

## 9.4 Biological Resources Data





# BURLINGTON NORTHERN SANTA FE (BNSF) RAILWAY ONO LEAD TRACK EXTENSION PROJECT BIOTIC RESOURCES REPORT

San Bernardino County, California

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Prepared for:  
Kimley-Horn and Associates, Inc.  
401 B Street #600  
San Diego, CA 92101

Prepared by:  
Rocks Biological Consulting  
4312 Rialto Street  
San Diego, CA 92107  
(619) 701-6798

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## 1 SUMMARY

This report presents the results of a biological resources assessment conducted by Rocks Biological Consulting (RBC) for the Burlington Northern Santa Fe (BNSF) Railway Ono Lead Track Extension (Milepost 76.55-MP 80.61) Project (project) in the City of San Bernardino, San Bernardino County, California. The four-mile long linear right of way (ROW) is surrounded by developed land, non-native grasslands, and ruderal vegetation. The project ROW and project buffer area currently have low potential to support the state special-status species burrowing owl (*Athene cunicularia*). No additional special-status animals have the potential to occur. Special-status habitats and plants have no potential to occur. The project impact area does not support vernal pools. The project impact area does support two drainage features that would potentially be considered jurisdictional by Santa Ana Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW); however, these aquatic features are not jurisdictional by the U.S. Army Corps of Engineers (Corps), as discussed further in Section 4. Impacts on biological resources will be less than significant with implementation of the suggested mitigation measures outlined in this report.

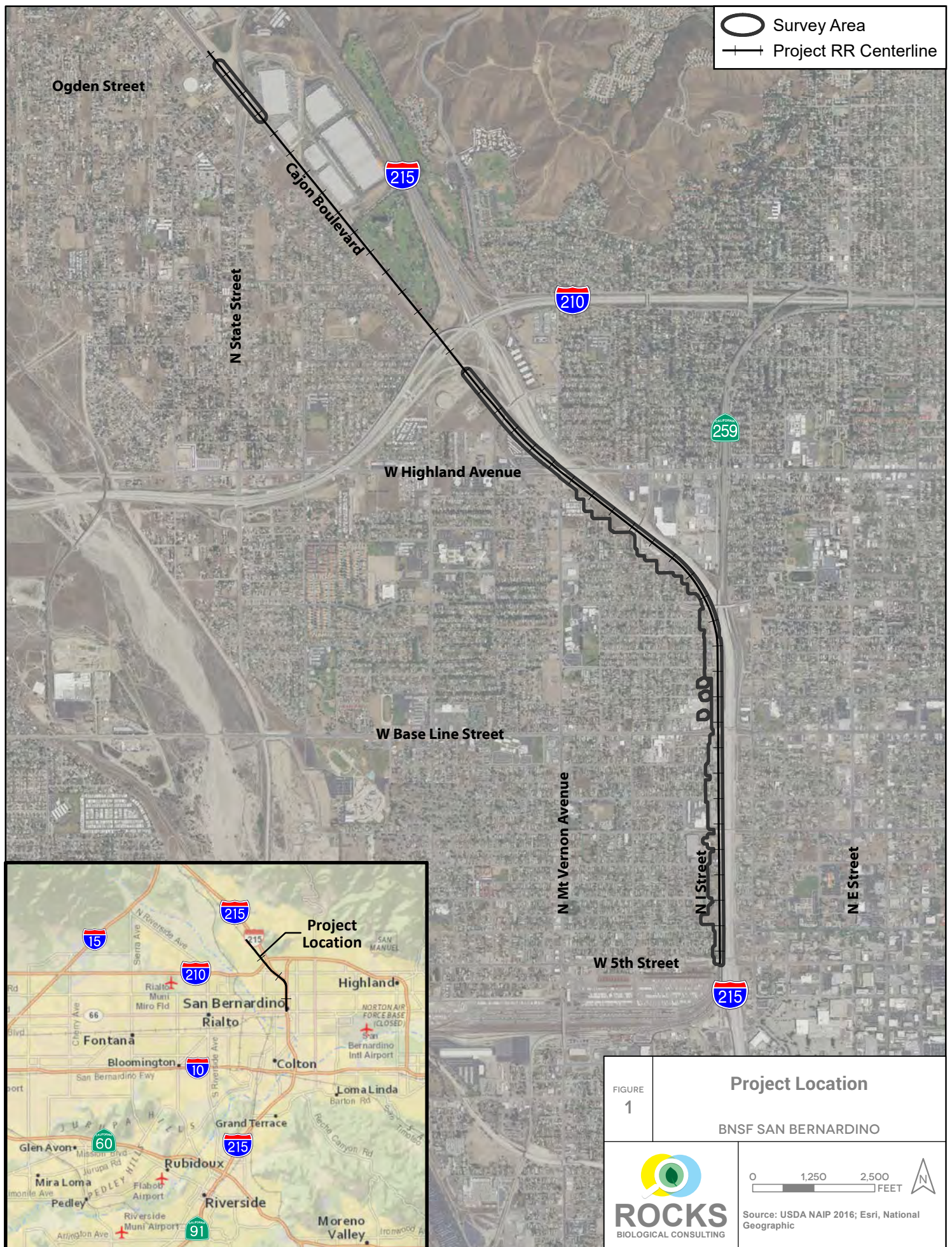
## 2 INTRODUCTION

### 2.1 PROJECT LOCATION AND BACKGROUND

The linear project ROW is located in the City of San Bernardino, County of San Bernardino, California. The project ROW runs along the west side of the Interstate (I)-215 for approximately four miles. The survey area is divided into two segments (Figure 1). The northern segment of the survey area begins south of Ogden Street and ends north of Short Street. The southern segment of the survey area begins just south of West Highland Avenue and ends north of West 5<sup>th</sup> Street. The project site is located on the U.S. Geological Survey (USGS) 7.5' quadrangle (quad) maps San Bernardino North and San Bernardino South, Township 01S, Range 04W and Township 01N, Range 04W, unsectioned land within San Bernardino land grant. The survey area includes both the northern and southern segments of the project ROW plus a 50-foot buffer on each side for a total survey area of 100.77 acres.

### 2.2 PROJECT DESCRIPTION

The purpose of the proposed project is to extend the existing San Bernardino A Yard lead track parallel to the existing three mainline tracks. The lead track would be new construction from Sixth Street to the BNSF crossing at State Street/University Parkway. The improvement would provide the San Bernardino A Yard Lead Track approximately 4.06 linear miles of track. It would allow the A Yard the ability to not only assemble and hold outbound trains, but it would give them the ability to switch out the yard without fouling the mainline. This project does not increase operations of the line, but rather increases the efficiency of operations.



## FIGURE 1



## 2.3 SCOPE OF WORK

This report identifies and evaluates impacts on biological resources associated with the project in the context of County of San Bernardino Land Use regulations, the California Environmental Quality Act (CEQA; Public Resources Code § 21000 *et seq.*), and state and federal regulations, such as the federal Endangered Species Act (ESA; 16 U.S. Code [U.S.C.] § 1531 *et seq.*), Clean Water Act (CWA; 33 U.S.C. § 1251 *et seq.*), Porter-Cologne Water Quality Control Act (Porter-Cologne; Water Code Section 13000 *et seq.*), and California Fish and Game Code (CFGF).

An RBC biologist conducted field surveys on March 22, 2018 and January 24, 2019 to assess the project for biological resources. The surveys included (1) general biological surveys; (2) vegetation mapping; (3) habitat assessments for special-status plant and wildlife species, including burrowing owl; and (4) an initial reconnaissance-level assessment for areas anticipated to be jurisdictional under the Corps pursuant to Section 404 of the CWA, under the RWQCB pursuant to Section 401 of the CWA and Porter-Cologne; and streambed and riparian habitats under CDFW pursuant to California Fish and Game Code (§1602).

Following the initial site visit, RBC regulatory specialists conducted a formal aquatic resources delineation field visit on June 12, 2019 to determine the locations of potentially jurisdictional aquatic resources per the regulatory agencies' protocols.

## 2.4 EXISTING CONDITIONS

The project survey area is comprised primarily of residential/commercial developed land and roads with small patches of disturbed, mule fat scrub, non-native grassland, ornamental, and/or ruderal land. The project site is generally flat and site elevations range from approximately 1080 to 1200 feet above mean sea level (amsl). Representative site photographs are provided in Appendix A.

## 2.5 REGULATORY FRAMEWORK

Federal, state, and local agencies have established regulations to protect and conserve biological resources. The descriptions below provide a brief overview of the agency regulations that may be applicable to the project. The final determination as to what types of permits are required for project site development will be made by the regulating agencies.

### 2.5.1 FEDERAL REGULATIONS

#### *Federal Endangered Species Act*

The ESA of 1973, as amended, (16 U.S.C. 1531 *et seq.*) provides for the listing of endangered and threatened species of plants and animals and the designation of critical habitat for these listed species. Section 9 of the ESA regulates the “taking” of any endangered fish or wildlife species. As development is proposed, the responsible agency or individual landowner is required to consult with the U.S. Fish and Wildlife Service (USFWS) to assess potential impacts on listed species (including plants) or the critical habitat of a listed species, pursuant to Sections 7 and 10 of the ESA. USFWS is required to determine the extent a project would impact a particular species. If USFWS determines that a project is likely to potentially impact a species, measures to avoid or

reduce such impacts must be identified. Following consultation and the issuance of a Biological Opinion, USFWS may issue an incidental take statement which allows for the take of a species if it is incidental to another authorized activity and will not adversely affect the existence of the species. Section 10 of the ESA provides for issuance of incidental take permits to non-federal parties in conjunction with the development of a habitat conservation plan (HCP); Section 7 of the ESA provides for permitting of projects requiring federal permits.

### ***Migratory Bird Treaty Act***

The Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703 *et seq.*) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed at 50 Code of Federal Regulations (CFR) 10.13. USFWS enforces the MBTA and prohibits “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory bird, or attempt such actions, except as permitted by regulation.

