public Library) occur within the Detroit Street to 6th Street/Norco Drive Segment of the BSA. The Santa Ana River, an open area with native riparian habitat, occurs between the two segments. Land uses within the area include dense residential and commercial development, disturbed open areas, community parks, conservation lands, and public infrastructure. Public lands include the roadways, existing state right of way, community parks, and the Santa Ana River and adjacent open space, with the remainder of the BSA composed of private lands associated with residential development and open space.

The BSA is located within the Corona North USGS 7.5-Minute topographic quadrangle at an approximate elevation range between 580 and 680 feet. The topography within the BSA is relatively flat, with graded developed areas and disturbed open areas surrounding the floodplains of the Santa Ana River. It bisects the Santa Ana River, a part of the Santa Ana River Watershed that covers 2,800 square miles and drains through San Bernardino, Riverside, and Orange counties before emptying into the Pacific Ocean. The portion of the Santa Ana River within the BSA is unconfined with an active floodplain and historical floodplain. It has earthen banks and channel bottom with the exception of the western portion of the north bank, where rock riprap armoring is present. The banks and terraces of the river are composed of sand, loamy sand, and sand clay loam and appear easily erodible. Soils in the BSA are all generally sandy and are associated with the alluvial fan geology that extends from the San Bernardino Mountains to the north down to the project site. All soils have high drainage capacity. Soil series identified in the BSA are listed in Table 3 and shown on Figure 8 (USDA-NRCS 2019).

Table 3. Soil Series Occurring in the BSA

Soil Series
Bonsall fine sandy loam, 8 to 15 percent slopes
Buchenau loam, slightly saline-alkali, 2 to 8 percent slopes; Buchenau silt loam, 2 to 8 percent slopes, eroded
Cieneba sandy loam, 8 to 15 percent slopes, eroded; Cieneba sandy loam, 15 to 50 percent slopes, eroded; Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
Dello loamy sand, poorly drained, 0 to 2 percent slopes
Grangeville fine sandy loam, poorly drained, saline-alkali, 0 to 5 percent slopes; Grangeville loamy fine sand, drained, 0 to 5 percent slopes
Greenfield sandy loam, 2 to 8 percent slopes, eroded
Hanford cobbly coarse sandy loam, 2 to 15 percent slopes, eroded
Placentia fine sandy loam, 0 to 5 percent slopes
Ramona very fine sandy loam, 0 to 8 percent slopes, eroded; Ramona sandy loam, 5 to 8 percent slopes, eroded; Ramona sandy loam, 8 to 15 percent slopes, eroded
Terrace escarpments

3.2 Vegetation Communities/Land Use Types

The BSA is composed primarily of developed and disturbed areas adjacent to Hamner Avenue. Four vegetation communities that are grouped as riparian/riverine resources occur within the BSA outside of the project limits of disturbance; three of which are classified as depleted natural communities and habitats of concern by CDFW (Fremont Cottonwood Forest/Black Willow Thickets, Mulefat Thickets, California Bulrush Marsh; CDFW 2019b). Each community is listed in Table 4, along with its acreage in the BSA (refer to Figure 4 [provided in Appendix A] for an illustration of the vegetation community locations in the BSA and to Appendix C for representative photos of vegetation communities). Descriptions of the riparian vegetation communities are from the *Natural Environment Study Report* for the Bridge Replacement Project (ICF 2018).

Table 4. Vegetation Communities/Land Use Types within the BSA

Vegetation Community/Land Use	Acres
Developed	157.92
Ruderal	10.36
Annual Brome Grasslands	0.91
Fremont Cottonwood Forest/Black Willow Thickets	11.43
Mulefat Thickets	0.06
California Bulrush Marsh	0.52
Open Water	0.77
Total	**181.97**

3.2.1 Developed

Areas mapped as Developed include roadways, buildings, residential housing, and other permanent structures, as well as soccer fields and public parks. These land use types are the dominant land cover throughout the BSA and typically contains ornamental vegetation. This vegetation community is classified as Developed/Disturbed Land under the MSHCP.

3.2.2 Ruderal

Ruderal is a non-native vegetation community that occurs throughout the BSA. Areas mapped as Ruderal do not truly meet any of the vegetation communities described in the Manual of California Vegetation. Dominant species within this vegetation community consist of forbs such as London rocket (*Sisymbrium irio*), horehound (*Marrubium vulgare*), summer mustard (*Hirschfeldia incana*), tocalote (*Centaurea melitensis*), and Russian thistle (*Salsola tragus*). Additional species observed in this community include ripgut brome (*Bromus diandrus*), smilo grass (*Stipa miliaceum*), and Mediterranean schismus (*Schismus barbatus*). This vegetation community is not classified under the MSHCP, but most closely matches the Residential/Urban/Exotic classification.

3.2.3 Annual Brome Grasslands

Annual Brome Grasslands is a non-native vegetation community and occurs along the west of Hamner Avenue within the Detroit Street to 6th Street/Norco Drive Segment. Dominant species within this vegetation community consist of non-native grasses and forbs such as ripgut brome, smilo grass, Mediterranean schismus, and London rocket. Additional species observed in this community include red brome (*Bromus madritensis*), wild oats (*Avena* sp.), horehound (*Marrubium vulgare*), and Russian thistle. This vegetation is classified as Non-Native Grasslands by the MSHCP and Holland (1986).

3.2.4 Fremont Cottonwood Forest/Black Willow Thickets

Fremont Cottonwood Forest/Black Willow Thickets is a native vegetation community and occurs in the BSA outside of the project limits of disturbance along the Santa Ana River and earthen flood control channel on the west side of Hamner Avenue north of the river. Dominant species within this community consists mostly of woody shrubs and trees with herbaceous understory consisting of black willow (*Salix gooddingii*), Fremont's cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), sandbar willow (*Salix exigua*), red willow (*Salix lasiandra*), mulefat (*Baccharis salicifolia*), giant reed (*Arundo donax*), California blackberry (*Rubus ursinus*), and wild grape (*Vitis girdiana*). Additional species observed in this community consist of Shamel ash (*Fraxinus uhdei*), castor bean (*Ricinus communis*), poison hemlock (*Conium maculatum*), white sweet clover (*Melilotus indica*), stinging nettle (*Urtica dioica*), golden crownbeard (*Verbesina encelioides*), Mediterranean tamarisk (*Tamarisk ramosissima*), and Mexican fan palm (*Washingtonia robusta*). This vegetation is classified as Southern Cottonwood/Willow Riparian Forest by the MSHCP and Holland (1986). It is an MSHCP riparian/riverine resource and is considered a sensitive vegetation community (see Section 4.1).

3.2.5 Mulefat Thickets

Mulefat Thickets is a native vegetation community and occurs within the BSA outside of the project limits of disturbance and is associated with the Santa Ana River and the earthen flood control

channel on the west side of Hamner Avenue north of the river. Dominant species within this community consist of the woody shrub mulefat. Additional species associated with this community consists of sandbar willow, wild grape, and poison hemlock. This vegetation is classified as Mule Fat Scrub by the MSHCP and Holland (1986). It is an MSHCP riparian/riverine resource and is considered a sensitive vegetation community (see Section 4.1).

3.2.6 California Bulrush Marsh

California Bulrush Marsh is a native vegetation community and occurs within the BSA outside of the project limits of disturbance and is associated within the Santa Ana River and the earthen flood control channel on the west side of Hamner Avenue north of the river. Dominant species within this community consist of low to medium height herbaceous species such as California bulrush (*Schoenoplectus californicus*), willow smart-weed (*Persicaria lapathifolium*), tall umbrella sedge (*Cyperus eragrostis*), cattail (*Typha domingensis*), cocklebur (*Xanthium strumarium*), white water-cress (*Nasturtium officinale*), and stinging nettle. Additional species observed in this community consist of scattered individuals of woody shrubs and trees such as mulefat, arroyo willow, sandbar willow, red willow, black willow, Fremont's cottonwood, as well as herbaceous species such as annual sunflower (*Helianthus annuus*), California blackberry, and wild grape. This vegetation is classified as Coastal and Valley Freshwater Marsh by the MSHCP and Holland (1986). It is an MSHCP riparian/riverine resource and is considered a sensitive vegetation community (see Section 4.1).

3.2.7 Open Water

Areas mapped as Open Water occur within the BSA outside of the project limits of disturbance and are associated within the Santa Ana River. Open Water is more or less free of vegetation, although some areas along the banks of the river support patches of duckweed (*Lemna* sp.). This vegetation community is classified as Open Water/Reservoir/Pond under the MSHCP and it is an MSHCP riparian/riverine resource.

3.3 Common Plants and Wildlife

A total of 16 plant species were identified within the BSA during the 2019 field surveys. Most of these plant species are non-native forbs and grasses and are common within the BSA vicinity. Appendix D provides a list of all plant species observed within the BSA during the habitat assessment.

Ten species of wildlife were detected within the BSA, the majority of which were birds (8), followed in species richness by reptiles (1) and mammals (1). Most of the wildlife observed are common species that have adapted and thrive in areas with human-made habitats or disturbances. Appendix E provides a list of all wildlife species observed within the BSA during field surveys.

3.4 Special-Status Plants

A literature review determined that ten special-status plant species may potentially occur within the BSA. Three of these species are listed as federally and/or state threatened and/or endangered: San Diego ambrosia, thread-leaved brodiaea (*Brodiaea filifolia*) and Santa Ana River woollystar

(*Eriastrum densifolium* ssp. *sanctorum*). The BSA supports marginally suitable habitat for one special-status plant species. Nine of the ten special-status plants identified in the literature review were determined to be absent due to a lack of suitable habitat, range constraints, or absence during focused rare plant surveys conducted during the appropriate blooming period. No special-status plant species were observed within the BSA during biological reconnaissance and focused rare plant surveys. Special-status plant species and their habitat requirements, regulatory status, and potential for occurrence within the BSA are detailed in Table 5.

3.5 Special-Status Wildlife

A literature review determined that 25 special-status wildlife species may potentially occur within the BSA. Eleven of these species are federally and/or state-listed candidate, endangered, or threatened: Crotch bumble bee (*Bombus crotchii*), Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), Santa Ana sucker (*Catostomus santaanae*), steelhead (*Oncorhynchus mykiss irideus*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), California black rail (*Laterallus jamaicensis coturniculus*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and Stephens' kangaroo rat (*Dipodomys stephensi*). The BSA supports suitable to marginally suitable habitat for several special-status wildlife species. Twelve of the 25 special-status wildlife species identified in the literature review were determined to be absent due to a lack of suitable habitat or absence of sign during surveys. Four were determined to have potential to occur within the BSA. The remaining nine special-status wildlife species were determined to have potential habitat present within the Santa Ana River portion of the BSA outside of the project footprint, including the federally-listed threatened Santa Ana sucker and the federally and state-listed endangered least Bell's vireo and southwestern willow flycatcher. Special-status wildlife species and their habitat requirements, regulatory status, and potential for occurrence within the BSA are detailed in Table 5.

Table 5. Special-Status Species Potential to Occur within the BSA

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
Plants				
Chaparral Sand-verbena (*Abronia villosa* var. *aurita*)	-/-/1B.1/-	This annual herb is found in sandy soil within coastal scrub, mostly on broad alluvial fans and benches. Known to occur in northern Orange County, western Riverside County, San Bernardino County, San Diego County, and southern Imperial County. It blooms from January through August at elevations from 262 feet (ft.) to 5,248 ft. above mean sea level (amsl). It is threatened by flood control activities.	HA	No suitable habitat is present within the rare plant survey area (i.e., project limits of disturbance plus 100-foot buffer). In addition, focused surveys were performed in April 2019, as well as in May 2017 for the Hamner Avenue Bridge Replacement Project, and the species was found to be absent from the BSA. Therefore, this species does not pose a constraint to the project and no further action is necessary.
San Diego Ambrosia (*Ambrosia pumila*)	E/-/1B.1/ MSHCP(b)	This perennial rhizomatous herb occurs in open floodplain terraces or in the watershed margins of vernal pools. This species occurs in a variety of associations that are dominated by sparse non-native grasslands or ruderal habitat in association with river terraces, vernal pools, and alkali playas. San Diego ambrosia generally occurs at low elevations less than 1,600 ft. amsl in known Riverside County populations and less than 600 ft. amsl in San Diego County. It blooms from April through October.	HA	No suitable habitat is present within the rare plant survey area. In addition, focused surveys were performed in April 2019, as well as in May 2017 for the Hamner Avenue Bridge Replacement Project, and the species was not observed. This species was last observed within the project vicinity in 1940 and has since been extirpated by development. The nearest extant occurrence record is 20 miles to the southeast (CNDDB 2019). Therefore, the species is considered absent from the BSA and no further action is necessary. MSHCP: This is a Narrow Endemic Plant Species (Area 7) for the project.

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
Thread-leaved Brodiaea (*Brodiaea filifolia*)	T/E/1B.1/ MSHCP(d)	This perennial bulbiferous herb is found in heavy soils (e.g., clay) in coastal sage scrub, chaparral, cismontane woodland, and vernal pools from 1,575 ft. to 4,000 ft. amsl. This species blooms from March through June. Within western Riverside County, found in southern Santa Ana Mountains, Santa Rosa Plateau, and alkali flats of the San Jacinto River flood plain and west of Hemet.	HA	Not expected to occur in the BSA. No suitable habitat or soils are present within the BSA and the project occurs well below the known elevational range for this species. In addition, it was not detected during 2019 focused surveys. Therefore, this species is not reasonably expected to occur and does not pose a constraint to the project.
Smooth Tarplant (*Centromadia pungens* ssp. *laevis*)	-/-/1B.1/ MSHCP(d)	This annual herb is found in association with fine or alkaline soils in seasonally wet chenopod scrub, meadows and seeps, playas, riparian woodland, fallow fields, drainage ditches, and moist situations within valley and foothill grasslands below 2,099 ft. amsl in elevation. It is tolerant of rural and agricultural land use and is found primarily in southwestern Riverside County, but also a few sites in the interior valleys of San Bernardino, Los Angeles, and San Diego counties. This species blooms from April through September.	HA	Not expected to occur in the BSA. No suitable alkaline habitat occurs within the BSA. The species was not detected during focused surveys conducted in April 2019. This species is not expected to occur and does not pose a constraint to the project. MSHCP: The study area lies outside the MSHCP survey area for the species (Criteria Areas 1, 2, 3, and 4); therefore, there is no MSHCP-specific survey requirement. Any potential impacts to the species would be fully mitigated by the MSHCP. No further action is necessary.
San Miguel savory (*Clinopodium chandleri*)	-/-/1B.2/ MSHCP(b)	This perennial shrub generally occurs in rocky, gabbroic or metavolcanic areas within chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland habitats.	HA	No suitable habitat is present within the rare plant survey area. In addition, focused surveys were performed in April 2019, as well as in May 2017 for the Hamner Avenue Bridge Replacement

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
		Elevations range from 394 to 3,527 ft. amsl. The typical blooming period extends from March through July.		Project, and the species was found to be absent from the BSA. Therefore, this species does not pose a constraint to the project and no further action is necessary. MSHCP: This is a Narrow Endemic Plant Species (Area 7) for the project.
Paniculate Tarplant (*Deinandra paniculata*)	-/-/4.2/-	This annual herb is found in coastal scrub, valley and foothill grassland, and vernal pool habitats, generally in vernally mesic and sometimes sandy conditions. It occurs at elevations ranging from 82 ft. to 3,084 ft. amsl and blooms from April through November.	HP	Marginally suitable habitat is present within the rare plant study area. However, this species was not observed during April 2019 focused surveys. In addition, it was not detected during focused surveys in May 2017 or during a wetland delineation conducted in July 2017 for the Hamner Avenue Bridge Replacement Project.
Many-stemmed Dudleya (*Dudleya multicaulis*)	-/-/1B.2/ MSHCP(b)	This perennial herb is found on the coastal slopes of southern California from Los Angeles and San Bernardino counties south, from about 49 ft. to 2,591 ft. amsl in elevation. It usually grows on poor soils, often on clay or at the margins of gabbroic rock outcrops in chaparral, coastal sage scrub, and valley and foothill grassland communities. Its blooming period is from April through July.	HA	No suitable habitat, soils, or rock outcrops are present within the rare plant survey area. In addition, focused surveys were performed in April 2019, as well as in May 2017 for the Hamner Avenue Bridge Replacement Project, and the species was not observed. MSHCP: This species is a Narrow Endemic Plant Species. The study area lies outside of the MSHCP survey area for the species (Areas 1, 2, and 10). Therefore, there is no MSHCP-specific survey requirement and no further

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
				action is necessary.
Santa Ana River Woollystar (*Eriastrum densifolium* ssp. *sanctorum*)	E/E/1B.1/ MSHCP	A perennial herb known from a single extended but heavily fragmented population in Riverside and San Bernardino counties; it formerly extended into Orange County. An inhabitant of alluvial fan sage scrub in sandy to gravelly soils that can be found at elevations ranging from 450 ft. to 2,000 ft. amsl. It typically blooms from June through August.	HA	No suitable habitat is present within the rare plant survey area. This highly conspicuous perennial plant was not detected during April 2019 focused surveys for the project, nor was it detected during focused surveys performed for the Hamner Avenue Bridge Replacement Project in May 2017. Because this species is a conspicuous perennial plant and was not detected within the BSA during focused surveys, it is considered absent and does not pose a constraint to the project. MSHCP: This species is fully covered by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
Robinson's Pepper-Grass (*Lepidium virginicum* var. *robinsonii*)	-/-/4.3/-	This annual herb is found in dry soils in chaparral and coastal sage scrub openings at elevations ranging from sea level to 3,100 ft. amsl. Its blooming period is from January through July.	HA	No suitable habitat is present within the rare plant survey area. This species was not detected during April 2019 focused surveys for the project, nor was it detected during focused surveys performed for the Hamner Avenue Bridge Replacement Project in May 2017, and is considered absent from the BSA.
Brand's Star Phacelia	-/-/1B.1/	This annual herb occurs within coastal	HA	No suitable habitat is present within the

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
(*Phacelia stellaris*)	MSHCP(b)	dunes and coastal scrub habitats in sandy openings, sandy benches, dunes, sandy washes, or flood plains of rivers and is restricted to clay soils. It is found at elevations ranging between 3 ft. and 1,312 ft. amsl. It blooms from March through June.		rare plant survey area. This species was not detected during April 2019 focused surveys for the project, nor was it detected during focused surveys performed for the Hamner Avenue Bridge Replacement Project in May 2017, and is considered absent from the BSA. MSHCP: This is a Narrow Endemic Plant Species (Area 7) for the project. Focused surveys were conducted in May 2017 and no individuals were observed. Therefore, the species is considered absent from the BSA and no further action is necessary.
Invertebrates				
Crotch Bumble Bee (*Bombus crotchii*)	-/SC/-/-	Found in shrubland, open grassland, and scrub habitats with flowering plants for foraging, particularly open flowers with short corollas. In California, it is most commonly associated with the plant families Fabaceae, Asteraceae, Lamiaceae, and Boraginaceae. Occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. It has also been documented in southwest Nevada, near the California border, and in Mexico	HA	No suitable open grassland or scrub habitats occur within the BSA. The ruderal land cover type within the BSA is highly disturbed, disked regularly for roadside maintenance, and is composed primarily of non-native species that do not contain open flowers. The nearest record of occurrences is approximately 4.5 miles southwest of the BSA and is from 1933; it has since been extirpated from development.