### ***Clean Water Act***

Pursuant to Section 404 of the CWA (33 U.S.C. 1251 *et seq.*), the Corps is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in 33 CFR 328.3 (85 Federal Register [FR] 22250, April 21, 2020). The Corps, with oversight from the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 permits. The Corps would require a Standard Individual Permit (SIP) for more than minimal impacts to waters of the U.S. as determined by the Corps. Projects with minimal individual and cumulative adverse effects on the environment may meet the conditions of an existing Nationwide Permit (NWP).

A water quality certification or waiver pursuant to Section 401 of the CWA is required for all Section 404 permitted actions. The RWQCB, a division of the State Water Resources Control Board (SWRCB), provides oversight of the 401-certification process in California. The RWQCB is required to provide “certification that there is reasonable assurance that an activity that may result in the discharge to waters of the United States will not violate water quality standards.” Water Quality Certification must be based on the finding that proposed discharge will comply with applicable water quality standards.

The National Pollutant Discharge Elimination System (NPDES) is the permitting program for discharge of pollutants into surface waters of the U.S. under Section 402 of the CWA.

## **2.5.2 STATE REGULATIONS**

### ***State of California Endangered Species Act***

The California Endangered Species Act of 1984 (CESA; CFGC 2050 *et seq.*), in combination with the Native Plant Protection Act of 1977 (NPPA; CFGC 1900 *et seq.*), regulates the listing and take of plant and animal species designated as endangered, threatened, or rare within the state. California also lists species of special concern based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. CESA defines an



endangered species as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.” CESA defines a threatened species as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species.”

Candidate species are defined as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.” Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the federal ESA, CESA does not list invertebrate species.

Sections 2080 through 2085 of CESA address the taking of threatened, endangered, or candidate species by stating “no person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided.” Under CESA, “take” is defined as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Exceptions authorized by the state to allow “take” require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the CFGC provide that notification is required prior to disturbance. CDFW is responsible for assessing development projects for their potential to impact listed species and their habitats. State-listed special-status species are addressed through the issuance of a 2081 permit (Memorandum of Understanding).

### ***California Environmental Quality Act***

CEQA (California Public Resources Code 21000 *et seq.*) was established in 1970 as California’s counterpart to the National Environmental Policy Act (NEPA). This statute requires state and local agencies to identify significant environmental impacts related to their actions and to avoid or mitigate those impacts, where feasible.

A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a “project.” A project is an activity undertaken by a public agency or a private activity that must receive some discretionary approval (meaning that the agency has the authority to deny the requested permit or approval) from a government agency that may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment.

### ***Natural Community Conservation Planning Act***

In 1991, the Natural Community Conservation Planning Act (NCCP Act; CFGC 2800 *et seq.*) was approved and the NCCP Coastal Sage Scrub program was initiated in Southern California. The program under the NCCP Act was established “to provide for regional protection and perpetuation of natural wildlife diversity while allowing compatible land use and appropriate development and growth.” The NCCP Act encourages preparation of plans that address habitat conservation and management on an ecosystem basis rather than one species or habitat at a time.

### ***California Fish and Game Code Sections 1600-1602***

Pursuant to Division 2, Chapter 6, Section 1602 of the CFGC, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake that supports fish or wildlife. A Notification of Lake or Streambed Alteration must be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW has jurisdiction over riparian habitats associated with watercourses and wetland habitats supported by a river, lake, or stream. Jurisdictional waters are delineated by the outer edge of riparian vegetation (i.e., drip line) or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources (e.g., riparian or wetland areas not supported by a river, lake, or stream). CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and applicant is the Lake or Streambed Alteration Agreement.

### ***California Fish and Game Code Sections 3503, 3511, 3513, 3800, 4700, 5050, and 5515***

Within California, fish, wildlife, and native plant resources are protected and managed by CDFW. The California Fish and Game Commission and/or CDFW are responsible for issuing permits for the take or possession of protected species. The following sections of the CFGC address protected species: Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish). In addition, the protection of birds of prey is provided for in Sections 3503, 3513, and 3800 of the CFGC.

### ***Porter-Cologne Water Quality Control Act***

Porter-Cologne (Water Code Section 13000 *et seq.*) provides for statewide coordination of water quality regulations. The SWRCB was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis. The RWQCB is the primary agency responsible for protecting water quality in California. As discussed above, the RWQCB regulates discharges to surface waters under the federal CWA. In addition, the RWQCB is responsible for administering Porter-Cologne.

Pursuant to Porter-Cologne, the state is given authority to regulate waters of the state, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if Section 404 is not required for the activity. “Waste” is partially defined

as any waste substance associated with human habitation, including fill material discharged into water bodies.

### **2.5.3 REGIONAL AND LOCAL PLANS**

#### *County of San Bernardino Land Use Services, Planning Division*

According to the County's Biotic Resources Overlay Map, the project site is located within the Burrowing Owl Overlay Zone (County of San Bernardino 2012). The burrowing owl is listed as a Species of Special Concern by CDFW.

## **3 METHODS**

RBC biologist Lee Ripma visited the project site on March 22, 2018 and January 24, 2019 to conduct general biological surveys, vegetation mapping, and habitat assessments for special-status plant and wildlife species, including the burrowing owl. Binoculars (10 x 42) were used to aid in the observation of biological resources during the survey. RBC biologists identified plant species using *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) and local botanical knowledge. RBC regulatory specialists Shanti Santulli and Sarah Krejca also conducted a formal aquatic resources delineation on June 12, 2019 to determine areas of potential jurisdiction by the Corps, RWQCB, and CDFW.

### **3.1 BIOLOGICAL RESOURCE DATABASE REVIEW**

RBC queried the CDFW's California Natural Diversity Database (CNDDB; CDFW 2019) and the database of threatened/endangered USFWS species (USFWS 2019) for a one-mile radius around the project site. RBC also consulted the County of San Bernardino's Biotic Resources Overlay Map (County of San Bernardino 2012) for biotic resources overlay zones within the project site and biological resources with potential to occur within the project site.

### **3.2 BURROWING OWL HABITAT ASSESSMENT**

Burrowing owl habitat was assessed in accordance with the Staff Report on Burrowing Owl Mitigation developed by CDFW dated March 7, 2012 (referred to herein as, the Guidelines). Suitable burrowing owl habitat can be found in annual and perennial grasslands, deserts, and scrublands characterized by low-growing vegetation (Zarn 1974). Suitable owl habitat may also include trees and shrubs if the canopy covers less than 30 percent of the ground surface. Burrows are the essential component of burrowing owl habitat; both natural and artificial burrows provide protection, shelter, and nests for burrowing owl (Henny and Blus 1981). Burrowing owls typically use burrows made by rodents, such as ground squirrels or badgers, but may also use human-made structures, such as concrete culverts; concrete, asphalt, or wood debris piles; or openings beneath concrete or asphalt pavement. According to the Guidelines, verification of occupied burrowing owl habitat can be achieved through observation of one of the following: at least one owl, molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance.

### 3.3 VEGETATION MAPPING AND GENERAL PLANT AND WILDLIFE SURVEYS

Vegetation mapping took place directly on a 150-scale (1" = 150') aerial photograph following Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986). The biologist mapped vegetation within the project alignment and a 50-foot buffer on each side.

### 3.4 FORMAL JURISDICTIONAL AQUATIC RESOURCES DELINEATION

An RBC biologist conducted a wetland/waters jurisdictional constraints assessment on January 24, 2019 to identify potential aquatic resource areas. Following the initial assessment, RBC regulatory specialists conducted a formal aquatic resources delineation per Corps, RWQCB, and CDFW regulations, guidelines, and protocols on June 12, 2019 to assess the presence or absence of potentially jurisdictional features on site.

The project survey area included the proposed project area with a 50-foot buffer for a total of approximately 100.77 acres. Areas with depressions, drainage patterns, and/or wetland vegetation within the proposed survey area were evaluated for potential jurisdictional status, with focus on the presence of defined channels and/or wetland vegetation, soils, and hydrology. Field staff examined potential Corps jurisdictional wetland areas using the Corps' 1987 *Wetland Delineation Manual* (Wetland Manual; Environmental Laboratory 1987) and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0* (Arid West Supplement; Corps 2008a). RWQCB potential jurisdictional wetland areas were determined based on the state wetland definition provided in the SWRCB's *State Wetland Definition for Discharges of Dredged or Fill Material to Waters of the State* (the Procedures; SWRCB 2019). Additionally, the Procedures provide that the RWQCB shall rely on a wetland area delineation from a final aquatic resource report verified by the Corps to determine the extent of potential wetland waters of the State. The SWRCB and RWQCBs do not have regulations or guidance on defining the extent of non-wetland waters of the State. As such, lateral limits of potential non-wetland waters of the U.S./State for the Corps and RWQCB, respectively, were identified per *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (Corps 2008b). CDFW potential jurisdictional boundaries were determined based on the presence of lake and/or streambed (i.e., bank-to-bank) and riparian habitat or wetland areas supported by a lake or streambed.

*The BNSF Railway Ono Lead Track Extension Project Jurisdictional Delineation Report* (JDR; RBC 2019; Appendix B) provides the full methodology used for the formal jurisdictional delineation.

Please note, RBC completed and submitted the 2019 JDR (Appendix B) and an associated request for an Approved Jurisdictional Determination (AJD) to the Corps to conclude that Feature 1 and 2 are not Corps-jurisdictional, in January 2020, prior to the effective dates of the updated Corps definition of waters of the U.S. per the Navigable Waters Protection Rule and the RWQCB's Procedures. This biotic resources report has been revised to reflect the Corps' updated definition of waters of the U.S. and the RWQCB's Procedures; however, the JDR has not been revised accordingly since the Corps processed an AJD with the original 2019 JDR on December 14, 2020.

An addendum to the JDR will be provided to the RWQCB with application submittal to ensure compliance with the Procedures.

## 4 RESULTS

### 4.1. BIOLOGICAL RESOURCE DATABASE REVIEW RESULTS

The CNDDDB results included historical occurrences of 12 special-status plant species and 12 special-status wildlife species within one mile of the project site (Figure 2A; Table 1). The USFWS query results included historical occurrences of three special-status wildlife species within one mile of the project site (Figure 2B; Table 1).