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
		(Baja California and Baja California Sur). It was historically common in the southern two-thirds of California, but now appears to be absent from most of it, especially in the center of its historic range.		
Delhi Sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*)	E/-/-/MSHCP	Found within 12 disjunct locations within the cities of Colton, Rialto, and Fontana. Only found in areas with Delhi sands and is typically associated with the following native plants: California buckwheat (*Eriogonum fasciculatum*), telegraph weed (*Heterotheca grandiflora*), and California croton (*Croton californica*). Low tolerance to disturbances.	HA	No Delhi sands are present within the BSA and the closest mapped Delhi sands are located approximately 2.25 miles away, outside of what might be expected to be carried by winds. MSHCP: The project does not occur within a MSHCP Delhi Sands Survey Area. As such, no MSHCP-specific surveys are required for this species and no further action is necessary.
Fish				
Santa Ana Sucker (*Catostomus santaanae*)	T/CSC/-/ MSHCP	Occurs in stream channels with a mosaic of loose sand, gravel, cobble, and boulder substrates in riffles, runs, pools, and shallow sandy stream margins with cool, running water. Historical range included the Los Angeles, San Gabriel, and Santa Ana river drainage systems in southern California. An introduced population also occurs in the Santa Clara River drainage system.	HP	No suitable habitat is present within the project footprint. Suitable habitat occurs within portions of the BSA outside of the limits of disturbance within the Santa Ana River. The portion of the river located within the BSA lacks the necessary substrate and is generally not suitable for breeding, but does function for dispersal and possibly refuge and foraging. This species was recorded within the Santa Ana River portions of the BSA in 2001 from Hamner Avenue

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
				upstream to California Avenue. Both adults and juveniles were observed. Records of occurrence also occur approximately 3.3 miles upstream and 2.7 miles downstream in the Santa Ana River. MSHCP: This species is fully covered under the MSHCP and, as such, any potential impacts would be fully mitigated by the MSHCP. No MSHCP-specific surveys are required for this species and no further action is necessary.
Arroyo Chub (*Gila orcuttii*)	-/CSC/-/ MSHCP	Occur within warm, fluctuating streams and found within slow moving sections of stream containing sandy or muddy bottoms. In Riverside County, occurs within the Santa Ana and Santa Margarita river tributaries.	HP	No suitable habitat is present within the project footprint. Suitable habitat occurs within portions of the BSA outside of the limits of disturbance within the Santa Ana River. The nearest occurrence records are approximately 7 miles upstream in the Santa Ana River and approximately 6 miles downstream in Temescal Creek, a tributary of the Santa Ana River. MSHCP: This species is fully covered under the MSHCP and, as such, any potential impacts would be fully mitigated by the MSHCP. No MSHCP-specific surveys are required for this species and no further action is necessary.

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
Steelhead, Southern California Coast Distinct Population Segment (*Oncorhynchus mykiss irideus*)	E/CSC/-/-	An anadromous fish that has physiological tolerances to warm water and changing conditions. Populations known from San Mateo Creek in San Diego County.	A	The BSA occurs within the historical range of this species. However, it is outside of the known geographical distribution of steelhead and is not currently occupied due to the Prado Dam located 6 miles downstream of the project, which makes the Santa Ana River impassible upstream of the dam.
Reptiles				
Southern California Legless Lizard (*Anniella stebbinsi*)	-/CSC/-/-	Occurs in sandy or loose loamy soils with high moisture content under sparse vegetation. Often found in leaf litter and under surface objects. Suitable habitat includes chaparral, coastal dunes, coastal scrub, broad-leaved upland forest, sandy washes, alluvial fans, and stream terraces with sycamores, cottonwoods, or oaks.	HP	No suitable habitat is present within the project footprint. Suitable habitat is present in portions of the BSA outside of the limits of disturbance within the Freemont Cottonwood Forest habitat associated with the Santa Ana River floodplain. Two records of occurrence from 2016 occur approximately 8.5 miles upstream from the BSA.
San Diego Banded Gecko (*Coleonyx variegatus abbotti*)	-/CSC/-/ MSHCP	Found in granite or rocky outcrops within coastal scrub and chaparral habitats along coastal and cismontane southern California from interior Ventura County south.	HA	Suitable scrub habitats and rock formations do not exist within the BSA. MSHCP: This species is fully covered by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
Red-diamond Rattlesnake (*Crotalus ruber*)	-/CSC/-/ MSHCP	Inhabits desert scrub, thornscrub, open chaparral, and woodland; occasionally found in grassland and cultivated areas.	HA	Suitable habitat is absent from the BSA. Rocky outcrops with densely vegetated

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
		Prefers areas with boulders and rocky outcrops and dense vegetation. Occurs in Morongo Valley in San Bernardino and Riverside counties to the west and south into Mexico. Known elevation range is sea level to just under 15,000 ft. amsl, but apparently rare above 3,940 ft. amsl.		scrub areas are not present. MSHCP: This species is fully covered by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
Western Pond Turtle (*Emys marmorata*)	-/CSC/-/ MSHCP	Found in association with permanent or nearly permanent water in a fairly wide variety of habitat types. It requires basking sites, such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks.	HA	The BSA lacks deep-bottomed pools, adequate refugia, and riverine areas with suitable food. MSHCP: This species is fully covered by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
Coast Horned Lizard (*Phrynosoma blainvillii*)	-/CSC /-/ MSHCP	Found in arid and semi-arid climate conditions in chaparral and coastal sage scrub habitats, primarily below 2,000 ft. amsl in elevation. Critical factors are the presence of loose soils with a high sand fraction; an abundance of native ants or other insects, especially harvester ants (*Pogonomyrmex* spp.); and the availability of both sunny basking spots and dense cover for refuge.	HA	Suitable arid habitats do not exist within the BSA. MSHCP: This species is fully covered by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
Birds				
Tricolored Blackbird (*Agelaius tricolor*)	-/CSC/-/ MSHCP	Occurs in open country in western Oregon, California, and northwestern	HP	No suitable habitat is present within the project footprint. Marginally suitable

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
		Baja California. Breeds near freshwater, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow (*Salix* spp.), blackberry (*Rubus* spp.), wild rose (*Rosa* spp.), tall herbs and forages in grassland and cropland habitats. Seeks cover for roosting in emergent wetland vegetation, especially cattails (*Typha* spp.) and tules (*Scirpus* spp.), and also in trees and shrubs.		habitat is present within portions of the BSA outside of the limits of disturbance within the emergent wetland habitat associated with the Santa Ana River. Two records of occurrence occur approximately 1.5 miles southwest of the BSA. However, they are from 1950 and 1952; surveys conducted in the 2000's did not detect this species. MSHCP: This species is fully covered by the MSHCP and, as such, any potential impacts would be fully mitigated by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
Burrowing Owl (*Athene cunicularia*)	-/CSC/-/ MSHCP(c)	Inhabits open, dry, nearly or quite level, grassland, prairie, desert floor, and shrubland habitats. Areas should be considered potential habitat if shrub cover is below 30% (CBOC 1997). In coastal southern California, a substantial fraction of birds are found in microhabitats highly altered by man, including flood control and irrigation basins, dikes, and banks, abandoned fields surrounded by agriculture, and road cuts and margins. There is a strong association between Burrowing Owls and burrowing mammals, especially ground squirrels (*Spermophilus* spp.); however, they will also occupy man-	HP	Suitable habitat is found within the BSA. However, this species was not observed during protocol surveys conducted for the project in 2019, nor during protocol surveys performed for the Hamner Avenue Bridge Replacement Project in 2017. MSHCP: The project occurs within the MSHCP Survey Area for this species. As such, MSHCP-specific surveys are required.

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
		made niches such as banks and ditches, piles of broken concrete, and even abandoned structures (Haug et al. 1993).		
Swainson's Hawk (*Buteo swainsoni*)	-/T/-/MSHCP	Suitable breeding habitat consists of areas containing Joshua trees, Fremont cottonwoods, or other large trees located adjacent to open fields, including agricultural fields. Forages in open desert, grasslands, agricultural fields, or livestock pastures.	Nesting: A Foraging: HA	This species does not nest in southern California outside of the Antelope Valley. In all other areas it is strictly a migrant passing through on its way to northern breeding grounds or southern wintering grounds. MSHCP: This species is fully covered by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*)	T/E/-/ MSHCP(a)	Breeds and nests in extensive stands of dense, mature cottonwood/willow riparian forest along broad, lower flood bottoms of larger river systems at scattered locales in western North America. Requires large stands of riparian woodland for nesting sites, typically in excess of 300 feet in width and 25 acres in area.	Nesting: HA Foraging: HP	No suitable habitat is present within the project footprint. Suitable foraging habitat is present within portions of the BSA outside of the limits of disturbance within the Fremont Cottonwood Forest associated with the Santa Ana River floodplain. Suitable nesting habitat does not exist within the BSA. This portion of the Santa Ana River is too narrow and lacks large enough stands of riparian habitat to support this species, which requires large nesting territories. The

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
				closest suitable riparian habitat exists within the Prado Reservoir approximately 3.5 miles downstream of the BSA, where the species has not been known to nest for the last several years. MSHCP: This species is a Riparian/Riverine Area and Species-Specific Objectives species. No suitable nesting habitat is present within the study area. Therefore, there is no MSHCP-survey requirement and no further action is necessary.
Yellow Rail (*Coturnicops noveboracensis*)	-/CSC/-/-	Found in shallow marshes and wet meadows. During the winter, they are found in drier fresh-water and brackish marshes and deep grass and rice fields.	A	Not expected to occur in the BSA. Although suitable habitat is present within portions of the BSA outside of the limits of disturbance within suitable habitat in association with the Santa Ana River floodplain, the BSA is outside of the current known range of the species. The only known record of occurrence within the region is from the early 1900's and the area has since been converted to residential development.
Southwestern Willow Flycatcher (*Empidonax traillii extimus*)	E/E/-/ MSHCP(a)	Highly restricted distribution in southern California as a breeder. It occupies extensive riparian forests, wet meadows, and lower montane riparian habitats primarily below 4,000 ft. amsl. Occurs in riparian habitats along rivers, streams, or other wetlands, where dense	HP	No suitable habitat is present within the project footprint. Suitable nesting and foraging habitat is found within portions of the BSA outside of the limits of disturbance in the riparian habitats along the Santa Ana River. However, this species was not observed during

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
		growths of willows (*Salix* spp.), *Baccharis* spp., Arrowweed (*Pluchea* spp.), buttonbush (*Cephalanthus* spp.), tamarisk (*Tamarix* spp.), Russian olive (*Eleagnus* spp.), or other plants are present, often with a scattered overstory of cottonwood (*Populus* spp.).		protocol surveys conducted in 2017. MSHCP: This species is a Riparian/Riverine Area and Species-Specific Objectives species. As such, MSHCP-specific surveys are required.
Yellow-breasted Chat (*Icteria virens*)	-/CSC/-/ MSHCP	Nests in low thickets in dense riparian habitats. It eats a variety of invertebrates. It is a local and uncommon breeder across southern California.	HP	No suitable habitat is present within the project footprint. Suitable nesting and foraging habitat is found within portions of the BSA outside of the limits of disturbance in the riparian habitats along the Santa Ana River. This species was observed during 2017 field surveys for the Hamner Avenue Bridge Replacement Project and presumably nested within the riparian habitat along the Santa Ana River based on its continued presence throughout three months of the 2017 least Bell's vireo surveys. MSHCP: This species is fully covered by the MSHCP and, as such, any potential impacts would be fully mitigated by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
California Black Rail	-/T, FP/-/-	Found in salt marshes, freshwater marshes, and wet meadows. Requires	A	Not expected to occur in the BSA. Although suitable habitat is present

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
(*Laterallus jamaicensis coturniculus*)		water depths of about 1 inch that do not fluctuate and dense vegetation for nesting. Most California populations, especially in the southern part of the state, are nonmigratory, and these habitat types serve for breeding, foraging, and overwintering. In tidal areas, also requires dense cover of upland vegetation to provide protection from predators when rails must leave marsh habitats during high tides.		within portions of the BSA outside of the limits of disturbance within suitable habitat in association with the Santa Ana River floodplain, the BSA is outside of the current known range of the species. All records of occurrence within the region are from the late 1800's and early 1900's.
Coastal California Gnatcatcher (*Polioptila californica californica*)	T/CSC/-/ MSHCP	Year-round obligate, permanent resident of coastal sage scrub vegetation on mesas, arid hillsides, and in washes. Nests almost exclusively in California sagebrush. Occurs in low-lying foothills and valleys in cismontane southwestern California and Baja California.	HA	No suitable coastal sage scrub habitat occurs within the BSA. MSHCP: This species is fully covered by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
Yellow Warbler (*Setophaga petechia*)	-/CSC/-/ MSHCP	Nests in the upper story of riparian habitats in southern California. It is also a common, widespread migrant in spring and fall, occupying a wide variety of habitats at that time.	HP	No suitable habitat is present within the project footprint. Suitable nesting and foraging habitat is found within portions of the BSA outside of the limits of disturbance in the riparian habitats along the Santa Ana River. This species was observed during 2017 field surveys for the Hamner Avenue Bridge Replacement Project and presumably nested within the riparian habitat along the Santa Ana River based on its continued presence throughout three months of the 2017 least Bell's vireo

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
				surveys. MSHCP: This species is fully covered by the MSHCP and, as such, any potential impacts would be fully mitigated by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
Least Bell's Vireo (*Vireo bellii pusillus*)	E/E/-/ MSHCP(a)	Found as a summer resident of southern California where it inhabits low riparian growth in the vicinity of water or in dry river bottoms below 2,000 ft. amsl. Species selects dense vegetation low in riparian zones for nesting; most frequently located in riparian stands between 5 and 10 years old; when mature riparian woodland is selected, vireos nest in areas with a substantial robust understory of willows, as well as other plant species (Goldwasser 1981).	HP	No suitable habitat is present within the project footprint. Suitable nesting and foraging habitat is found within portions of the BSA outside of the limits of disturbance in the riparian habitats along the Santa Ana River. This species nested within the riparian habitat along the Santa Ana River that occurs adjacent to the limits of disturbance during protocol surveys conducted in 2017 for the Hamner Avenue Bridge Replacement Project; eight territories were mapped within this portion of the Santa Ana River. MSHCP: This species is a Riparian/Riverine Area and Species-Specific Objectives species. As such, MSHCP-specific surveys are required.
Mammals				
Stephens' Kangaroo Rat (*Dipodomys stephensi*)	E/T/-/MSHCP	Found almost exclusively in open grasslands or sparse shrublands with cover of less than 50% during the	HA	No suitable grassland or shrub habitat is present within the BSA.

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
		summer. Avoids dense grasses and is more likely to inhabit areas where the annual forbs disarticulate in the summer and leave more open areas. Typically found in sandy and sandy loam soils with low clay to gravel content for burrowing; will sometimes utilize the burrows of other mammals. Tends to avoid rocky soils. In general, the highest abundances of species occur on gentle slopes less than 15%.		MSHCP: This species is fully covered by the MSHCP. No MSHCP-specific surveys are required and no further action is necessary.
California Western Mastiff Bat (*Eumops perotis californicus*)	-/CSC/-/-	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in the crevices in vertical cliff faces, high buildings, and tunnels and travels widely when foraging.	HP	Marginally suitable foraging and roosting habitat is present within the BSA. This species was recorded roosting in the BSA in 1993 within the roof tiles of Norco City Hall located just south of Alhambra Street. However, development within the area, animal control, and roof replacement may have displaced this roost.
Western Yellow Bat (*Lasiurus xanthinus*)	-/CSC/-/-	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms.	HP	Suitable roosting and foraging habitat is present within the BSA, particularly in the palm trees throughout the study area.
Pocketed Free-tailed Bat (*Nyctinomops femorosaccus*)	-/CSC/-/-	Found rarely in southwestern California; found in southeastern deserts of California, with portions of western Riverside County apparently on the periphery of their range. Species roost in high rock crevices, bridges, roofs,	HP	Potential roosting and foraging habitat is present. However, the BSA does not contain this species preferred habitat and occurrences are rare in the area, so this species is unlikely to occur.