Table 1. Special-Status Species – Potential for Occurrence

Species	Status	Habitat Description	Potential for Occurrence Within Project Site
<b>Plants</b>			
Gambel's watercress ( <i>Nasturtium gambelii</i> )	FE, ST, CRPR 1B.1	Found in wetland habitats.	None. Suitable habitat not present within project site.
Horn's milk-vetch ( <i>Astragalus hornii</i> var. <i>hornii</i> )	CRPR 1B.1	Found in alkali sink, wetland, and riparian habitats.	None. Suitable habitat not present within project site.
Marsh sandwort ( <i>Arenaria paludicola</i> )	FE, SE, CRPR 1B.1	Found in freshwater marsh and wetland habitats.	None. Suitable habitat not present within project site.
Parish's bush-mallow ( <i>Malacothamnus parishii</i> )	CRPR 1A	Found in coastal sage scrub and chaparral habitats.	None. Presumed extinct. Suitable habitat not present within project site.
Parish's desert-thorn ( <i>Lycium parishii</i> )	CRPR 2B.3	Found in creosote bush scrub and coastal sage scrub habitats.	None. Suitable habitat not present within project site.
Peruvian dodder ( <i>Cuscuta obtusiflora</i> var. <i>glandulosa</i> )	CRPR 2B.2	Found in freshwater marshes and swamps.	None. Suitable habitat not present within project site.
Plummer's mariposa-lily ( <i>Calochortus plummerae</i> )	CRPR 4.2	Found in chaparral, foothill woodland, yellow pine forest, coastal sage scrub and valley grassland habitats.	None. Suitable habitat not present within project site.
Robinson's pepper-grass ( <i>Lepidium virginicum</i> var. <i>robinsonii</i> )	CRPR 4.3	Found in chaparral and coastal sage scrub habitats.	None. Suitable habitat not present within project site.



Salt marsh bird's-beak ( <i>Chloropyron maritimum</i> ssp. <i>maritimum</i> )	FE, SE, CRPR 1B.2	Found in coastal strand, coastal salt marsh, wetland, and riparian habitats.	None. Suitable habitat not present within project site.
Salt spring checkerbloom ( <i>Sidalcea</i> <i>neomexicana</i> )	CRPR 2B.2	Found in creosote bush scrub, chaparral, yellow pine forest, coastal sage scrub, alkali sink, wetland, and riparian habitats.	None. Suitable habitat not present within project site.
San Bernardino aster ( <i>Symphyotrichum</i> <i>defoliatum</i> )	CRPR 1B.2	Found in wetland habitats.	None. Suitable habitat not present within project site.
Santa Ana River woollystar ( <i>Eriastrum</i> <i>densifolium</i> ssp. <i>sanctorum</i> )	FE, SE, CRPR 1B.1	Found primarily in alluvial sage scrub, chaparral, and coastal scrub habitats. Requires periodic flooding along with scouring and sediment deposition.	None. Suitable habitat not present within project site.
<b>Wildlife</b>			
American badger ( <i>Taxidea taxus</i> )	SSC	Found primarily in open grasslands, agricultural fields, and pastures but can occur in a wide variety of habitats including chaparral and deserts.	None. Undeveloped areas on the project site are small and isolated and cannot support American badger. The surrounding areas are dominated by development and are not suitable.
Burrowing owl ( <i>Athene</i> <i>cunicularia</i> )	SSC	Found in grasslands and open scrub from coast to foothills. Strongly associated with California ground squirrel and other fossorial mammal burrows.	Low. Suitable habitat is present on-site, but no burrowing owl or sign observed.
California black rail ( <i>Laterallus jamaicensis</i> <i>coturniculus</i> )	ST, FP	Found in marsh habitat.	None. Suitable habitat not present within project site.
California glossy snake ( <i>Arizona elegans</i> <i>occidentalis</i> )	SSC	Found in arid scrub, rocky washes, grasslands, and chaparral habitat.	None. Suitable habitat not present within project site.
Coast horned lizard ( <i>Phrynosoma blainvillii</i> )	SSC	Inhabits open areas of sandy soil and low vegetation in grasslands, coniferous forests, woodlands, and chaparral. Often found in sandy washes and along dirt roads.	None. Suitable habitat not present within project site.

Delhi Sands flower-loving fly ( <i>Rhaphiomidas terminatus abdominalis</i> )	FE	Found in sandy areas composed of Delhi Fine Sands, stabilized by sparse native vegetation.	None. Delhi Fine Sands not present within project site.
Los Angeles pocket mouse ( <i>Perognathus longimembris brevinasus</i> )	SSC	Found in lower elevation grassland, alluvial sage scrub, and coastal sage scrub.	None. Suitable habitat not present within project site.
Pocketed free-tailed bat ( <i>Nyctinomops femorosaccus</i> )	SSC	Found in pinyon-juniper woodlands, desert scrub, desert riparian, desert wash, Joshua tree, and palm oasis. Roosts in cave, rock crevices in cliff faces, and man-made structures.	None. Suitable habitat not present within project site.
Quino checkerspot butterfly ( <i>Euphydryas editha quino</i> )	FE	Found in grasslands, coastal sage scrub, chamise chaparral, juniper woodlands, and semi-desert scrub that support the primary larval host plant.	None. Suitable habitat not present within project site.
San Bernardino kangaroo rat ( <i>Dipodomys merriami parvus</i> )	FE, SSC	Found on the gentle slopes of alluvial fans, on flood plains, along washes, and on adjacent upland areas, including alluvial sage scrub, coastal sage scrub, and chaparral.	None. Suitable habitat not present within project site.
Southern California legless lizard ( <i>Anniella stebbinsi</i> )	SSC	Found in sparsely vegetated areas with moist warm loose soil, primarily in coastal sand dunes, sandy washes, and alluvial fans.	None. Suitable habitat not present within project site.
Southern rubber boa ( <i>Charina umbratica</i> )	ST	Found in oak-conifer and mixed-conifer forests.	None. Suitable habitat not present within project site.
Swainson's hawk ( <i>Buteo swainsoni</i> )	ST	Found primarily in grassland habitats.	None. There is no potential breeding habitat within the project site and Swainson's hawks no longer breed in Southern California (Unitt 2004). Non-native grassland patches would likely be too small to support foraging by a migrating Swainson's hawk.

Western yellow bat ( <i>Lasiurus xanthinus</i> )	SSC	Found in grassland and scrub habitats often near water features such as ponds, streams, and rivers.	None. Suitable habitat not present within project site.
Western yellow-billed cuckoo ( <i>Coccyzus americanus occidentalis</i> )	FT, SE	Found primarily in riparian forests and woodlands.	None. Suitable habitat not present within project site.
<p>CRPR – California Rare Plant Rank</p> <p>1A – Plants presumed extirpated in California and either rare or extinct elsewhere</p> <p>1B – Plants rare, threatened, or endangered in California and elsewhere</p> <p>2B – Plants rare, threatened, or endangered in California but more common elsewhere</p> <p>3 – Plants about which more information is needed</p> <p>4 – Watch List: Plants of limited distribution</p> <p>0.1 – Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)</p> <p>0.2 – Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)</p> <p>0.3 – Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)</p> <p>FE – Federally Endangered (USFWS)</p> <p>FT – Federally Threatened (USFWS)</p> <p>FP – Fully Protected (CDFW)</p> <p>SE – State Endangered (CDFW)</p> <p>ST – State Threatened (CDFW)</p> <p>SSC – Species of Special Concern (CDFW)</p>			

The USFWS query results did not contain any historical occurrences of special-status plant species or critical habitats within one mile of the project site. The CNDDDB and USFWS database queries did not contain records of historically mapped sensitive habitats or vegetation communities. The project site does not contain suitable habitat for the 12 special-status plant species and 15 special-status wildlife species with historical occurrences within one mile of the project site.

The project is within the County of San Bernardino's Burrowing Owl Overlay Zone (Biotic Resources Overlay Map, County of San Bernardino 2012). The project has low potential to support burrowing owl as detailed in Section 4.2.











Figure 2A

Figure 2B

## 4.2 BURROWING OWL HABITAT ASSESSMENT RESULTS

No burrowing owl individuals or burrowing owl sign were observed within the project site. However, California ground squirrel (*Otospermophilus beecheyi*) can colonize open sites and California ground squirrel activity on-site could result in future suitable burrows for burrowing owl refuge and nesting. Based on current conditions, the project site has low potential to support burrowing owl; however, based on the project site's location in the Burrowing Owl Overlay Zone, pre-construction burrowing owl surveys should be conducted prior to ground disturbing activities within the project site.

## 4.3 VEGETATION MAPPING AND GENERAL PLANT AND WILDLIFE SURVEY RESULTS

The project survey area is approximately 100.77 acres and made up of developed/disturbed land (92.31 acres), non-native grassland (5.80 acres), ruderal land (2.21 acres), ornamental vegetation (0.33 acre), and mule fat scrub (0.12 acre). The five vegetation communities/land uses that occur within the survey area are detailed below and displayed on Figure 3.

### Developed/Disturbed

Developed areas that occur on the project site include buildings, roads, parking areas, and a railroad line. Disturbed habitat is typically classified as land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a plant association (e.g., disturbed chaparral). Disturbed habitat is typically found in vacant lots, along roadsides, within construction staging areas, and in abandoned fields. The habitat is typically dominated by non-native annual species and perennial broadleaf species, but can also consist of barren areas devoid of vegetation. The developed/disturbed lands within the Project survey area include numerous trees associated with residential and commercial development, parking lots, sidewalks, and other developed areas.

### Mule Fat Scrub

Mule fat scrub is characterized by localized, dense stands of mule fat (*Baccharis salicifolia*), an erect woody perennial shrub that can grow up to 12 feet tall. Mule fat scrub occurs in small patches associated with culverted drainages at the north end of the project survey area.

### Non-native Grassland

Non-native grassland consists of a dense to sparse cover of non-native annual grasses, often with native and non-native annual forbs. This habitat is often found in areas that experienced a previous disturbance.

### Ornamental

Ornamental vegetation is typically classified as an area containing planted ornamental, non-native plant species. The ornamental vegetation within the Project survey area includes trees associated with residential and commercial development, parking lots, sidewalks, and other developed areas.

## Ruderal

Ruderal vegetation is typically found in areas with previous disturbance from vegetation clearing, development, or agricultural activities, and which contain vegetative cover that is comprised of more than 50 percent broad-leaved, non-native species. The ruderal vegetation community within the project site is disturbed to the extent that no natural habitat remains.

## 4.4 OBSERVED AQUATIC RESOURCES

Two potentially jurisdictional features were observed during the aquatic resources delineation field visit, Feature 1 and Feature 2.

Feature 1 is a sparsely vegetated, ephemeral drainage/ditch located in the northern portion of the project survey area (Figure 4A; Tables 2 and 3). Feature 1 travels southeast/south for approximately 345 linear feet before traveling southwest over a maintenance road into the project survey area, through an area of mule fat scrub before continuing under the railroad tracks then travelling southwest for approximately 690 linear feet. Feature 1 is generally earthen-lined except for a 133.3-linear foot concrete-lined portion located underneath the extent of the University Parkway/North State Street overpass. The feature continued off-site for approximately 1,930 linear feet before terminating.

Feature 2 is a concrete-lined channel/ditch in the southern portion of the project survey area commencing at two separate points before combining into a single channel/ditch after approximately 40 feet (Figure 4B; Tables 2 and 3). Feature 2 travels south before entering a riprap basin where some flows continue west into a culvert while other flows continue travelling further south under the U.S. Route 66 overpass before continuing offsite and to the southwest/west for approximately 470 linear feet then entering a storm drain inlet. Based on review of Google Earth imagery and historic aeriels, RBC anticipates that flows from this storm drain system eventually enter Lytle Creek although this has not been confirmed.

**Table 2. RWQCB Potential Jurisdictional Resources within the Survey Area**

Feature Name	Acreage	Linear Feet	Cowardin Code	Presence of OHWM/Wetland	Dominant Vegetation	Location (lat/long)
Feature 1	0.07	860	U	Yes/No	Primarily unvegetated drainage/ditch	34.156589, -117.334494
Feature 2	0.09	331	U	Yes/No	Concrete channel	34.108989, -117.303434
<b>Total</b>	<b>0.16</b>	<b>1,191</b>				

**Table 3. CDFW Potential Jurisdictional Resources within the Survey Area**

Feature Name	Feature Type	Dominant Vegetation Type	Acreage	Linear Feet	Location (lat/long)
Feature 1	Streambed (Bank)	Unvegetated Drainage/Ditch	0.11	727	34.156589, -117.334494
		Concrete Channel	0.02	133	
	Riparian	Mule Fat Scrub	0.06 <sup>1</sup>	0	
Feature 2	Streambed (Bank)	Concrete Channel	0.06	331	34.108989, -117.303434
		Riprap Basin	0.07	0	
Total			0.32	1,191	

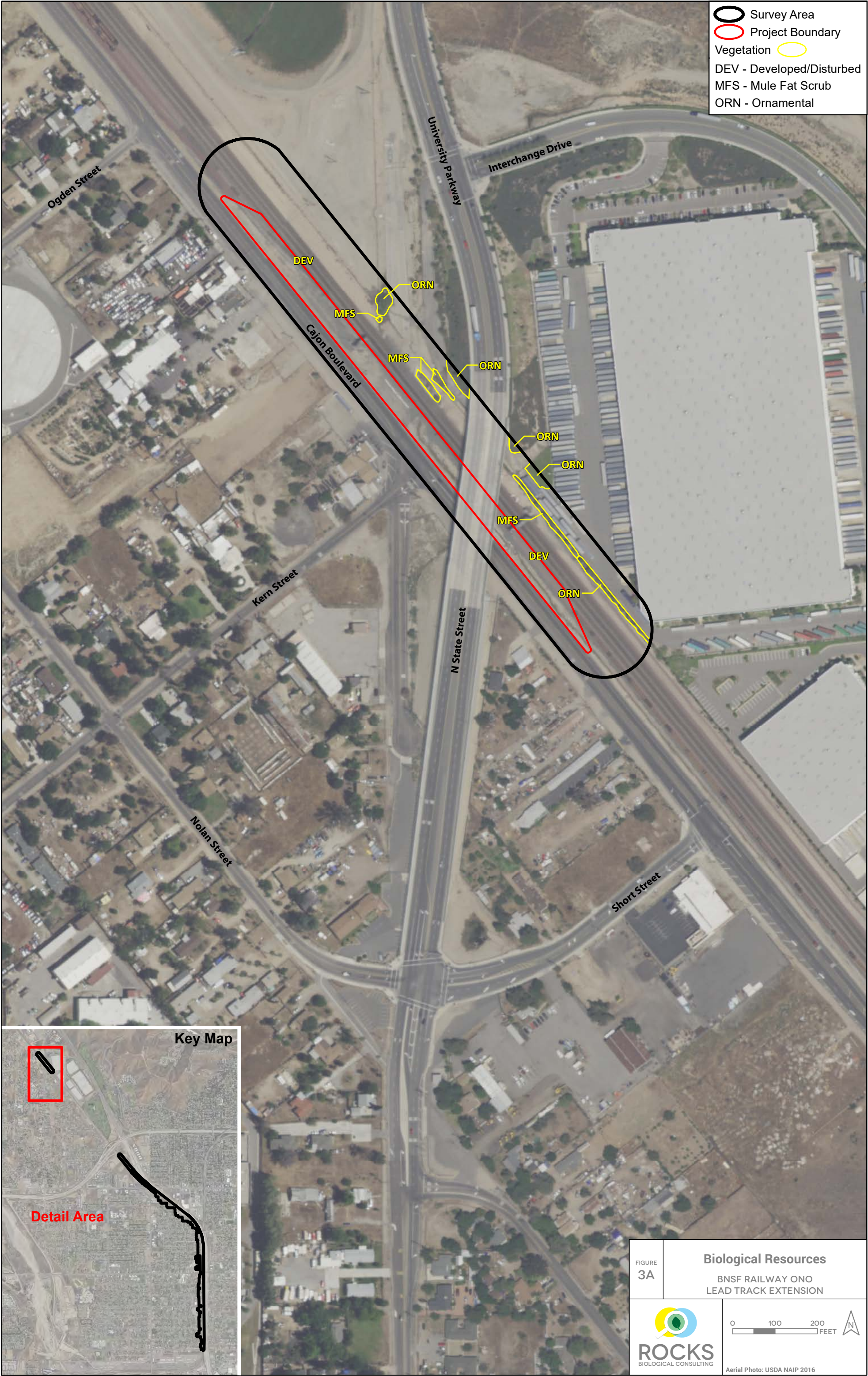
<sup>1</sup> Acreage of CDFW potentially jurisdictional mule fat scrub differs from acreage outlined in Section 4.3 as field staff determined various mule fat scrub areas were isolated and not directly associated with a streambed or wetland. Further information is provided below and in the JDR (Appendix B; RBC 2019).

Overall, the project survey area supports 0.16 acre (1,191 linear feet) of RWQCB-jurisdictional ephemeral waters of the State/surface waters and 0.32 acre (1,191 linear feet) of CDFW-jurisdictional ephemeral streambed and associated riparian habitat. RBC does not expect Feature 1 or Feature 2 would be considered jurisdictional by the Corps, as they appeared to be human-made ephemeral ditches excavated wholly in uplands and appeared only to receive flows from residential/road runoff in direct response to precipitation. Therefore, Feature 1 and 2 would not be considered jurisdictional by the Corps as they are ephemeral ditches, which are specifically classified as “non-jurisdictional waters” in 33 CFR 328.3(b)(1), (b)(3), and/or (b)(5). Complete results are presented under separate cover in the JDR (Appendix B); the Corps is processing an AJD to confirm the non-jurisdictional status of Features 1 and 2.

Note that during the March 2018 and January 2019 biological surveys, RBC biologists mapped several areas of mule fat scrub within the northern portion of the project survey area (Figure 3A). The northernmost area of mule fat scrub, as shown on Figure 3A, was not associated with a streambed or wetland as it consisted of a single mule fat with no drainage patterns in the surrounding area. The area of mule fat scrub to the southeast of N State Street, as shown on Figure 3A, was within a slightly depressional area which may allow for ponding but was not associated with a streambed or wetland as there was no defined bed or bank. Therefore, these two isolated areas of mule fat scrub are not considered jurisdictional by the Corps, RWQCB, or CDFW as they are not considered a non-wetland or wetland water of the U.S./State or surface water. Photos of the associated areas are provided in Appendix C of the JDR (Appendix B).

Please note, RBC submitted the JDR (Appendix B) and an associated request for an Approved Jurisdictional Determination (AJD) to the Corps to conclude that Feature 1 and Feature 2 are not Corps-jurisdictional in January 2020. The Corps issued the AJD in December 2020 and determined Feature 1 and Feature 2 to be non-jurisdictional aquatic resources.