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
		buildings, and cliffs, and forage primarily on large moths, especially over water. Habitats are arid.		
Habitats of Concern (Depleted Natural Communities)				
Southern California Arroyo Chub/Santa Ana Sucker Stream	CNDDB	n/a	P	Habitat occurs within the BSA outside of the project limits of disturbance.
Southern Cottonwood Willow Riparian Forest	CNDDB	n/a	P	Habitat occurs within the BSA outside of the project limits of disturbance.
Southern Sycamore Alder Riparian Woodland	CNDDB	n/a	A	This community does not occur within the BSA.
[a] Status Codes **Federal** E = Federally listed; Endangered PE = Proposed Endangered T = Federally listed; Threatened FC = Federal Candidate for Listing FSC = Federal Species of Concern D = Delisted **State** T = State listed; Endangered E = State listed; Threatened SC = State Candidate for Listing		**Multiple Species Habitat Conservation Plan (MSHCP)** MSHCP = No additional action necessary MSHCP(a) = Surveys may be required as part of wetlands mapping MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area MSHCP(c) = Surveys may be required within locations shown on survey maps MSHCP(d) = Surveys may be required within Criteria Area MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met	**California Rare Plant Ranks (CRPR)** 1A = Plants presumed extinct in California 1B = Plants rare, threatened, or endangered in California and elsewhere 2 = Plants rare, threatened, or endangered in California, but more common elsewhere 3 = Plants about which we need more information 4 = Limited distribution (Watch List) 0.1 = Seriously endangered in California 0.2 = Fairly endangered in California 0.3 = Not very endangered in California CNDDB = Vegetation communities classified as depleted	

Common/Scientific Name	Status Federal/ State/ CRPR/ MSHCP[a]	Species Requirements	Specific Habitat Present/ Absent[b]	Rationale
R = Rare (Native Plant Protection Act) CSC = California Species of Special Concern FP = California Fully Protected Species		before classified as a Covered Species [b] Habitat Presence/Absence Codes P = The species is present. HP =Habitat is or may be present. The species may be present. HA = No habitat present and no further work needed. A = This species is absent.		

3.5.1 Burrowing Owl

All potentially suitable habitat to support burrowing owl within the BSA was examined during the habitat assessment in August 2019. Following the habitat assessment and burrow survey, four subsequent protocol burrowing owl surveys were conducted in August and September 2019 in areas throughout the BSA that contained suitable burrows and the potential to support burrowing owl (Figure 6, Appendix A). Potential suitability of burrows ranged from collapsed, too small, and covered with debris (e.g., leaves, trash, rocks) to high quality, open and clear burrows (Photos 9 – 11, Appendix C). The majority of the burrows were located on slopes between Hamner Avenue and the surrounding public parks, within the parks themselves, and within the vacant lot along Taft Street between Hamner Avenue and Old Hamner Avenue. Most of the burrows were either lacking vegetation or surrounded with maintained weedy vegetation, although some were surrounded by unmaintained, tall, weedy vegetation. California ground squirrel activity was high at the time of the habitat assessment and protocol surveys. Foraging habitat in the form of public maintained parks surrounds the burrow locations, except for the Santa Ana River floodplain, which has very tall riparian habitat. No burrowing owls or their sign were observed during the 2019 field surveys. The closest documented burrowing owls are located approximately 3–6 miles to the north, west, south, and east within agricultural lands, dairy farms, ruderal areas along flood control channels, and the Riverside Municipal Airport. The closest record of occurrence is approximately 2.5 miles to the west, but it has recently been extirpated by residential development (CDFW 2019). Because neither burrowing owl nor its sign was observed during protocol surveys, it is considered absent from the BSA.

3.5.2 Riparian Birds

Three listed riparian bird species are reported to occur within the USGS Corona North 7.5-Minute Topographic Quadrangle, which includes the BSA: least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo (Appendix B; CDFW 2019, USFWS 2020).

The habitat assessment for these species was conducted on April 26, 2019 and concluded that there is no suitable riparian habitat to support these species within the project footprint. However, there is suitable habitat for least Bell's vireo within the adjacent Fremont Cottonwood Forest/Black Willow Thickets located along the Santa Ana River within the BSA buffer for the north staging area outside of the project footprint and this species is known to nest in the area. Protocol surveys performed for the Bridge Replacement Project, portions of which overlap with the BSA for this project, documented one nesting territory within the 500-foot buffer for this project in the southern boundary in the strip of riparian habitat to the east of Hamner Avenue between the street and dirt lot (ICF 2018). Surveys found that least Bell's vireo attempted nesting in that location, but the territory was ultimately abandoned. Seven other territories were documented in the surrounding area, all of which were assumed or confirmed to be nesting in 2017. As such, least Bell's vireo is assumed to be present within the riparian habitat portions of the BSA for the north staging area outside of the project limits of disturbance.

Southwestern willow flycatcher and western yellow-billed cuckoo were determined to have an "absent" potential for occurrence within the BSA. Potential habitat to support southwestern willow flycatcher occurs within the riparian portions of the BSA outside of the project footprint, but this species was determined to be absent based on 2017 protocol surveys performed for the Bridge Replacement Project. The closest records of occurrence within the area are approximately 4.5 miles

downstream of the BSA within the Prado Reservoir from the late 1980's and early 1990's. No nearby records of occurrences have been reported within the last 20 years (CNDDB 2019). Suitable nesting habitat for western yellow-billed cuckoo does not exist within the BSA. The portion of the Santa Ana River within the BSA is too narrow and lacks large enough stands of riparian habitat to support this species, which requires large nesting territories. The closest suitable riparian habitat for this species exists within the Prado Reservoir approximately 3.5 miles downstream of the BSA, where the species has not been known to nest for the last several years (CNDDB 2019). As such, no further surveys are necessary to determine presence or absence of southwestern willow flycatcher or western yellow-billed cuckoo.

In addition, two non-listed special-status riparian birds (yellow warbler [*Setophaga petechia*] and yellow-breasted chat [*Icteria virens*]) were observed during 2017 field surveys for the Bridge Replacement Project. Both species were presumed nesting within the riparian habitat along the Santa Ana River based on their continued presence throughout the three months of the 2017 least Bell's vireo surveys (ICF 2018).

3.6 Federal and State Jurisdictional Resources

No potentially jurisdictional aquatic resources occur within the aquatic resources study area (i.e., project limits of disturbance plus 100-foot buffer). As such, a jurisdictional delineation was not performed for the project.

3.7 Conservation Lands

3.7.1 Critical Habitat

Based on a review of the USFWS Critical Habitat mapper (USFWS 2019), the BSA occurs within USFWS designated critical habitat for least Bell's vireo and Santa Ana sucker (Figure 9, Appendix A). However, the project site is composed entirely of developed and ruderal land cover types and no critical habitat containing Physical and Biological Features (PBFs) is present within the project limits of disturbance. The only critical habitat containing PBFs for either species within the BSA is located along the Santa Ana River floodplain outside of the project footprint.

3.7.2 WRC MSHCP

The project involves an existing facility and therefore is a Covered Activity within the MSHCP boundaries of the Eastvale Area Plan (Subunit 1: Santa Ana River – Central) and the Cities of Riverside/Norco Area Plan (Subunit 1: Santa Ana River – South) (Dudek 2003). The Schleisman Road to Citrus Street Segment occurs within portions of Criteria Cell 786 and the Detroit Street to 6th Street/Norco Drive Segment occurs within portions of Criteria Cell 876. PQP conserved lands (Object ID 605 and 553) and Existing Core A is present within the BSA outside of the project limits of disturbance along the Santa Ana River (Figures 7a & 7b, Appendix A).

Portions of the project also occur in the following MSHCP survey areas (Figure 7a, Appendix A):

- Narrow Endemic Survey Area 7: San Diego ambrosia, San Miguel savory, Brand's phacelia

- Burrowing Owl Survey Area

Although survey areas for least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo are not provided by the MSHCP, if potential habitat is present and potential direct and/or indirect effects could occur, then focused surveys would be necessary. Because no riparian habitat is present within the project limits of disturbance or adjacent areas, focused surveys were not performed for this project. However, riparian bird habitat assessments and focused surveys for least Bell's vireo and southwestern willow flycatcher were performed for the Bridge Replacement Project.

A full review of potential riparian/riverine and vernal pool resources was also performed for the project, as required by the MSHCP. No vernal pool resources or suitable habitat to support fairy shrimp are present within the BSA. Approximately 12.78 acres of riparian/riverine resources (i.e., Fremont Cottonwood Forest/Black Willow Thickets, Mulefat Thickets, California Bulrush Marsh, and Open Water) are present outside of the project limits of disturbance within the buffer of the northern staging area within the Santa Ana River floodplain and within the earthen flood control channel on the west side of Hamner Avenue (Figure 7b, Appendix A).

3.7.3 NMFS

The proposed project is located in the Corona North quadrangle, which is within the National Marine Fisheries Service (NMFS) jurisdictional boundary. A query of the California NMFS Species List Tool for this project indicates that the Corona North quadrangle possibly contains NMFS resources for steelhead, Southern California Coast Distinct Population Segment (federally-listed as endangered; NMFS-WCRC 2019). However, none of the species under the jurisdiction of NMFS are listed on the USFWS Official Species List generated for the project, including steelhead (Appendix B; USFWS 2020). The USFWS Official Species List will generally include anadromous fish and sea turtles, both of which are under the jurisdiction of NMFS, if potential NMFS resources are present. For this reason, a NMFS species list was not obtained from NMFS for the project and NMFS species will not be affected.

Chapter 4
Project Impacts, Permits, and Technical Studies

The following discussions address potential project impacts on biological resources and any permits and/or technical studies that may be required as a result of project implementation.

4.1 Vegetation Communities/Land Use Types

The project would result in permanent and temporary impacts to land use types within the study area through disturbance and/or removal of existing vegetation (Table 6; Figure 4, Appendix A). The project would permanently remove and temporarily disturb Developed, Ruderal, and Annual Brome Grasslands vegetation communities and land use types from the BSA; no native vegetation communities would be impacted. Permanent impacts may include the removal of existing vegetation and encroachment into the vegetation communities that may have permanent effects. Temporary impacts may include incidental disturbances within construction areas, equipment staging, and temporary construction access routes.

Table 6. Impacts to Vegetation Communities/Land Use Types within the BSA

Vegetation Community/Land Use	Temporary (acres)	Permanent (acres)
Developed	6.38	6.96
Ruderal	3.58	--
Annual Brome Grasslands	0.02	0.04
Fremont Cottonwood Forest/Black Willow Thickets	--	--
Mulefat Thickets	--	--
California Bulrush Marsh	--	--
Open Water	--	--
Total	**9.98**	**7.00**

"--" indicates no impact.

4.1.1 Sensitive Vegetation Communities

Three sensitive vegetation communities as defined by CDFW occur within the project vicinity: Fremont Cottonwood Forest/Black Willow Thickets, Mulefat Thickets, and California Bulrush Marsh (CDFW 2019b, Holland 1986). None of these sensitive vegetation communities exist within the project footprint; as such, no direct impacts would occur (Table 6). In addition, because the only sensitive vegetation communities within the BSA are located adjacent to the northern staging area, which is a gravel parking lot, and no ground disturbance would occur, no indirect edge effects or degradation of these communities are anticipated. Additionally, avoidance and minimization measures that are non-specific to biological resources, such as Best Management Practices,

Hazardous Business Materials Plan, and Stormwater Pollution Prevention Plan, will be included in the construction contractor documents. These additional measures, though not specific to biological resources, will help reduce any potential indirect impacts on vegetation communities and land cover types within the BSA, including dust control, measures to reduce fire risk, erosion and runoff control, pollution prevention, and containment of trash and litter. No further action is required.

4.2 Special-Status Plants

Ruderal and Annual Brome Grasslands habitat are the only vegetation community/land cover type within the rare plant study area (i.e., project limits of disturbance plus 100-foot buffer) that have a potential to support special-status plant species (the riparian habitat within the project BSA occurs outside of the rare plant survey area). No federally and/or state threatened and/or endangered plant species have a potential to occur within the BSA. One non-listed special-status plant species (paniculate tarplant [*Deinandra paniculata*]) has a potential to occur within the rare plant study area. However, the habitat is of marginal quality due to a dominance of non-native, invasive plant species; no quality scrub or grassland habitats exist within the rare plant study area. In addition, the majority of the patches of Ruderal and Annual Brome Grasslands habitat occur along Hamner Avenue and are disked regularly for roadside maintenance, so potential to occur is low. Furthermore, no special-status plant species were detected within the rare plant study area during the focused rare plant survey. Consequently, special-status plant species are considered absent from the rare plant study area and no further surveys are necessary (see Table 5; CDFW 2019, CNPS 2019).

4.3 Special-Status Wildlife

One federally and state-listed endangered wildlife species, least Bell's vireo, and six non-listed special-status wildlife species (burrowing owl, yellow warbler, yellow-breasted chat, California western mastiff bat [*Eumops perotis californicus*], western yellow bat [*Lasiurus xanthinus*], and pocketed free-tailed bat [*Nyctinomops femorosaccus*]) have a potential to occur within the BSA and could potentially be impacted by the project; these species are discussed in the subsections below. Two federally and state-listed riparian bird species, southwestern willow flycatcher and western yellow-billed cuckoo, were determined to be absent during the habitat assessment and field surveys; these species are discussed below. In addition, four special-status wildlife species (Santa Ana sucker, arroyo chub [*Gila orcuttii*], southern California legless lizard [*Anniella stebbinsi*], and tricolored blackbird [*Agelaius tricolor*]) have a potential to occur within the 500-foot BSA buffer for the northern staging area, which is currently regularly utilized. However, suitable habitat to support these species only exists outside of the project limits of disturbance within the Santa Ana River floodplain (see Figure 4, Appendix A). They do not have any potential to occur within or near the project limits of disturbance where construction activities would occur. The staging area would only be used for parking construction equipment and vehicles when not in use and the area is already used as a parking lot for the SilverLakes Sports Complex, so project use of the area would not be substantially different from existing conditions. As such, neither these species nor their suitable habitat (see Section 4.1.1.) would be impacted by the staging area, and thus, they are not discussed further. The remaining 12 special-status wildlife species were found to have no potential to occur or

to be absent within the BSA at the time of field surveys; no further studies are recommended and these species are not discussed further (see Table 5; CDFW 2019, USFWS 2020).

4.3.1 Burrowing Owl

Burrowing owl was not observed during protocol surveys within the BSA. As a result, the project will have no impacts on burrowing owl. However, although no burrowing owls were observed within the BSA, they could subsequently inhabit the BSA in areas that were previously determined to be unoccupied. Measure BIO-1 below would ensure there is no direct mortality of any burrowing owls and minimize potential impacts during construction should this species be present.

BIO-1 A 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities to ensure that no owls have colonized the site in the days or weeks preceding construction. If burrowing owls have colonized the project site prior to the initiation of construction, the project proponent should immediately inform the Western Riverside Regional Conservation Authority (RCA) and the wildlife agencies, and would need to coordinate further with RCA and the wildlife agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan. The Burrowing Owl Protection and Relocation Plan would be subject to the review and approval of the RCA and wildlife agencies prior to initiating ground disturbance. Potential measures may include establishing an avoidance buffer around active burrows, eliminating potential unoccupied burrows, and/or passive relocation.

4.3.2 Riparian Birds

The habitat assessment concluded that suitable habitat for least Bell's vireo was present in the riparian habitat within the BSA and that the species is known to nest in the area (ICF 2018). In addition, other riparian bird species have a potential to nest in the portions of the BSA containing riparian habitat outside of the project limits of disturbance (e.g., yellow warbler, yellow-breasted chat).

No riparian habitat occurs within the project limits of disturbance. As such, no clearing of riparian vegetation would occur and no injury or mortality of individual least Bell's vireo or other riparian birds are expected as a result of construction activities. Because the only riparian habitat within the BSA is located adjacent to the northern staging area, which is a parking lot buffered by an access road along the eastern edge, and no ground disturbance would occur, no edge effects or degradation of riparian habitat and/or water quality are anticipated. However, should any individuals be nesting within the riparian habitat adjacent to the staging area, then temporary direct impacts from noise disturbances and increased human presence could occur. If nighttime construction occurs and equipment is being moved in and out of the staging area during nighttime hours, then least Bell's vireo nesting in the area could be disturbed by night lighting. The direct effects from increased noise levels and night lighting could result in habitat avoidance and nest abandonment. However, implementation of Measures BIO-2 through BIO-4 would minimize potential impacts on least Bell's vireo or other riparian birds occurring adjacent to the project limits.