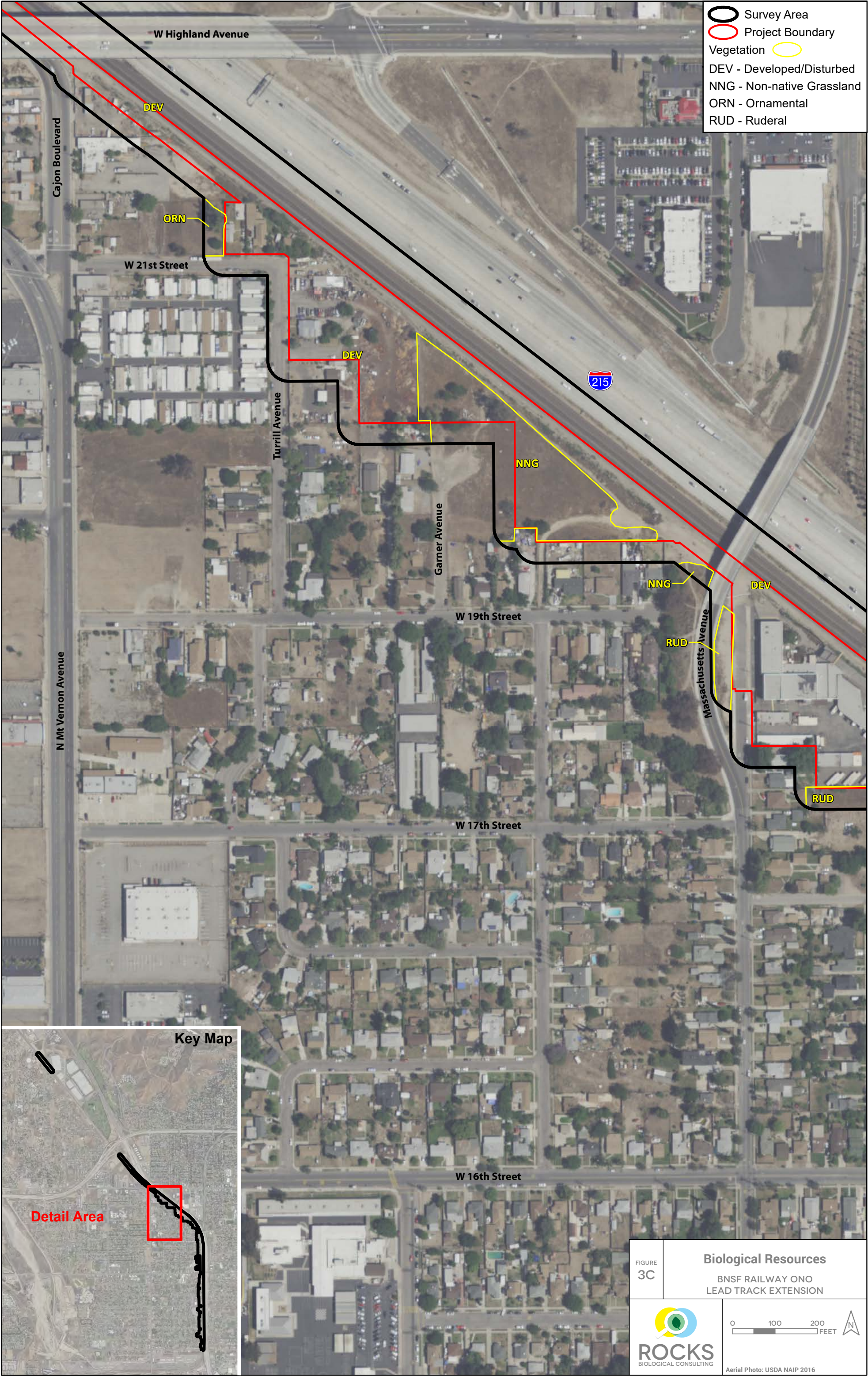








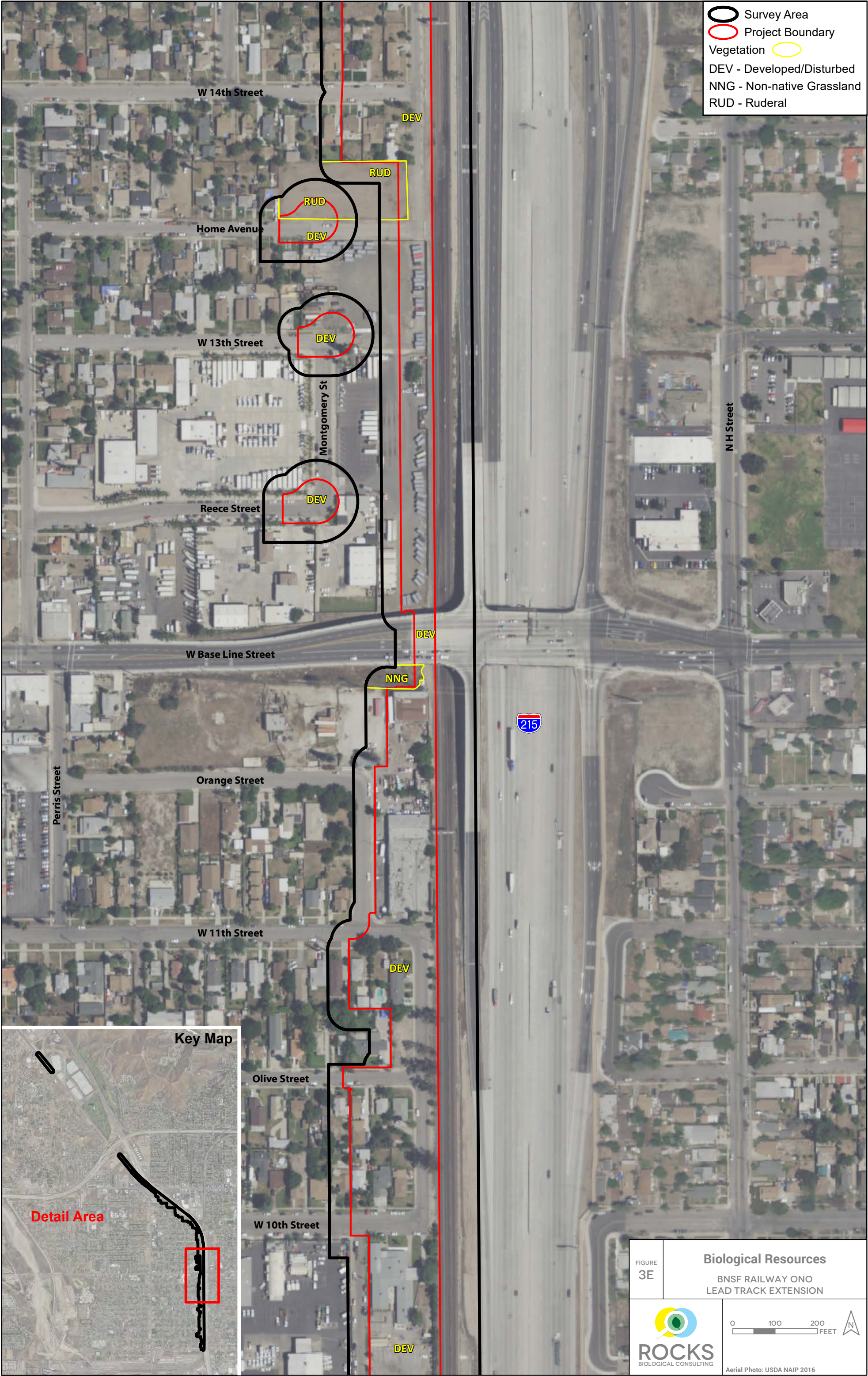














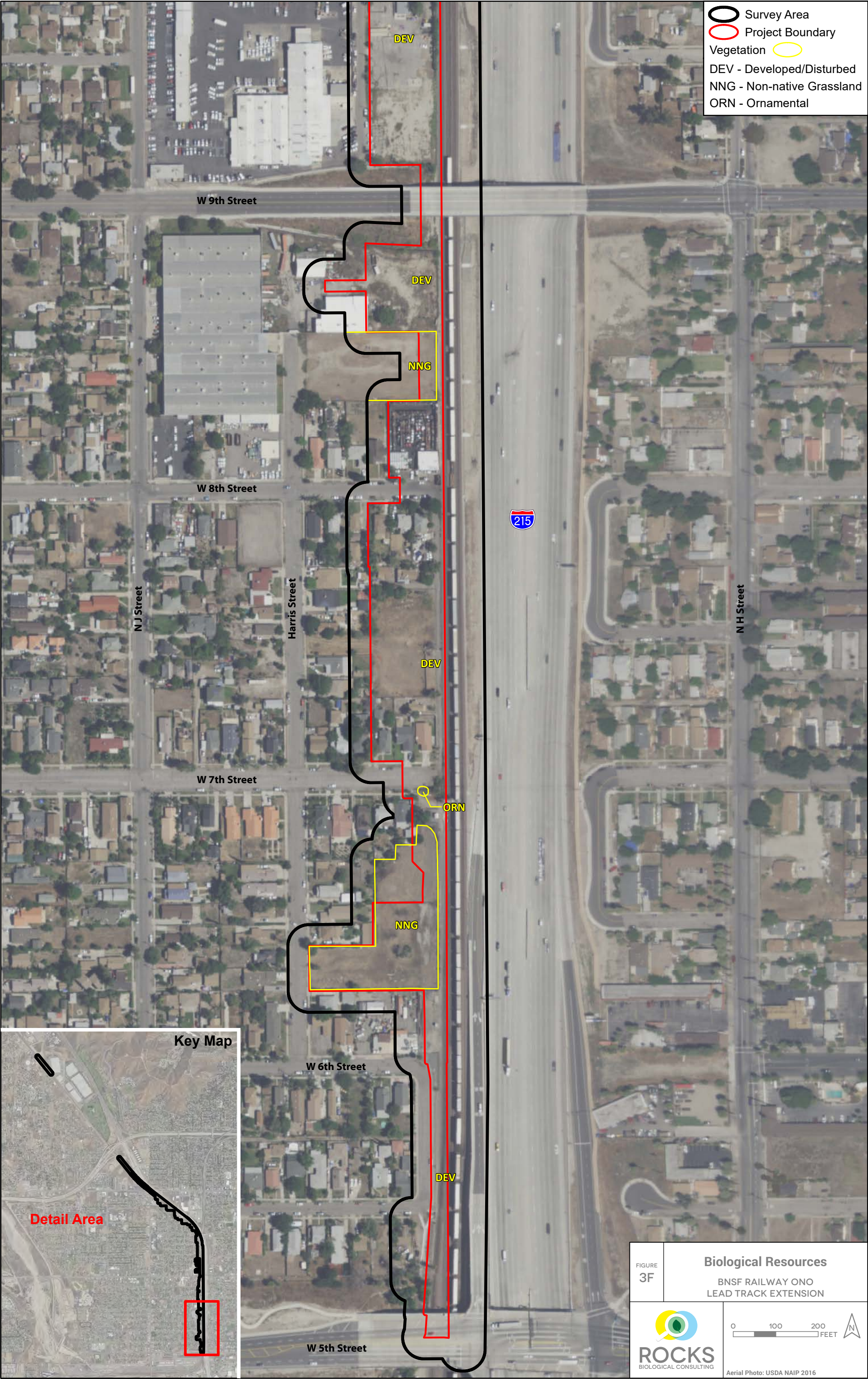




Figure 3A

Figure 3B



Figure 3C

Figure 3D

Figure 3E

Figure 3F

## 5 IMPACTS

Direct impacts refer to any alteration, disturbance, or destruction of biological resources caused by and occurring at the same time and place as the project. Examples include direct losses to native habitats, potential jurisdictional waters, wetlands, and special-status species; the crushing of adult plants, bulbs, or seeds; the diversion of natural surface water flows; injury, death, and/or harassment of listed and/or special-status species; and the destruction of habitats necessary for species breeding, feeding, or sheltering.

Indirect impacts may occur later in time or at a place that is farther removed in distance from the project than direct impacts, but indirect impacts are still reasonably foreseeable and attributable to project-related activities. Examples include habitat fragmentation; elevated noise, dust, and lighting levels; changes in hydrology, runoff, and sedimentation; decreased water quality; soil compaction; increased human activity; and the introduction of invasive wildlife (domestic cats and dogs) and plants.

Cumulative impacts are the direct and indirect impacts of a proposed project which, when considered alone, would not be deemed substantial, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. 'Related projects' refers to past, present, and reasonably foreseeable future projects which would have similar impacts on the proposed project.

CEQA Guidelines Form J thresholds of significance have been used to determine whether project implementation would result in a significant direct, indirect, and/or cumulative impact. These thresholds are based on Appendix G of the CEQA Guidelines (California Code of Regulations 15000 *et seq.*). A significant biological resources impact would occur if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- Have a substantial adverse effect on federal protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marshes, vernal pools, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;











Figure 4A

Figure 4B

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy, or ordinance;
- Conflict with the provisions of an adopted HCP; Natural Community Conservation Plan; or other approved local, regional, or state HCP.

## 5.1 NATIVE HABITAT IMPACT ANALYSIS

The project has the potential to impact four habitats or land uses as outlined in Table 4 and shown on Figure 3A-F. The project will not impact any native vegetation community. In addition, impacts on non-native vegetation communities or habitats would be less than significant.

Table 4. Potential Project Impacts on Vegetation Communities/Land Uses

Land Use (Map Code)	Project Site (Acres)
Developed/Disturbed (DEV)	37.37
Non-native Grassland (NNG)	3.26
Ornamental (ORN)	0.01
Ruderal (RUD)	0.80
Total	41.44

## 5.2 SPECIAL-STATUS PLANTS IMPACT ANALYSIS

The project will not impact special-status plants due to a lack of suitable habitat for all species and the high level of site disturbance. Impacts on special-status plants will not occur with project implementation.

## 5.3 SPECIAL-STATUS ANIMALS IMPACT ANALYSIS

Due to a lack of suitable habitat for special-status species on the project site and through compliance with the project-specific mitigation measures, the project will not impact special-status animals or habitat for special-status animals. As noted above, the project site is in the San Bernardino County Burrowing Owl Overlay Zone. Through compliance with the project-specific mitigation measure in Section 6.1, project activities will avoid impacts on burrowing owls. The project site does not have the potential to support any additional special-status wildlife species.

## 5.4 NESTING BIRD IMPACT ANALYSIS

The project site has the potential to impact active bird nests if vegetation is removed or ground disturbing activities occur during the nesting season (January 15 to August 31). Impacts on nesting birds are prohibited by the MBTA and CFGC. A project-specific measure that will avoid project impacts on nesting birds is identified in Section 6.2 of this report. With the implementation of this measure, impacts on nesting birds would be less than significant.

## **5.5 RIPARIAN HABITAT IMPACT ANALYSIS**

The project will not impact riparian habitat as no such vegetation is present within the project boundary. Impacts on riparian habitat will not occur with project implementation.

## **5.6 JURISDICTIONAL AQUATIC RESOURCES IMPACT ANALYSIS**

Based upon the results in the JDR (Appendix B), RBC expects that the project would permanently impact approximately 0.07 acre (701 linear feet) of RWQCB-jurisdictional ephemeral waters of the State/surface waters and 0.12 acre (701 linear feet) of CDFW-jurisdictional ephemeral streambed. RBC does not expect Feature 1 or Feature 2 would be considered jurisdictional by the Corps, as these features appeared to be human-made ephemeral drainages or ditches excavated wholly in uplands and appeared only to receive flows from residential/road runoff in direct response to precipitation. Therefore, Feature 1 and 2 would not be considered jurisdictional by the Corps as they are ephemeral ditches, which are specifically classified as “non-jurisdictional waters” in 33 CFR 328.3(b)(1), (b)(3), and/or (b)(5).

Please note, RBC submitted the JDR (Appendix B) and an associated request for an AJD to the Corps to conclude that Feature 1 and Feature 2 are not Corps-jurisdictional in January 2020. The Corps issued the AJD in December 2020 and determined Feature 1 and Feature 2 to be non-jurisdictional aquatic resources; thus, no Corps permitting will be required for the proposed project. Permitting through the RWQCB and CDFW will be required for impacts on waters of the State/surface waters jurisdictional by the RWQCB and streambed jurisdictional by CDFW. The project applicant will be responsible for acquiring the necessary authorizations required by the RWQCB and CDFW and associated compensatory mitigation requirements, if applicable.

## **5.7 INDIRECT IMPACT ANALYSIS**

In the context of biological resources, indirect impacts are those effects associated with construction activities adjacent to native open space. Potential indirect effects associated with development include water quality impacts from drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. The project site does not occur adjacent to native vegetation communities; therefore, indirect effects will not occur as a result of construction-related activities.

## **5.8 CUMULATIVE IMPACT ANALYSIS**

Due to the level of disturbance at the project site, adjacent development, and the lack of sensitive biological resources, the project will not result in any significant cumulative impacts on biological resources.

# **6 MITIGATION AND AVOIDANCE MEASURES**

The following discussion provides project-specific mitigation/avoidance measures for actual or potential impacts on special-status resources.

## 6.1 BURROWING OWL

As noted above, neither burrowing owls nor their sign were observed at the project site during the habitat assessment. However, based on the project site's location in the Burrowing Owl Overlay Zone a pre-construction burrowing owl survey should be conducted prior to project construction to ensure that burrowing owl have not colonized the project site. To avoid impacts on burrowing owl, the following mitigation measure (MM-1) is recommended:

**MM-1:** Prior to construction activity resulting in ground disturbance, a qualified biologist shall conduct a pre-construction presence/absence survey for burrowing owls. The pre-construction survey shall be conducted within 30 days of site disturbance on the Project survey area plus a 500-foot buffer. If the survey determines burrowing owls are absent, the Project may proceed without further restrictions related to burrowing owls. If the survey determines burrowing owls are present, protective measures shall be implemented to ensure compliance with the Migratory Bird Treaty Act (MBTA) and other applicable California Fish and Game Code (CFGF) requirements and include, but are not limited to the following:

- a. Occupied burrowing owl habitat shall not be disturbed during nesting season (February 1-August 31) unless a qualified biologist verifies through non-invasive methods that either (1) the birds have not begun egg-laying or incubation or (2) that juveniles from the occupied burrows are foraging independently and are capable of an independent survival flight.
- b. If relocation is required, a Burrowing Owl Mitigation Monitoring Plan prepared by a qualified biologist shall be submitted to the City and the California Department of Fish and Wildlife (CDFW) for review and approval prior to relocation of owls. The Burrowing Owl Mitigation Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location(s) of occupied sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, locations, and type of burrows) shall be included in the plan. The plan shall also describe specific procedures to compensate for impacts to burrowing owl/occupied burrows. Such procedures may include, but are not limited to, the purchase/conservation of off-site suitable habitat that is known to support burrowing owl. Specific ratios would be determined in consultation with CDFW.
- c. If burrowing owl must be moved away from the disturbance area, passive relocation techniques shall be used. Owls must be relocated by a qualified biologist from any occupied burrows that would be impacted by Project activities. Required relocation shall be approved by the CDFW. A report summarizing the results of the relocation and monitoring shall be submitted to the City and the CDFW within 30 days following completion of the burrowing owl relocation and monitoring.

## 6.2 NESTING BIRDS

As noted above, the project site has the potential to support nesting birds. To avoid impacts on nesting birds the following mitigation measure (MM-2) is recommended:

**MM-2:** Vegetation clearing and ground-disturbing activities shall be conducted outside of the nesting season (January 15 to August 31) to the extent feasible. If avoidance of the nesting season is infeasible, then a qualified biologist shall conduct a nesting bird survey within ten days prior to any ground disturbance, including disking, demolition activities, and grading. Survey results shall be provided to the City of San Bernardino for review. If active nests are identified, the biologist shall establish suitable buffers around the nests depending on the level of activity within the buffer and species observed, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Bird nest buffers shall be established by the biologist in consultation with California Department of Fish and Wildlife. Generally, raptor species will have an avoidance buffer of 200 to 500 feet and passerine bird species will have an avoidance buffer of 50 to 300 feet. The biologist shall record the results of the recommended protective measures and shall submit a memo summarizing any nest avoidance measures to the City of San Bernardino to document compliance with applicable state and federal laws pertaining to the protection of native birds.