BIO-2 Prior to any construction activities occurring adjacent to least Bell's vireo foraging and breeding habitat areas during the breeding season (March 15–September 15), a qualified biologist will conduct preconstruction nesting surveys within three days prior to construction activities to identify the locations of any individual least Bell's vireo. If nesting

activities or active nests are discovered within the riparian habitat directly adjacent to the northern staging area, a buffer zone will be clearly marked in the field by construction personnel under the guidance of the biologist and no activities will occur within the buffer zone until the young have fledged or the nest is no longer active. If the designated biologist determines that activities within the staging area are disturbing or disrupting nesting activities, then they will notify the Resident Engineer, who has the authority to halt activity to reduce the noise and/or disturbance to the nests. Responses may include, but are not limited to, preventing idling of vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest and the construction activities, minimizing activities in the immediate vicinity, or working in other areas until the young have fledged.

BIO-3 Between March 15 and September 15, a biological monitor shall monitor at the edge of the northern staging area along riparian habitats to ensure noise levels do not result in a disruption to least bell's vireo or other riparian birds. If construction noise is negatively affecting nesting birds (e.g., a discernable negative change in behavior is observed, such as nest flushing or adults not immediately returning to the nest with prey) then activity shall cease in the immediate area (unless authorized by the wildlife agencies) until adequate noise barriers can be established to reduce noise levels at the edge of the riparian corridor. Noise barriers may include temporary noise blankets, noise shrouds, and/or sound walls. It may be most effective to construct noise barriers well prior to March 15 to ensure construction delays do not occur. All noise barriers will be constructed within the staging area boundaries.

BIO-4 To the extent feasible, no nighttime work will be conducted in areas adjacent to least Bell's vireo suitable habitat. If the work has to be performed during night time, then the lights will be shielded and/or directed away from the habitat to prevent light intrusion into the habitat area.

4.3.3 Nesting Birds

All developed and undeveloped portions of the BSA contain suitable nesting habitat (e.g., mature trees, shrubs) for a variety of avian species including, but not limited to, those species observed during the habitat assessment (Appendix E). Nesting bird surveys should be conducted prior to the start of any project construction during the nesting bird season (February 1–September 1).

BIO-5 If vegetation clearing is to occur during the breeding season for passerine birds (i.e., February 1–September 1) or raptors (i.e., January 1–September 1), the designated biologist will conduct a preconstruction survey of construction areas and an appropriate buffer no more than 72 hours prior to construction to identify the locations of avian nests. Should nests be found, an appropriate buffer will be established by a qualified biologist around each nest site. To the extent feasible, no construction will take place within this buffer until the nest is no longer active. In the event that construction must occur within the buffer areas, the designated biologist will ensure construction activities do not disturb or disrupt nesting activities. If the designated biologist determines that construction activities are disturbing or disrupting nesting activities, then they will notify the Resident Engineer, who has the authority to halt construction to reduce the noise and/or disturbance to the nests. Responses may include, but are not limited to, preventing idling of vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between

the nest and the construction activities, minimizing activities in the immediate vicinity, or working in other areas until the young have fledged. Nesting bird habitat within the BSA will be resurveyed during the breeding bird season if there is a lapse in construction activities longer than seven days.

4.3.4 Special-Status Bats

Potential roosting habitat for special-status bats occurs within the mature trees located along Hamner Avenue and within the Santa Ana River floodplain. If trimming or removal of trees is required as a part of the project, and should any bats be present at the time, then they could be injured or killed. In addition, construction activities could deter bats from foraging within the BSA due to construction-related disturbances, including noise from heavy equipment. However, these temporary impacts would be short term in nature. Measures BIO-6 and BIO-7 below would ensure that no direct take of bat species would occur.

BIO-6 A qualified bat biologist will survey the BSA prior to construction to assess the potential for maternity roosts in the BSA. The surveys may include a combination of structure and tree inspection, sampling, exit counts, and acoustic surveys.

BIO-7 If trimming or removal of mature trees and snags is necessary for project construction, trimming/removal activities should be performed outside of the general bat maternity season, which occurs from March 1st through October 1st, to avoid direct effects to nonvolant (flightless) young that may roost in trees within the study area. If trimming or removal of trees during the general bat maternity season cannot be avoided, a qualified biologist will monitor tree removal unless nighttime surveys conducted within one week of removal indicates no tree-roosting bat activity within the study area. Frond removal will follow a two-step process:

DAY 1: Contractor must only trim the outermost fronds (no more than 50 percent of the palm fronds) using chainsaws only (no dozers, backhoes, cranes, or other heavy equipment, other than to provide access for tree cutters using chainsaws).

DAY 2: The palm tree must be felled. Day 2 activities must occur the day immediately following the Day 1 activities.

To accomplish this, work may need to be phased and Day 1/Day 2 steps can be repeated. Should bats emerge during the tree trimming, trimming activities must temporarily cease at the individual tree until bats are no longer actively emerging from the tree.

4.4 Conservation Lands

4.4.1 Critical Habitat

No USFWS designated critical habitat containing PBFs for Santa Ana sucker or least bell's vireo is present within or adjacent to the project limits of disturbance; the only critical habitat containing PBFs for either species that occurs within the BSA is located along the Santa Ana River floodplain adjacent to the northern staging area (Figure 9, Appendix A). This staging area is a parking lot and would only be used for storing construction equipment and vehicles when not in use; no ground

disturbance or construction activities would occur in this location. Additionally, avoidance and minimization measures that are non-specific to biological resources, such as Best Management Practices, Hazardous Business Materials Plan, and Stormwater Pollution Prevention Plan, will be implemented for the project and will help reduce any potential edge effects or degradation of riparian habitat and/or water quality. Consequently, no impacts on designated critical habitat for Santa Ana sucker or least Bell's vireo are anticipated. No further action is required.

4.4.2 WRC MSHCP

In compliance with the MSHCP, habitat assessments were performed for riparian/riverine resources, vernal pools and fairy shrimp habitat, Narrow Endemic plant species, and burrowing owl. Based on survey results, suitable habitat was found to be present for Narrow Endemic plant species, least Bell's vireo, southwestern willow flycatcher, and burrowing owl and focused surveys for these species were conducted; surveys were consistent with MSHCP requirements.

No MSHCP conservation lands occur within the project limits of disturbance and none would be impacted by the project (Figures 7a & 7b, Appendix A). No construction activities would be performed within or near PQP lands, Existing Core A, riparian/riverine resources, or portions of Criteria Cells containing lands intended for preservation. The only project activity located adjacent to MSHCP conservation lands is the proposed staging area for the Schleisman Road to Citrus Street Segment (Figures 7a & 7b, Appendix A). Because this staging area is a gravel parking lot and would only be used for storing construction equipment and vehicles when not in use, no direct or additional indirect (because this area is already used to park vehicles) impacts would occur. Thus, project activities would not conflict with MSHCP conservation goals. The project site does not provide long-term conservation value for any MSHCP plant or wildlife species, including Covered Species or Criteria Area species, and none were detected within the BSA during field surveys (with the exception of least Bell's vireo during 2017 surveys for the Bridge Replacement Project, which would not be impacted by the project with the implementation of avoidance and minimization measures; see Section 4.3.2 above). No vernal pools or suitable habitat for fairy shrimp occur within the BSA. With the implementation of avoidance and minimization measures, the project would avoid impacts on all MSHCP resources and conservation lands and would be fully consistent with MSHCP requirements (Volume I, Sections 3.2.3, 6.1.2, 6.1.3, 6.1.4, 6.3.2, 7.5.1, 7.5.2, and 7.5.3, and Appendix C of the MSHCP document [Dudek 2003]). A Public Projects Joint Project Review Form documenting project consistency with the MSHCP will be prepared and submitted to RCA, USFWS, and CDFW to provide concurrency that the project is fully consistent with MSHCP requirements.

4.4.3 NMFS

There is no Essential Fish Habitat within the BSA (NMFS 2019). The proposed project is located in the Corona North quadrangle, which is within the NMFS jurisdictional boundary. A query of the California NMFS Species List Tool for this project indicates that the Corona North quadrangle possibly contains NMFS resources for steelhead, Southern California Coast Distinct Population Segment (federally listed as endangered; NMFS-WCRC 2019). However, none of the species under the jurisdiction of NMFS are listed on the USFWS Official Species List generated for the project, including steelhead (Appendix B; USFWS 2020). The USFWS Official Species List will generally include anadromous fish and sea turtles, both of which are under the jurisdiction of NMFS, if potential NMFS resources are present. For this reason, a NMFS species list was not obtained from

NMFS for the project and NMFS species will not be affected. No consultation has occurred and none is required.

Chapter 5
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Appendix A

Figures

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Figure 1
Regional Vicinity Map
Hamner Avenue Bridge Widening Project

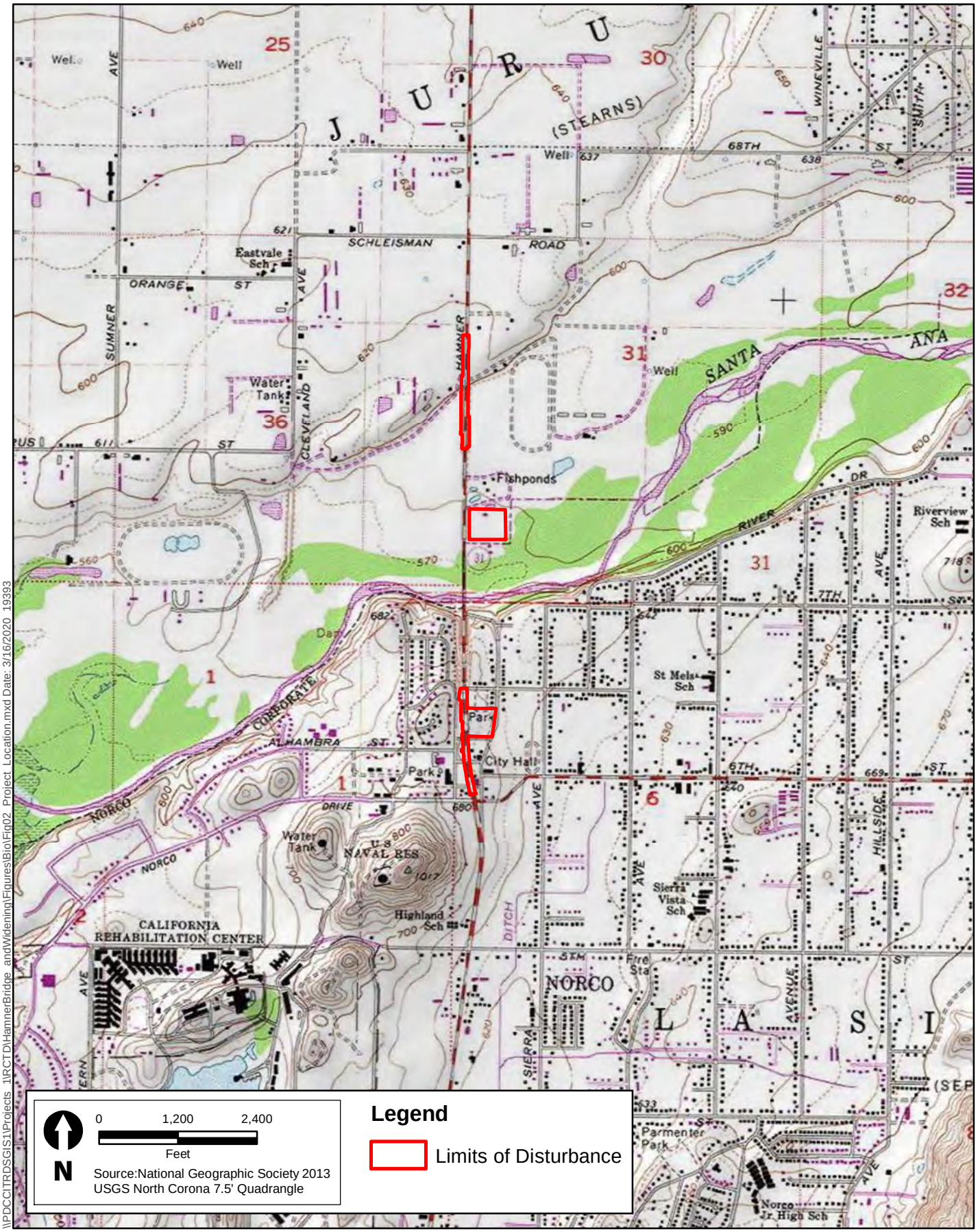

Figure 2
Project Location
Hamner Avenue Bridge Widening Project

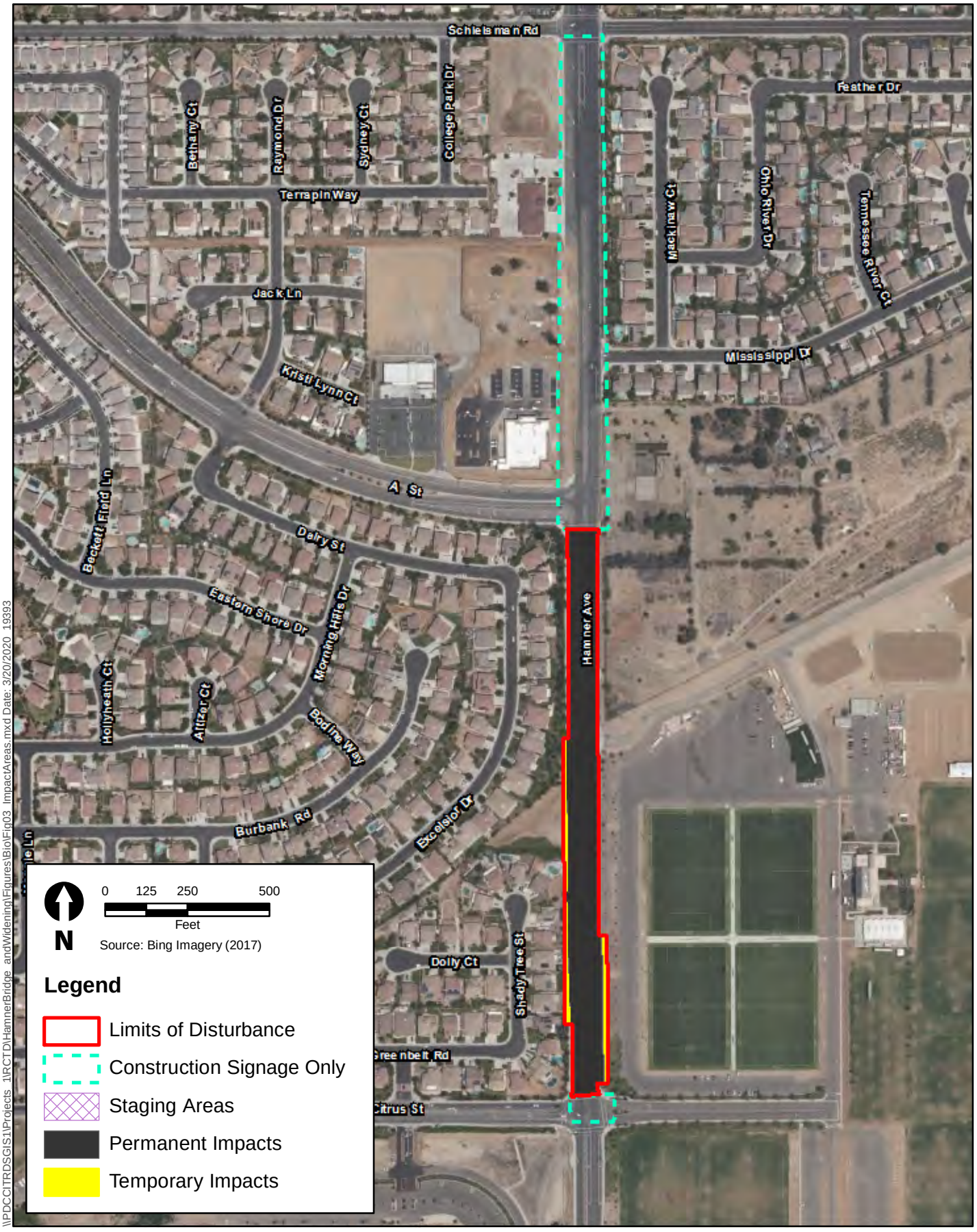

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Figure 3a
Project Impact Areas
Hamner Avenue Bridge Widening Project

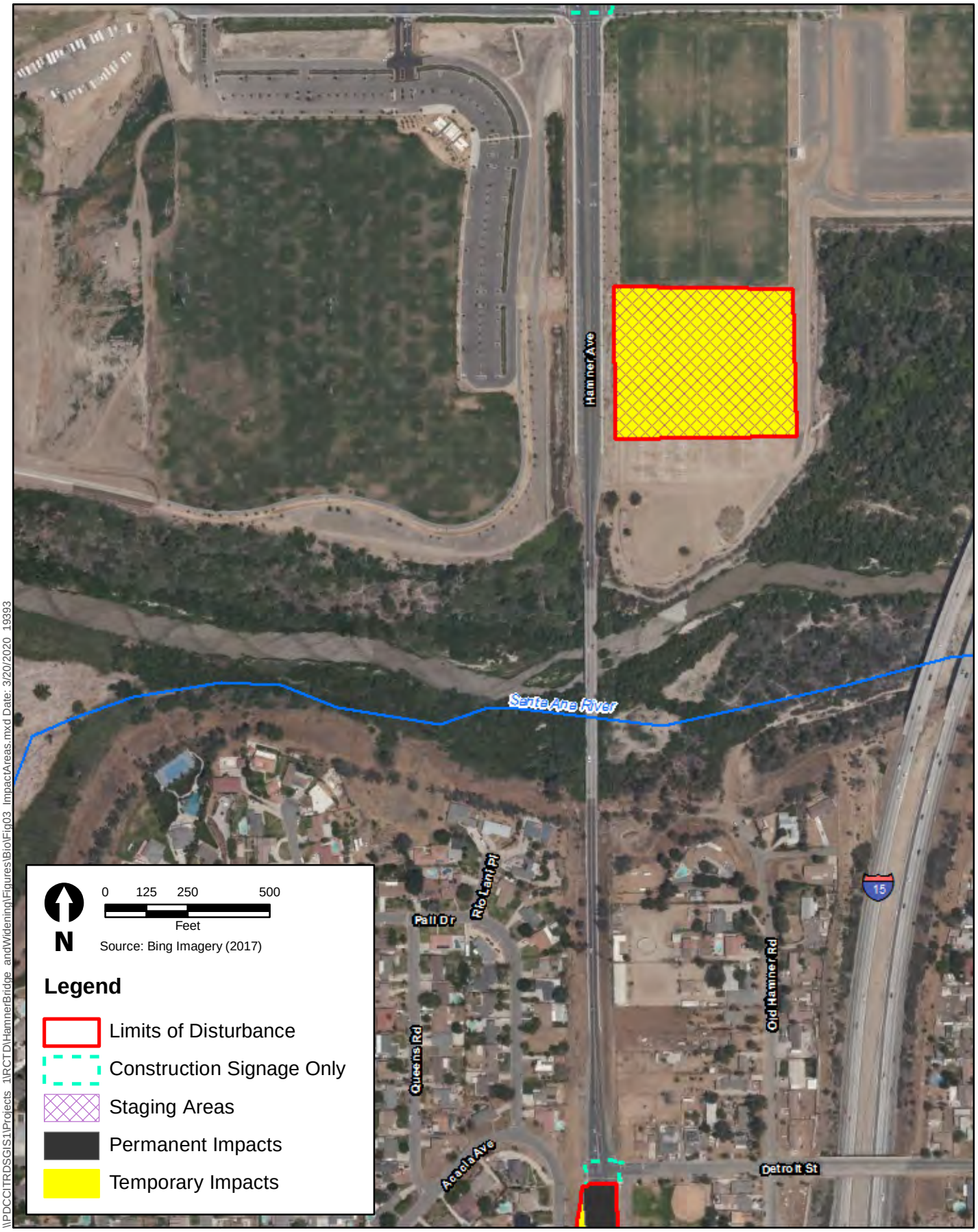

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Figure 3b
Project Impact Areas
Hamner Avenue Bridge Widening Project

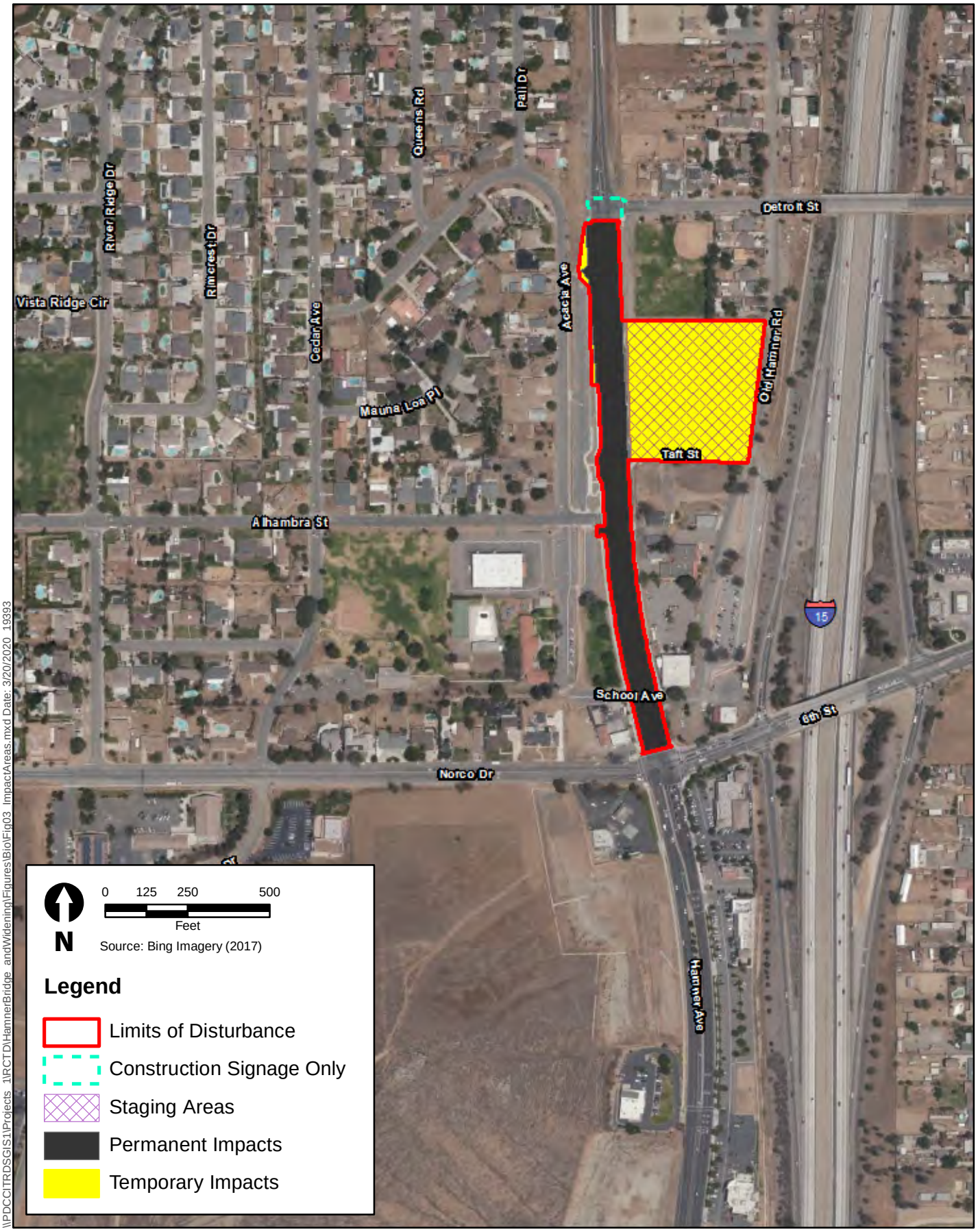

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Figure 3c
Project Impact Areas
Hamner Avenue Bridge Widening Project

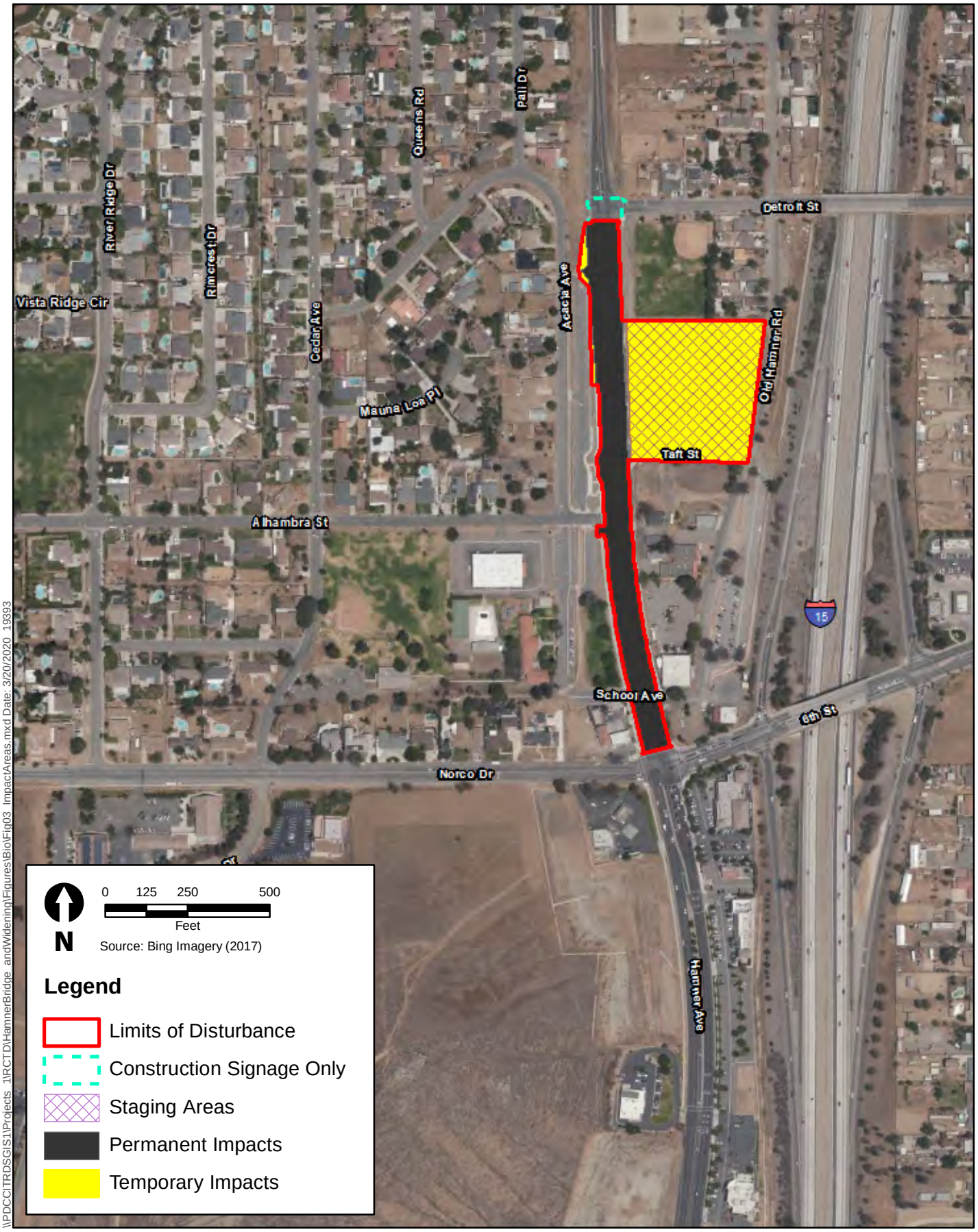

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Figure 3c
Project Impact Areas
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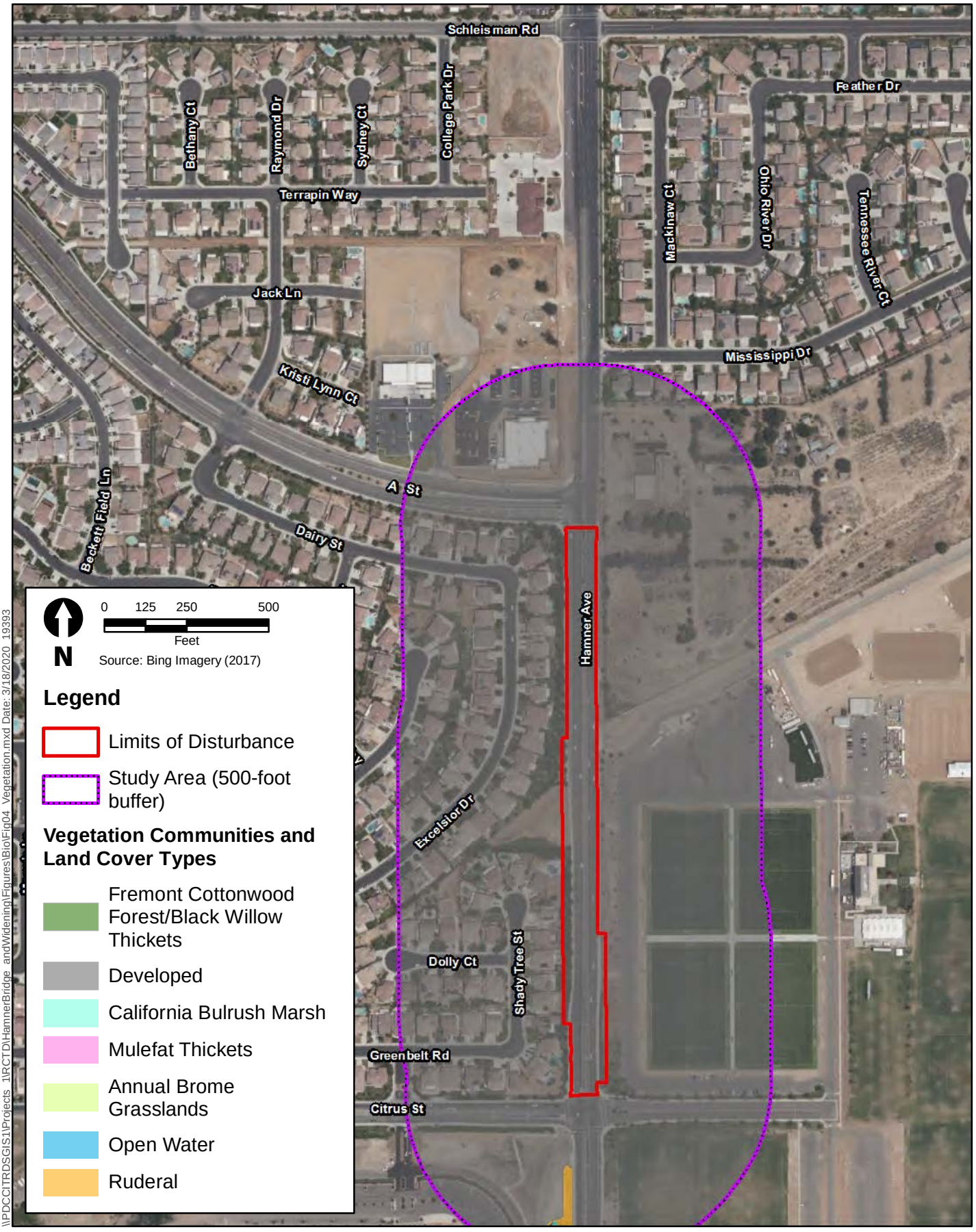

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Figure 4a
Vegetation Communities
Hamner Avenue Bridge Widening Project