## 6.3 JURISDICTIONAL WATERS

As noted above, the proposed project would permanently impact 0.07 acre of RWQCB-jurisdictional ephemeral waters of the State/surface water and 0.12 acre of CDFW-jurisdictional ephemeral streambed. Impacts on RWQCB- and CDFW-jurisdictional features would require Waste Discharge Requirements (WDR) and a Streambed Alteration Agreement, respectively. Additionally, compensatory mitigation may be required by the regulatory agencies to offset the proposed project impacts. With implementation of the following mitigation measure (MM-3), impacts to jurisdictional “waters of the State” would be reduced to less than significant.

**MM-3:** Based on the results of the Jurisdictional Delineation for the Project, the proposed project would permanently impact 0.07 acre of Regional Water Quality Control Board (RWQCB)-jurisdictional waters of the State and 0.12 acre of California Department of Fish and Wildlife (CDFW)-jurisdictional ephemeral streambed (i.e., Feature 1, sparsely vegetated earthen- and concrete-lined ditch; Feature 2, concrete- and riprap-lined ditch and basin). Prior to any ground disturbing activity near the jurisdictional feature, applicable permits shall be obtained through the RWQCB and CDFW for impacts to jurisdictional features. The Applicant shall be obligated to implement/comply with the mitigation measures required by the resource agencies regarding impacts on their respective jurisdictions.

In light of the disturbed and limited aquatic resource functions of the on-site jurisdictional features, it is expected that permanent impacts to jurisdictional features would be compensated for at a 1:1 mitigation ratio. Potential compensatory mitigation to offset impacts to jurisdictional resources may be implemented through off-site, permittee-responsible mitigation, in-lieu fee program or mitigation bank credit purchase, or a

combination of these options depending on availability. The proposed mitigation strategy will prioritize in-kind and in-watershed options per the regulatory agencies' preferences. The regulatory agencies will make the final determination of the final compensatory mitigation requirements during the permit evaluation process.

## 7 CONCLUSION

As outlined above, the project will not result in significant impacts on biological resources with implementation of the mitigation measures (MM-1 through MM-3) in Section 6. The majority of the project site is composed of non-native habitats and no special-status plant/wildlife species or sensitive habitats were observed within the project boundaries. Special-status habitats and plants have no potential to occur. No burrowing owls, burrowing owl sign, or suitable nesting burrows were observed during the site visit and burrowing owls are presumed absent from the project site. A pre-construction burrowing owl survey should be conducted to document the continued absence of burrowing owl from the project site (see recommended MM-1). The project site does not have the potential to support additional special-status wildlife species. Suitable avian nesting habitat is present within the project site. If ground-disturbing activities or removal of any vegetation is scheduled within the avian nesting season (January 15 - August 31), a pre-construction clearance survey for nesting birds should be conducted to ensure there are no impacts on nesting birds (see recommended MM-2). The project, as currently proposed, would permanently impact jurisdictional waters of the State/surface waters per the RWQCB and ephemeral streambed per CDFW. Permitting through the RWQCB and CDFW for such impacts will be required; permanent impacts to jurisdictional features would be compensated for at a 1:1 mitigation ratio (see recommended MM-3).



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## **APPENDIX A**

### **SITE PHOTOGRAPHS**

## Burlington Northern Santa Fe Railway Project Site Photographs



Photo 1: Disturbed and developed land within project alignment. March 22, 2018.



Photo 2: Non-native grassland within project alignment. March 22, 2018.





Photo 3: Roads and residential development within project alignment. March 22, 2018.



Photo 4: Disturbed land within project alignment. March 22, 2018.



Photo 5: Overview of project alignment showing disturbed and developed land. March 22, 2018.



Photo 6: Disturbed land within project alignment. March 22, 2018.





Photo 7: Non-native grassland within project alignment adjacent to freeway overpass. March 22, 2018.



Photo 8: Disturbed land within project alignment. March 22, 2018.





Photo 9: Ruderal land within project alignment. March 22, 2018.



Photo 10: 1-foot wide brow ditches south of project site. March 22, 2018.





Photo 11: Potentially jurisdictional feature in the northern segment of the survey area. January 24, 2019.



Photo 12: Potentially jurisdictional feature in the northern segment of the survey area that contains mulefat (*Baccharis salicifolia*). January 24, 2019.





Photo 13: Culverts under the railroad tracks associated with the potentially jurisdictional feature in the northern segment of the project. January 24, 2019.

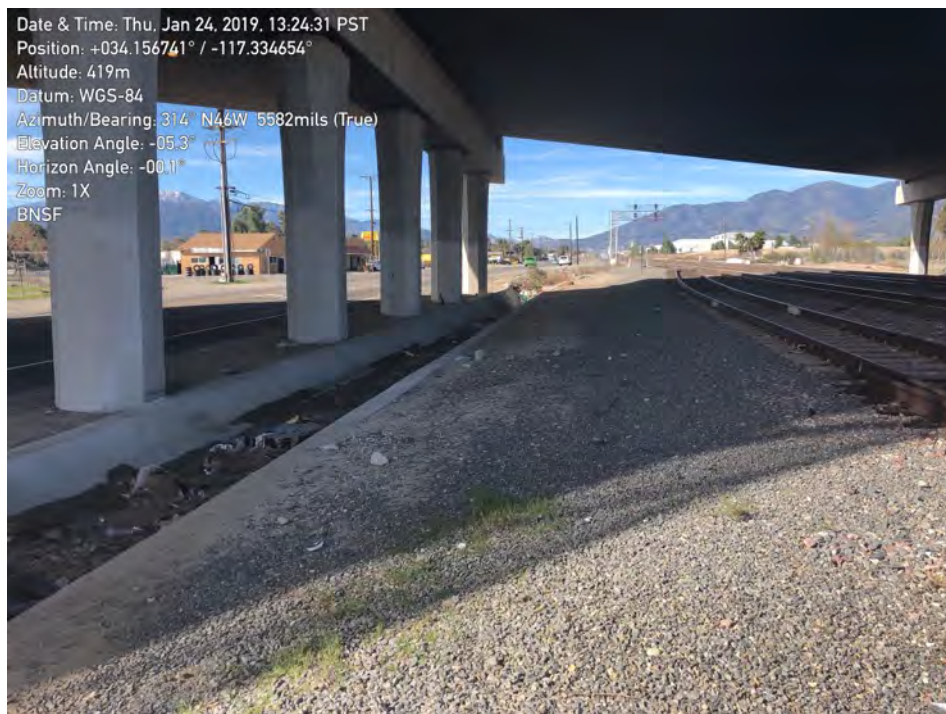


Photo 14: Potentially jurisdictional feature in the northern segment of the survey area. January 24, 2019.

## **APPENDIX B**

### **BNSF RAILWAY ONO LEAD TRACK EXTENSION PROJECT JURISDICTIONAL DELINEATION REPORT**



# BURLINGTON NORTHERN SANTA FE (BNSF) RAILWAY ONO LEAD TRACK EXTENSION PROJECT JURISDICTIONAL DELINEATION REPORT

San Bernardino County, California

December 13, 2019

Prepared for:

BNSF

3770 E. 26th Street

Los Angeles, CA 90058

David.Miller2@bnsf.com

760-964-8979

Prepared by:

Rocks Biological Consulting

2621 Denver Street, Ste. B

San Diego, CA 92110

(619) 701-6798

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## **APPENDICES**

Appendix A. Checklist: Minimum Standards for Acceptance of Aquatic Resources Delineation Reports, Los Angeles District Regulatory Division, Corps

Appendix B. NRCS WETS Table

Appendix C. Site Photographs

Appendix D. Recent and Historic Aerials Analysis

Appendix E. JD Request Form

Appendix F. GIS Data

## **1 INTRODUCTION**

Rocks Biological Consulting (RBC) conducted a formal jurisdictional delineation for the Burlington Northern Santa Fe (BNSF) Railway Ono Lead Track Extension Project (project) on behalf of BNSF (project applicant) to identify areas anticipated to be jurisdictional under the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act (33 USC § 1251 et seq.; CWA); jurisdictional under the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.; Porter-Cologne Act); and streambed and riparian habitats under California Department of Fish and Wildlife (CDFW) pursuant to California Fish and Game Code (CFGF) §1602. This information is necessary to evaluate potential jurisdictional impacts and permit requirements associated with the proposed project, can be used by the agencies to assess project conformance with state and federal regulations, and serves as a request for the Corps to complete an Approved Jurisdictional Determination (AJD) based on the information provided in this report. Furthermore, Appendix A provides a checklist of the information contained in this report in compliance with the Corps Los Angeles District's *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (Corps 2017).

### **1.1 PROJECT LOCATION**

The linear project right of way (project site) for the proposed project runs along the west side of Interstate 215 (I-215) for approximately four miles within the City of San Bernardino, in San Bernardino County, California (Figure 1). The project site is divided into two segments. The northern segment begins south of Ogden Street and ends north of Short Street. The southern segment begins just south of West Highland Avenue and ends north of West 5<sup>th</sup> Street.

The latitude and longitude of the approximate center of the site is 34.126761, -117.307483. The project site sits on Township 1 South, Range 4 West, San Bernardino and Muscupiabe land grant lands and Township 1 North, Range 4 West, San Bernardino and Muscupiabe land grant lands within the San Bernardino North and San Bernardino South 7.5-minute quadrangles, as mapped by the U.S. Geological Survey (USGS; Figure 2).

### **1.2 PROJECT DESCRIPTION**

The project proposes to extend the existing San Bernardino A Yard Lead Track parallel to the existing three mainline tracks. The lead track would be new construction from Sixth Street to the BNSF crossing at State Street/University Parkway. The improvement would provide the San Bernardino A Yard Lead Track approximately 4.06 linear miles of track and allow the A Yard the ability to not only assemble and hold outbound trains, but to switch out the yard without fouling the mainline, improving the overall efficiency of the A Yard.

### **1.3 REGULATORY BACKGROUND**

Several regulations have been established by federal, state, and local agencies to protect and conserve aquatic resources. The descriptions below provide a brief overview of agency regulations that may be applicable to the proposed project. Regulatory agencies make the final determination of whether a project requires authorization pursuant to these regulations.