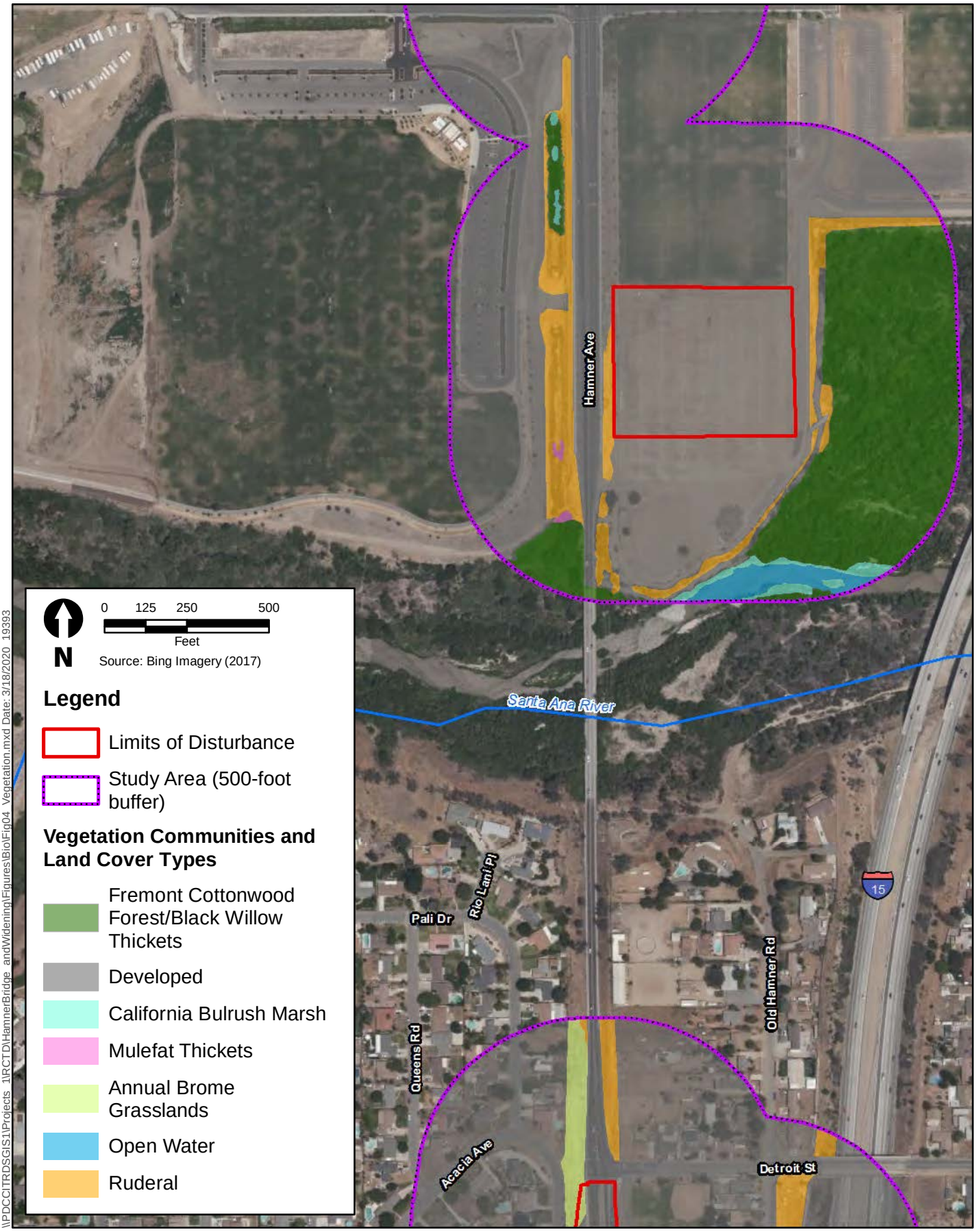

Figure 4b
Vegetation Communities
Hamner Avenue Bridge Widening Project

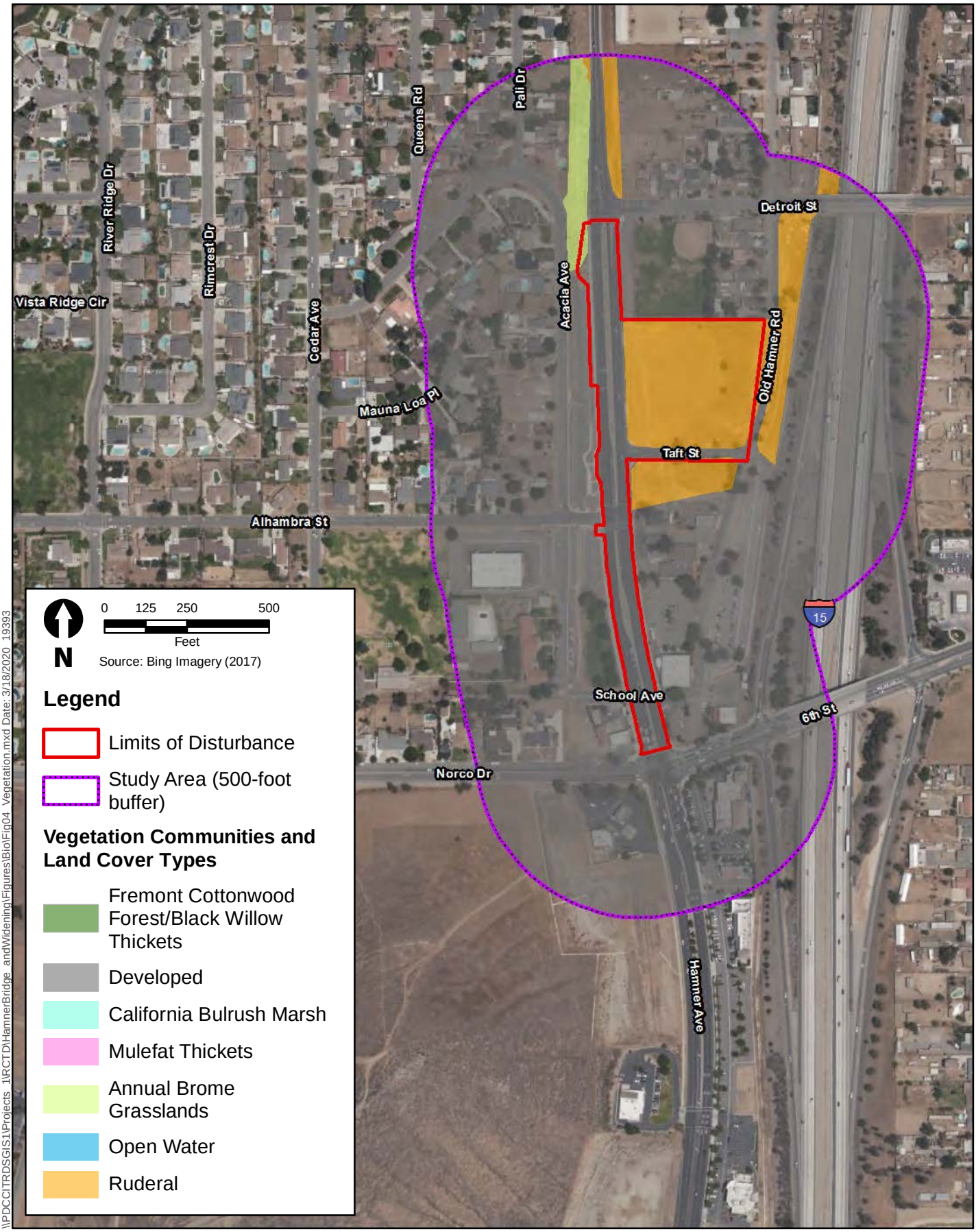

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Figure 4c
Vegetation Communities
Hamner Avenue Bridge Widening Project

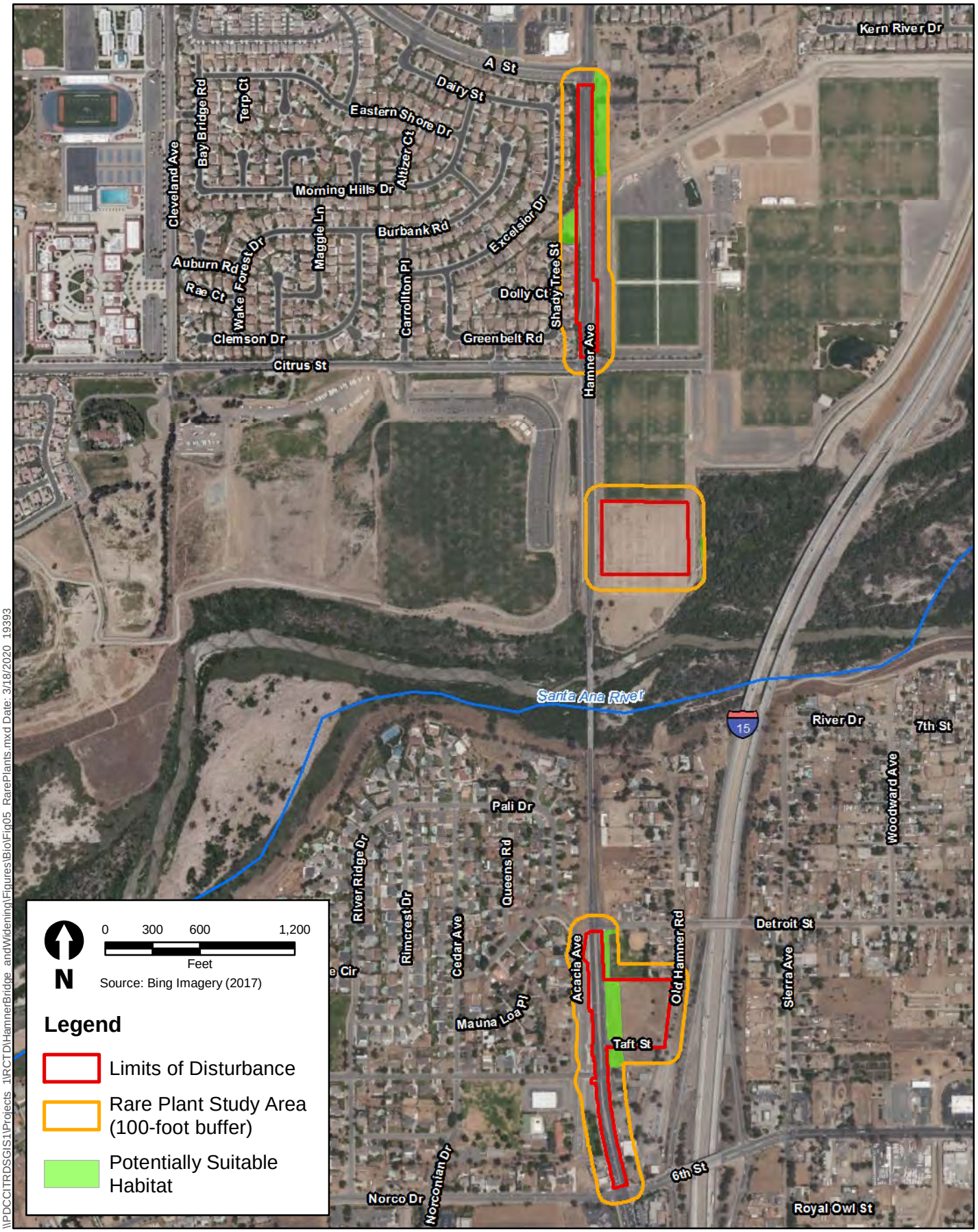

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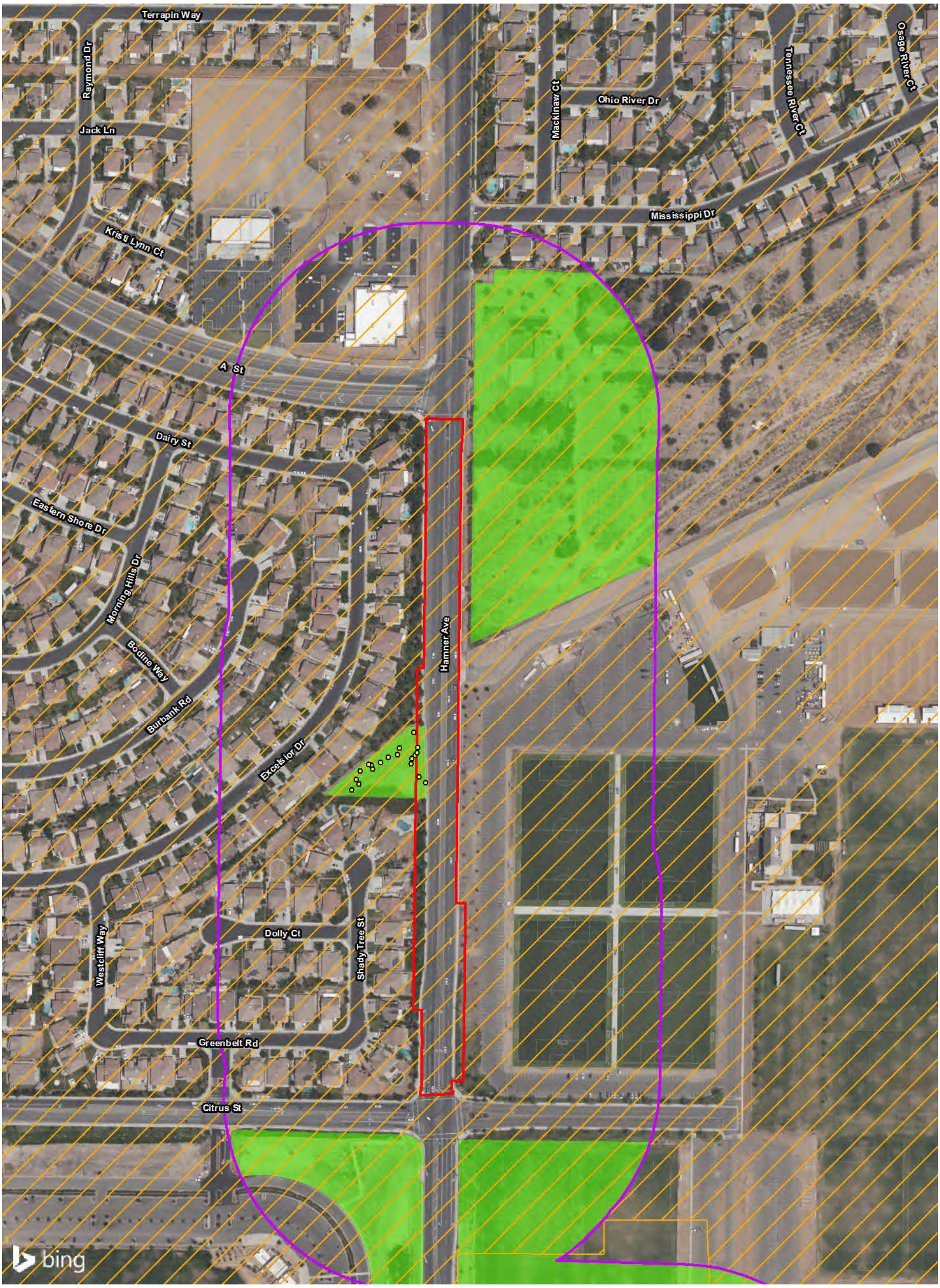
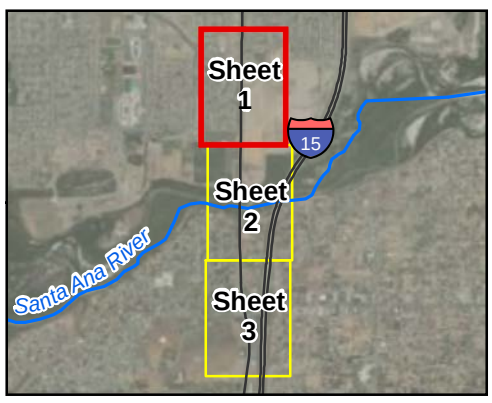
Figure 5
Rare Plant Focused Surveys
Hamner Avenue Bridge Widening Project



Legend

- Limits of Disturbance
- Burrowing Owl Survey Area (500-foot buffer)
- MSHCP - Burrowing Owl Survey Area
- Potentially Suitable Habitat
- Potential Burrowing Owl Burrow Complex
- Potential Burrowing Owl Burrow



Source: Riverside County (2019); Bing Imagery

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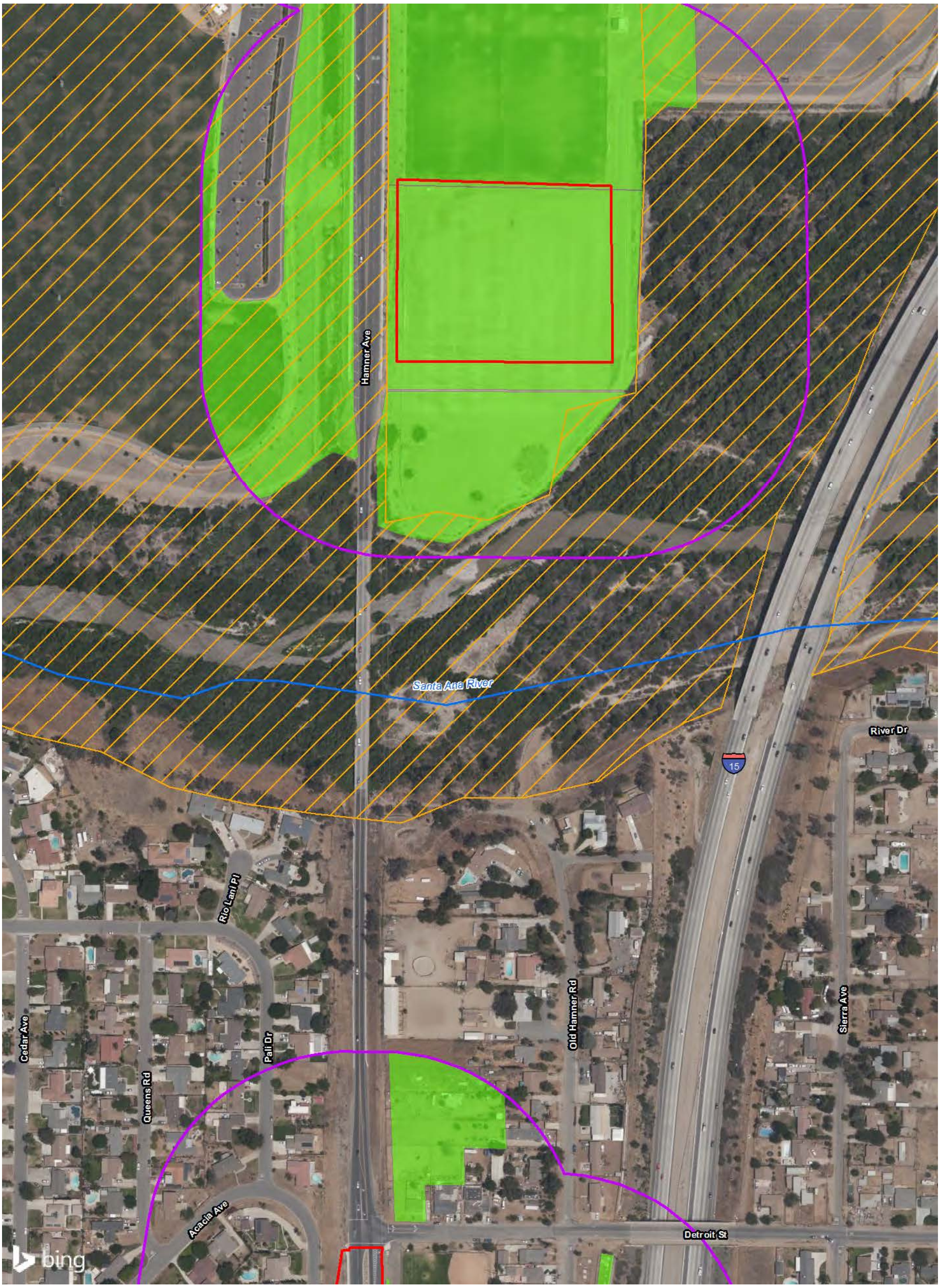
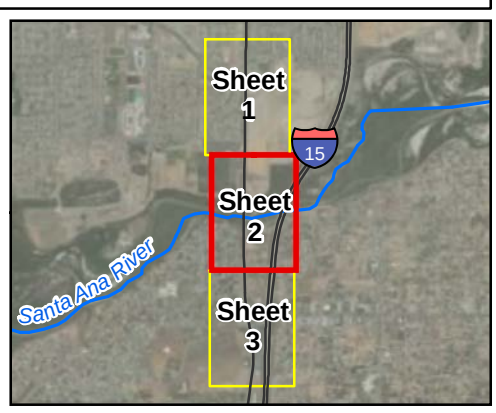
Figure 6a
Burrowing Owl Protocol Surveys
Hamner Avenue Bridge Widening Project



Legend

- Limits of Disturbance
- Burrowing Owl Survey Area (500-foot buffer)
- MSHCP - Burrowing Owl Survey Area
- Potentially Suitable Habitat
- Potential Burrowing Owl Burrow Complex
- Potential Burrowing Owl Burrow



Source: Riverside County (2019); Bing Imagery

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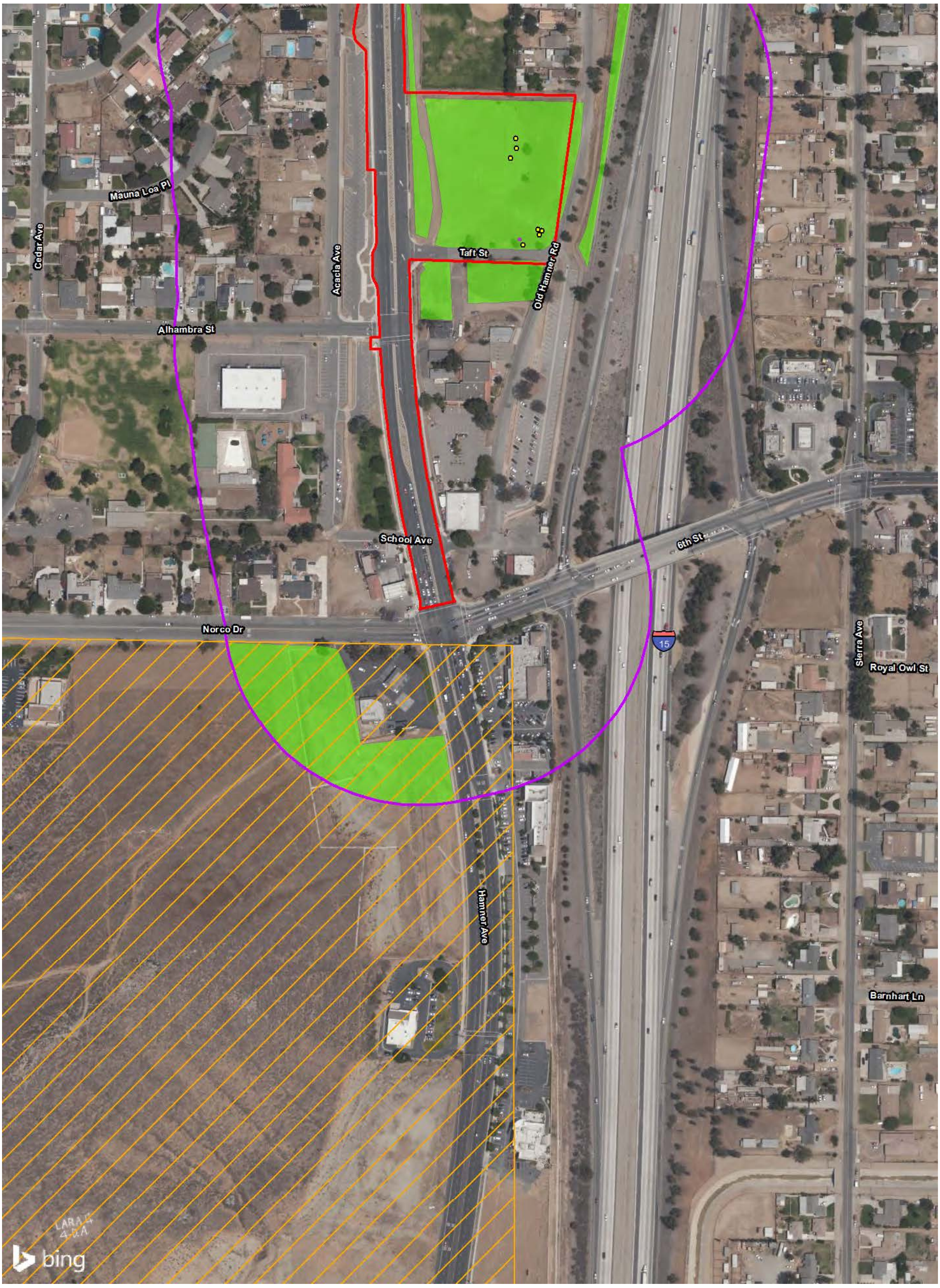
Figure 6b
Burrowing Owl Protocol Surveys
Hamner Avenue Bridge Widening Project



Legend

- Limits of Disturbance
- Burrowing Owl Survey Area (500-foot buffer)
- MSHCP - Burrowing Owl Survey Area
- Potentially Suitable Habitat
- Potential Burrowing Owl Burrow Complex
- Potential Burrowing Owl Burrow

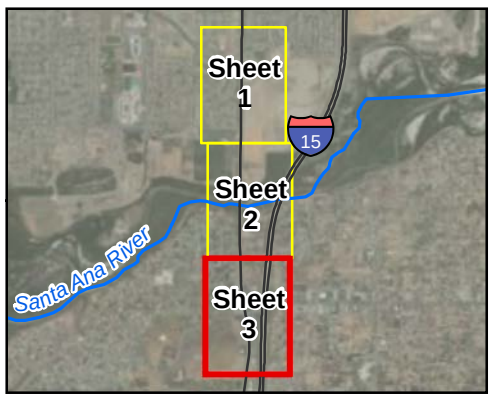


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Figure 6c
Burrowing Owl Protocol Surveys
Hamner Avenue Bridge Widening Project

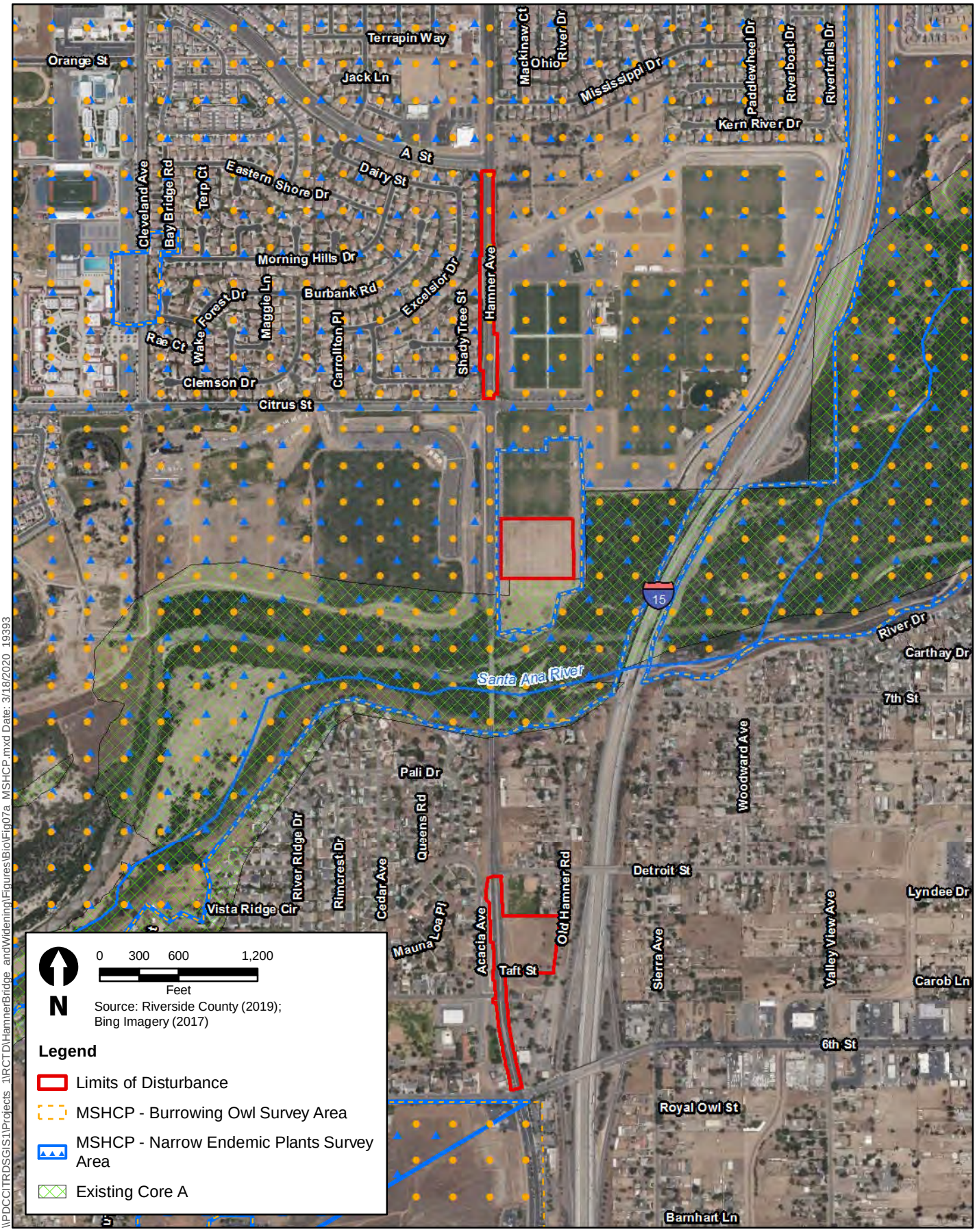

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Figure 7a
Western Riverside MSHCP
Hamner Avenue Bridge Widening Project

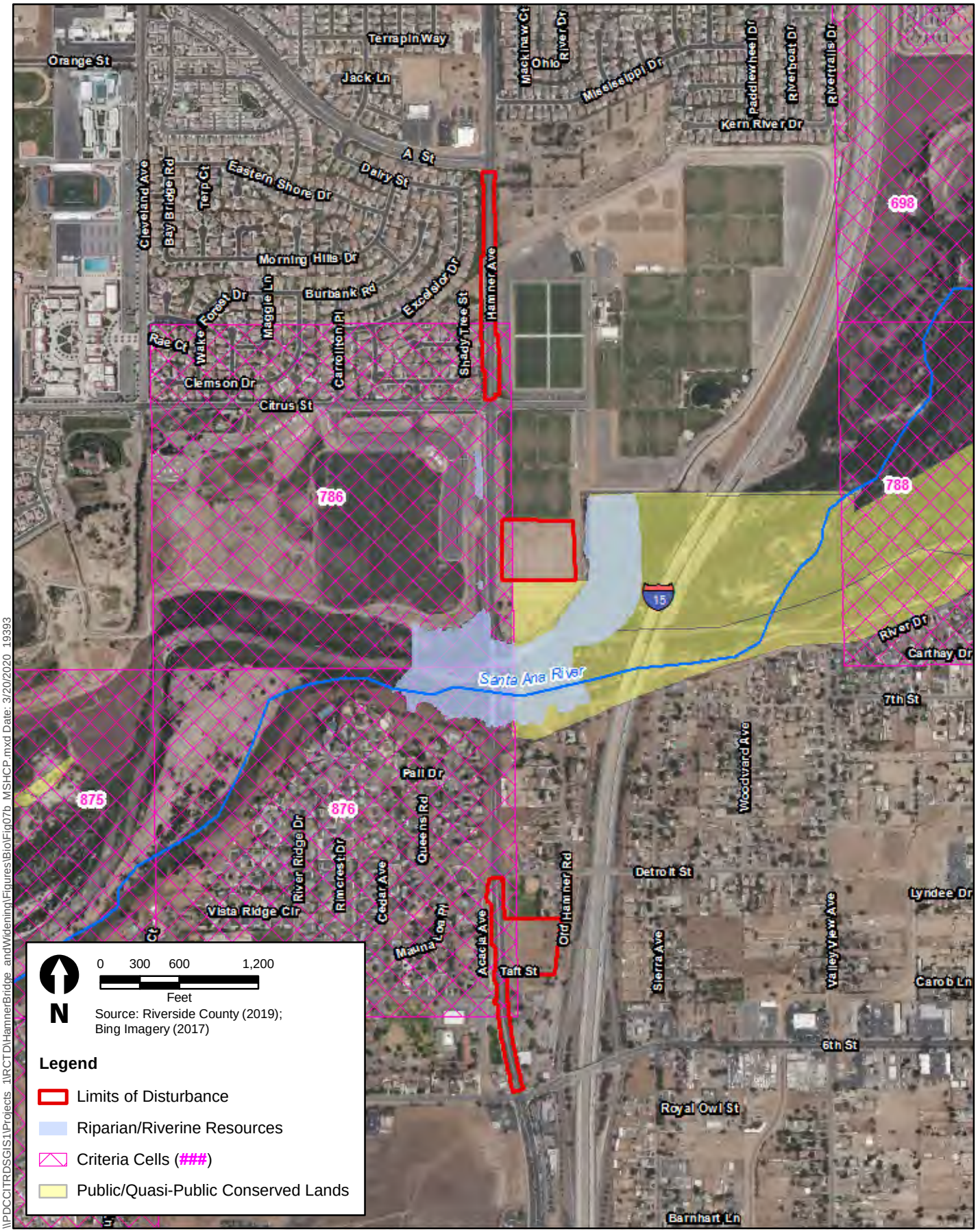

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Figure 7b
Western Riverside MSHCP
Hamner Avenue Bridge Widening Project

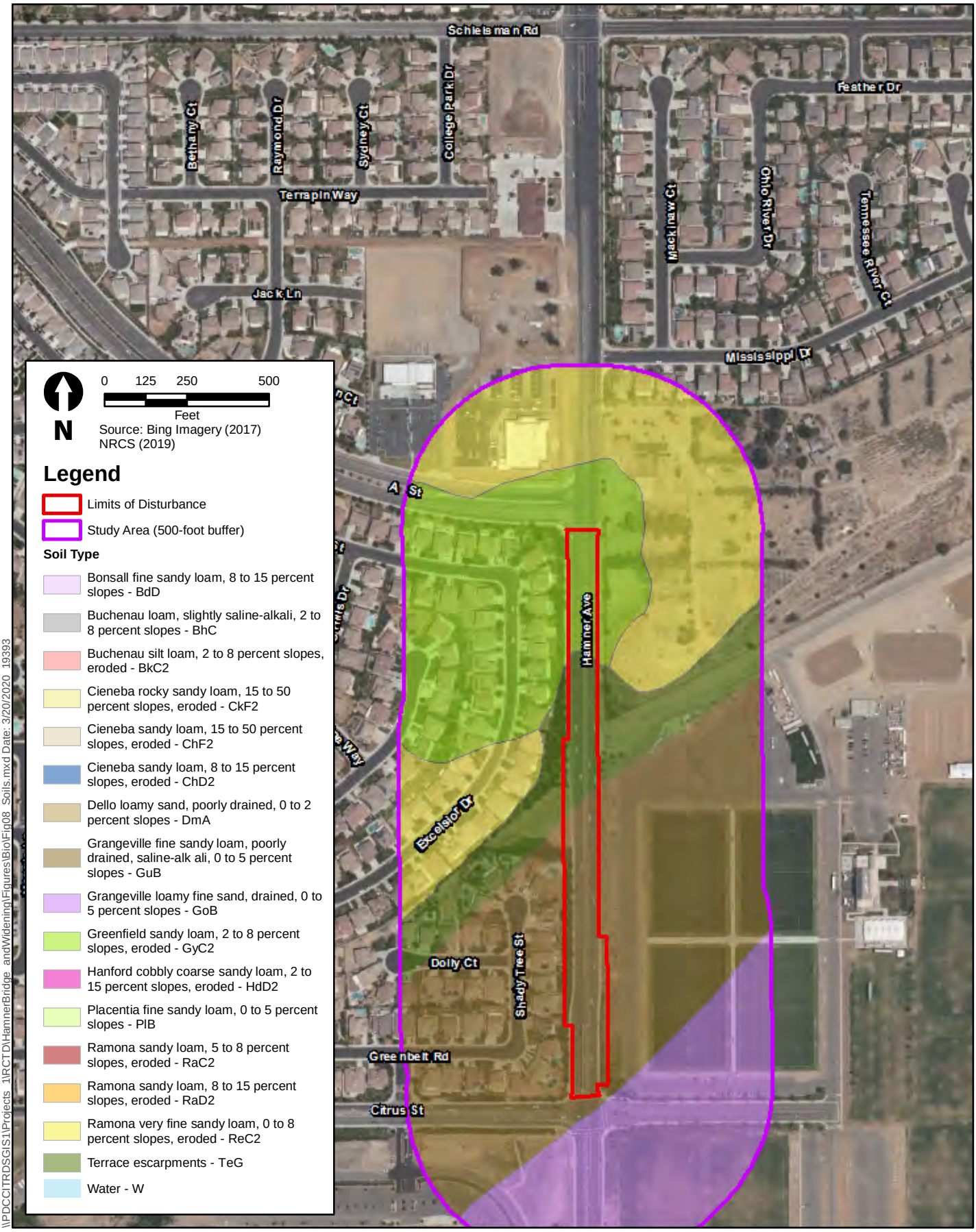

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Figure 8a
Soils
Hamner Avenue Bridge Widening Project

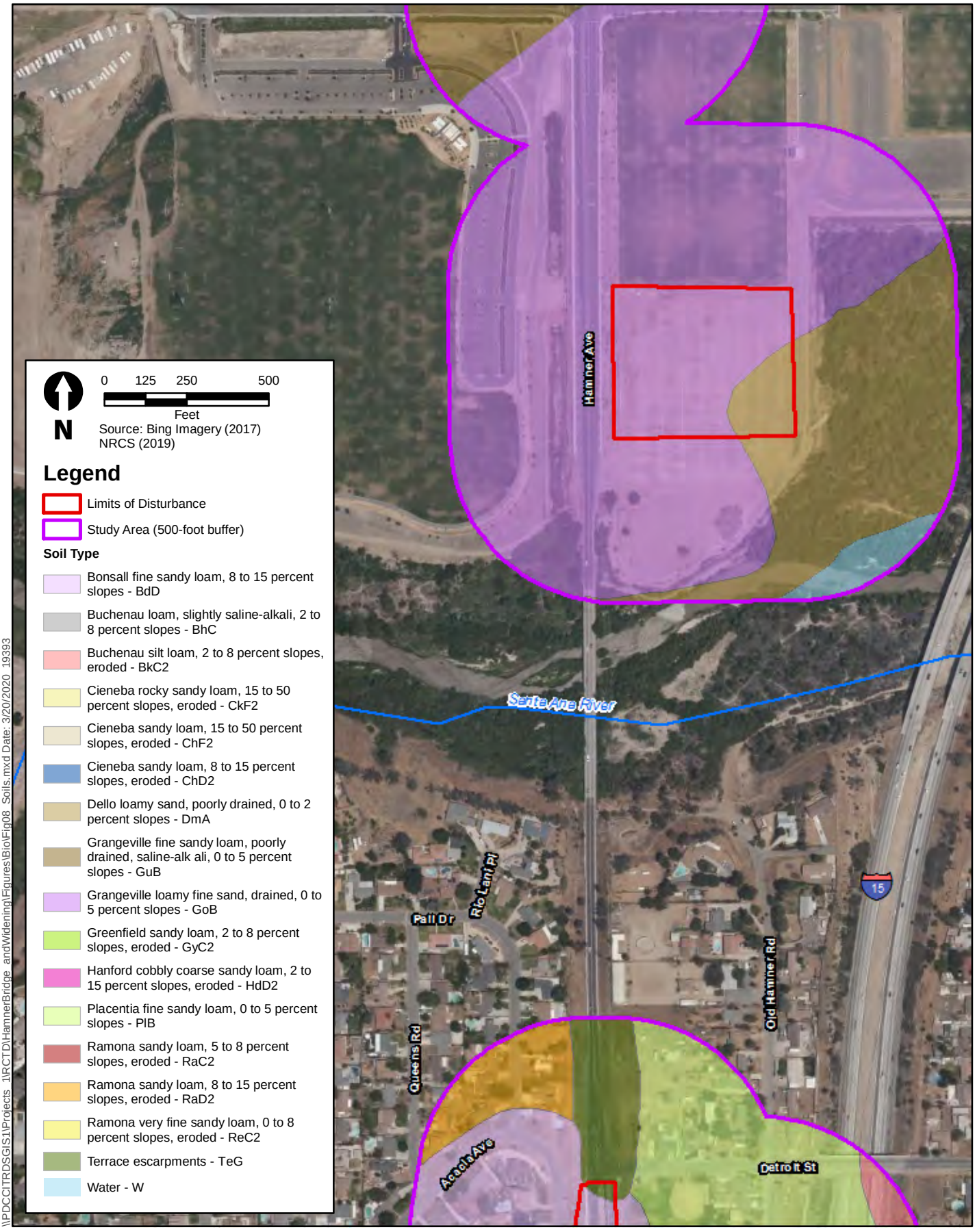

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Figure 8b
Soils
Hamner Avenue Bridge Widening Project

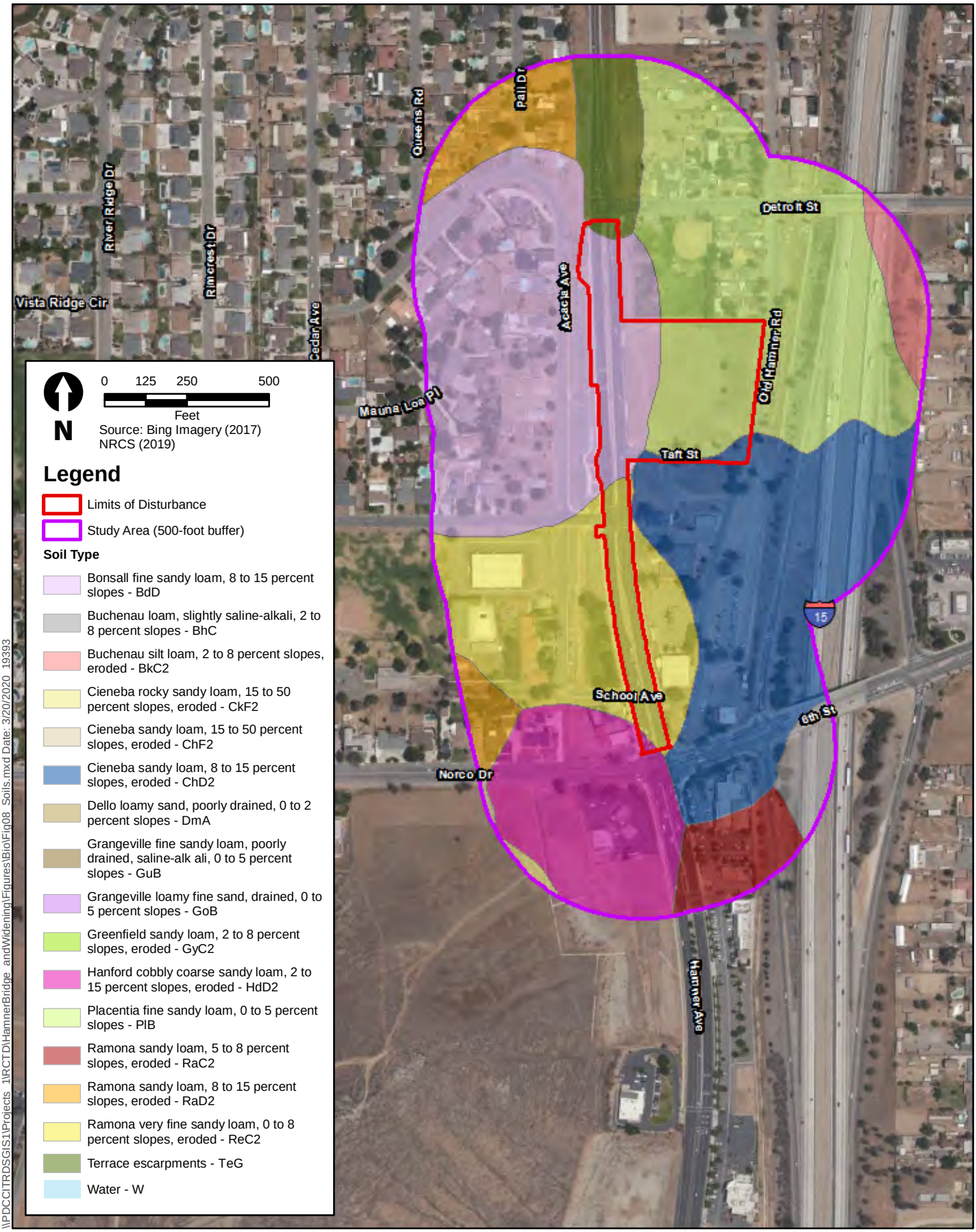

Figure 8c
Soils
Hamner Avenue Bridge Widening Project

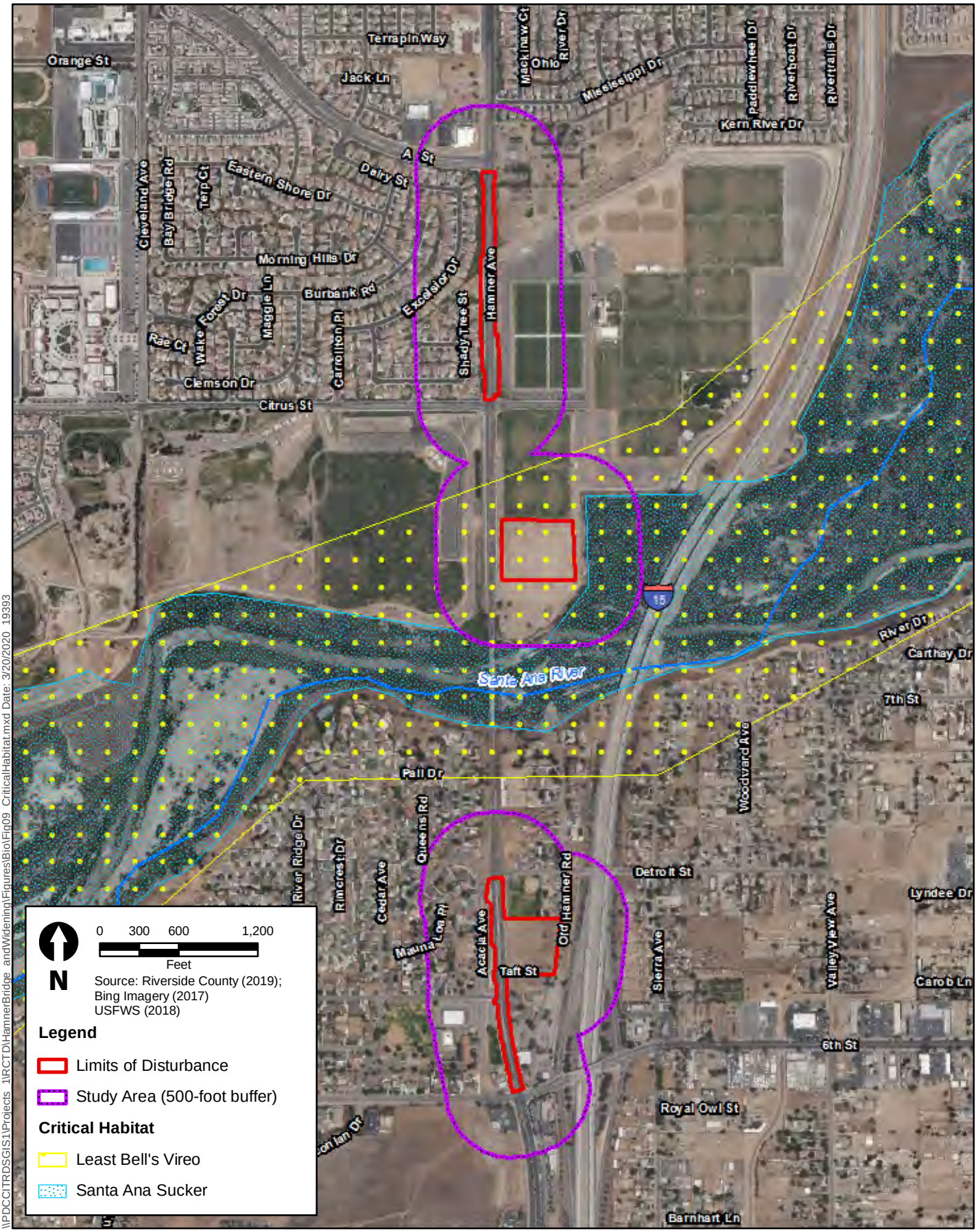

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Figure 9
Critical Habitat
Hamner Avenue Bridge Widening Project

Appendix B

USFWS Official Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/

In Reply Refer To: March 19, 2020
Consultation Code: 08ECAR00-2020-SLI-0794
Event Code: 08ECAR00-2020-E-01890
Project Name: Hamner Avenue Widening Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2020-SLI-0794

Event Code: 08ECAR00-2020-E-01890

Project Name: Hamner Avenue Widening Project

Project Type: TRANSPORTATION

Project Description: Riverside County Transportation Department, in cooperation with the cities of Norco and Eastvale, is proposing to widen two segments of Hamner Avenue from 6th Street/Norco Drive to Detroit Street and from Citrus Street to Schleisman Road, from four lanes (two lanes in each direction) to six lanes (three lanes in each direction) in anticipation of the Hamner Avenue Bridge Replacement Project (Bridge Replacement Project), which will widen Hamner Avenue Bridge over the Santa Ana River. The purpose of this project is to provide street improvements to achieve three lanes of travel in each direction along Hamner Avenue and to eliminate the lane reduction bottleneck that would occur north of 6th Street and south of Schleisman Road with the completion of the Bridge Replacement Project between Detroit Street and Citrus Street. The total project area is approximately 17 acres and roughly 0.63 mile in length. Construction is scheduled to begin in January 2021. The project is being constructed concurrently with the Bridge Replacement Project, with an anticipated duration of 36 months, although construction-related work specific to this project is expected to take approximately four months.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.94878932657437N117.55716541760195W

Counties: Riverside, CA

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Stephens' Kangaroo Rat *Dipodomys stephensi (incl. D. cascus)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3495	Endangered

Birds

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Fishes

NAME	STATUS
Santa Ana Sucker *Catostomus santaanae* Population: 3 CA river basins There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3785	Threatened

Insects

NAME	STATUS
Delhi Sands Flower-loving Fly *Rhaphiomidas terminatus abdominalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1540	Endangered

Flowering Plants

NAME	STATUS
San Diego Ambrosia *Ambrosia pumila* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8287	Endangered
Santa Ana River Woolly-star *Eriastrum densifolium ssp. sanctorum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6575	Endangered
Thread-leaved Brodiaea *Brodiaea filifolia* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6087	Threatened

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Least Bell's Vireo *Vireo bellii pusillus* https://ecos.fws.gov/ecp/species/5945#crithab	Final

Appendix C

Site Photographs

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	**Photo Number:** 1 **Photo Date:** April 26, 2019 **Description:** Ruderal habitat along Hamner Avenue. The area is regularly disked for roadside maintenance.
	**Photo Number:** 2 **Photo Date:** August 15, 2019 **Description:** Ruderal habitat along Hamner Avenue. The area is regularly disked for roadside maintenance.
	**Photo Number:** 3 **Photo Date:** April 26, 2019 **Description:** Non-native Grassland habitat along Hamner Avenue.

	**Photo Number:** 4 **Photo Date:** April 26, 2019 **Description:** Developed land cover type with ornamental landscaping (right) and public parks (left) along Hamner Avenue.
	**Photo Number:** 5 **Photo Date:** August 9, 2019 **Description:** Developed land cover type with ornamental landscaping and public parks along Hamner Avenue. Potential burrow habitat for burrowing owl occurs within the dirt banks adjacent to the road (see Photos 9 – 11).
	**Photo Number:** 6 **Photo Date:** May 2, 2017 **Description:** Fremont Cottonwood Forest/Black Willow Thickets habitat along the Santa Ana River corridor. This habitat type only occurs within portions of the BSA located outside of the project limits of disturbance.

	**Photo Number:** 7 **Photo Date:** May 2, 2017 **Description:** California Bulrush Marsh habitat along the bank of the Santa Ana River with Fremont Cottonwood Forest/Black Willow Thickets habitat in background. These habitat types only occur within portions of the BSA located outside of the project limits of disturbance.
	**Photo Number:** 8 **Photo Date:** May 2, 2017 **Description:** Santa Ana River with Fremont Cottonwood Forest/Black Willow Thickets habitat along river banks. This habitat type only occurs within portions of the BSA located outside of the project limits of disturbance.
	**Photo Number:** 9 **Photo Date:** August 22, 2019 **Description:** Potential burrow habitat for burrowing owl.

	**Photo Number:** 10 **Photo Date:** August 9, 2019 **Description:** Potential burrow habitat for burrowing owl.
	**Photo Number:** 11 **Photo Date:** August 9, 2019 **Description:** Potential burrow habitat for burrowing owl.

Appendix D

Plant Species Observed

Appendix D. Plant Species Observed

Scientific Name	Common Name	Special Status
GYMNOSPERMS		
Pinaceae - Pine family		
Pinus sp.	Pine	
EUDICOTS		
Asteraceae - Sunflower family		
* *Centaurea solstitialis*	Yellow starthistle	
* *Lactuca serriola*	Prickly lettuce	
* *Matricaria discoidea*	Pineapple weed	
Brassicaceae - Mustard family		
* *Brassica nigra*	Black mustard	
* *Brassica tournefortii*	Sahara mustard	
* *Sisymbrium irio*	London rocket	
Chenopodiaceae - Goosefoot family		
* *Salsola tragus*	Prickly russian thistle	
Geraniaceae - Geranium family		
* *Erodium cicutarium*	Redstem filaree	
Malvaceae - Mallow family		
* *Malva parviflora*	Cheeseweed	
Platanaceae - Plane Tree, Sycamore family		
Platanus racemosa	Western sycamore	
MONOCOTS		
Poaceae - Grass family		
* *Avena fatua*	Wild oat	
* *Bromus diandrus*	Ripgut brome	
* *Bromus madritensis*	Compact brome	
* *Hordeum murinum*	Wall barley	
* *Schismus barbatus*	Mediterranean schismus	

Scientific Name	Common Name	Special Status

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened

CRPR – California Rare Plant Rank
1A. Presumed extinct in California and elsewhere
1B. Rare or Endangered in California and elsewhere
2A. Presumed extinct in California, more common elsewhere
2B. Rare or Endangered in California, more common elsewhere
3. Plants for which we need more information - Review list
4. Plants of limited distribution - Watch list

Threat Ranks
.1 - Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

Appendix E

Wildlife Species Observed

Appendix E. Wildlife Species Observed

Scientific Name	Common Name	Special Status
VERTEBRATES		
Reptiles		
Sceloporus occidentalis	Western Fence Lizard	
Birds		
Cathartes aura	Turkey Vulture	
Charadrius vociferus	Killdeer	
Zenaida macroura	Mourning Dove	
Corvus brachyrhynchos	American Crow	
Hirundo rustica	Barn Swallow	
Psaltriparus minimus	Bushtit	
Melozone crissalis	California Towhee	
Haemorhous mexicanus	House Finch	
Mammals		
Ostospermophilus beecheyi	California Ground Squirrel	

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened
CSC = California Species of Special Concern
CFP = California Fully Protected Species

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