### 1.3.1 APPLICABLE AQUATIC RESOURCE PROTECTION REGULATIONS

#### ***Clean Water Act***

Pursuant to Section 404 of the CWA, the Corps is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in 33 Code of Federal Regulations (CFR) 328.3 (as amended at 80 Federal Register (FR) 37104, June 29, 2015). The Corps, with oversight from the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 permits. The Corps would require a Standard Individual Permit (SIP) for more than minimal impacts to waters of the U.S. as determined by the Corps. Projects with minimal individual and cumulative adverse effects on the environment may meet the conditions of an existing Nationwide Permit (NWP).

Under the 2015 Clean Water Rule applicable on the date of this report, the Corps defines waters of the U.S. as follows:

- a. [T]he term “waters of the United States” means:
  - 1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
  - 2) All interstate waters, including interstate wetlands;
  - 3) The territorial seas;
  - 4) All impoundments of waters otherwise identified as waters of the United States under this section;
  - 5) All tributaries, as defined in paragraph (c)(3) of this section, of waters identified in paragraphs (a)(1) through (3) of this section; and
  - 6) All waters adjacent to a water identified in paragraphs (a)(1) through (5) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

Additionally, under the 2015 Clean Water Rule, waters of the U.S. also include all waters noted in 33 CFR 328.3 (a)(7) (i.e., prairie potholes, Carolina bays and Delmarva bays, pocosins, western vernal pools, and Texas coastal prairie wetlands) and all waters noted in 33 CFR 328.3 (a)(8) (i.e., “waters located within the 100-year floodplain” of a water identified in 33 CFR 328.3 (a)(1) through (3) and all waters “within 4,000 feet of the high tide line or OHWM” of a water identified in 33 CFR 328.3 (a)(1) through (5)) where they are determined to have a significant nexus to a water identified above in 33 CFR 328.3 (a)(1) through (a)(3).

A repeal of the 2015 Clean Water Rule was published on October 22, 2019. As a result, the following definition of waters of the U.S., per pre-2015 regulations, is anticipated to go into effect on December 23, 2019 per 33 CFR 328.3 (51 FR 41217; 53 FR 20764).

- a. The term waters of the United States means:

- 1) All waters which are currently used, or were used in the past or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- 2) All interstate waters including interstate wetlands;
- 3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
  - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
- 4) All impoundments of waters otherwise defined as waters of the United States under the definition;
- 5) Tributaries of waters identified in paragraphs (a)(1) through (4) of this section;
- 6) The territorial seas;
- 7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.

The pre-2015 definition of waters of the U.S. was further defined by two Supreme Court cases, namely the 2001 *Solid Waste Agency of Northern Cook County* decision (*Solid Waste Agency of Northern Cook County [SWANCC] v. U.S. Army Corps of Engineers et al.*, 2001) and the 2006 *Rapanos* decisions (*Rapanos v. United States*, 2006).

A water quality certification or waiver pursuant to Section 401 of the CWA is required for all Section 404 permitted actions. The RWQCB, a division of the State Water Resources Control Board, provides oversight of the 401-certification process in California. The RWQCB is required to provide “certification that there is reasonable assurance that an activity that may result in the discharge to waters of the United States will not violate water quality standards.” Water Quality Certification must be based on the finding that proposed discharge will comply with applicable water quality standards.

The National Pollutant Discharge Elimination System (NPDES) is the permitting program for discharge of pollutants into surface waters of the U.S. under Section 402 of the CWA.

### ***Porter-Cologne Water Quality Control Act***

The Porter-Cologne Act provides for statewide coordination of water quality regulations. The State Water Resources Control Board was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis. The RWQCB is the primary agency responsible for protecting water quality in California. As

discussed above, the RWQCB regulates discharges to surface waters under the federal CWA. In addition, the RWQCB is responsible for administering the Porter-Cologne Act.

Pursuant to the Porter-Cologne Act, the state is given authority to regulate waters of the state, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if Section 404 is not required for the activity. "Waste" is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

### ***California Fish and Game Code Section 1600-1602***

Pursuant to Division 2, Chapter 6, Section 1602 of the CFGC, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake that supports fish or wildlife. A Notification of Lake or Streambed Alteration must be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." CDFW has jurisdiction over riparian habitats associated with watercourses and wetland habitats supported by a river, lake, or stream. Jurisdictional waters are delineated by the outer edge of riparian vegetation (i.e., drip line) or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources. CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and applicant is the Lake or Streambed Alteration Agreement.

## **1.4 CONTACT INFORMATION**

### ***Applicant and Property Owner:***

David M. Miller

BNSF

3770 E. 26<sup>th</sup> Street

Los Angeles, CA 90058

David.Miller2@bnsf.com

760-964-8979

### ***Agent:***

Shanti Santulli

Rocks Biological Consulting

2621 Denver Street, Suite B

San Diego, CA 92110

shanti@rocksbio.com



619-674-8067

Agency access to the project site can be coordinated with the applicant and/or agent upon request.

## 2 METHODS

Prior to the on-site delineation, field maps were created using a Geographic Information System (GIS) and a color aerial photograph at a 1:200 scale. RBC staff also reviewed U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) and topography data (Figure 2) and U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) data (Figure 4) to further determine the potential locations of jurisdictional aquatic resources. Google Earth was also utilized to assess current and historic presence or absence of flow in the project area.

RBC regulatory specialists Shanti Santulli and Sarah Krejca conducted the jurisdictional delineation field visit on June 12, 2019 from 1030 to 1230. Field conditions at the beginning of the field visit were 97°F with 0% cloud cover and winds at approximately 0 to 3 miles per hour (mph). Field conditions at the end of the field visit were 97°F with 0% cloud cover and winds at approximately 3 to 5 mph. The project survey area included the proposed project area with a 50-foot buffer for a total of approximately 99.09 acres. Areas with depressions, drainage patterns, and/or wetland vegetation within the proposed project impact area were evaluated for potential jurisdictional status, with focus on the presence of defined channels and/or wetland vegetation, soils, and hydrology. Field staff examined potential jurisdictional wetland areas using the routine determination methods set forth in Part IV, Section D, Subsection 2 of the Corps 1987 *Wetland Delineation Manual* (Wetland Manual) (Environmental Laboratory 1987) and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0* (Arid West Supplement) (Corps 2008a). Areas that met the three parameters per the Arid West Supplement (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology) were considered wetland waters of the U.S./State. RBC staff based wetland plant indicator status (i.e., Obligate [OBL], occurs 99+% in wetlands; Facultative Wetland [FACW], occurs 67-99% in wetlands; Facultative [FAC], occurs 34-66% in wetlands; Facultative Upland [FACU], occurs 1-33% in wetlands; Upland [UPL], occurs 99+% in uplands) on the National Wetland Plant List (NWPL; Corps 2016) and hydric soils indicators on *Field Indicators of Hydric Soils in the United States, Version 8.2* (NRCS 2018). Soil chromas were identified in the field according to *Munsell's Soil Color Charts* (Munsell Color 2015) and using protocols per the Arid West Supplement.

Note that in April 2019 the State Water Resources Control Board adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (the Procedures) which will become effective on May 28, 2020, nine months after the Office of Administrative Law approved the Procedures on August 28, 2019. As detailed in the Procedures, the State Water Resources Control Board and RWQCBs (Water Boards) define a wetland as follows: "An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic

conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation."

Although the Procedures are not yet applicable to this project, the Procedures provide that RWQCB shall rely on a wetland area delineation from a final aquatic resource report verified by the Corps to determine the extent of wetland waters of the State. If any potential wetland areas have not been delineated in a final aquatic resources report verified by the Corps, the limits of such potential wetland waters of the State shall be identified using the same wetland delineation methods per the Corps as described above, except that a lack of vegetation (i.e., less than 5 percent areal coverage of plants during the peak of the growing season) does not preclude an area from meeting the definition of a wetland waters of the State.

Lateral limits of potential non-wetland waters of the U.S./State for the Corps and RWQCB, respectively, were identified using field indicators of an ordinary high water mark (OHWM). An OHWM is defined in 33 CFR 329.11 as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas." RBC staff used *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (Corps 2008b) to estimate the extent of an OHWM in the field. For each feature exhibiting the potential presence of an OHWM, RBC completed a 2010 Arid West Ephemeral and Intermittent Streams OHWM Datasheet following the guidance provided in the *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (OHWM Datasheet; Corps 2010). Per the 2010 OHWM Datasheet, common indicators of an OHWM include a break in slope (i.e., abrupt cut in bank slope created by hydrogeomorphic processes across the landscape), changes in average sediment texture between floodplain units (i.e., low-flow, active floodplain, low terrace), and changes in vegetation species and/or cover between floodplain units.

CDFW potential jurisdictional boundaries were determined based on the presence of lake and/or streambed and riparian habitat or wetland areas supported by a lake or streambed. Lakes include "natural lakes or man-made reservoirs" (14 California Code of Regulations [CCR] § 1.56). Streambeds considered within CDFW jurisdiction were delineated based on the definition of streambed as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation" (14 CCR § 1.72). Riparian habitat refers to vegetation and habitat associated with a stream. CDFW-jurisdictional habitat includes all riparian shrub or tree canopy that may extend beyond the banks of a stream. CDFW follows the U.S. Fish and Wildlife Service (USFWS) wetland definition and classification system, which defines a wetland as transitional land between terrestrial and aquatic systems having one or more of the following attributes: "(1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year" (USFWS 1979). A wetland is presumed

when all three attributes are present; if less than three attributes are present the presumption of a wetland must be supported by “the demonstrable use of wetland areas by wetland associated fish or wildlife resources, related biological activity, and wetland habitat values” (CFGF 1994).

While in the field, potentially jurisdictional features were recorded using a hand-held Global Positioning System (GPS) unit with a level of accuracy ranging from four to 16 feet. RBC staff refined the data using aerial photographs and topo maps with two-foot contours to ensure accuracy. Plants were identified according to The Jepson Manual 2nd edition (Baldwin et al. 2012). RBC staff used the vegetation community classifications mapped by RBC biologists during the March 22, 2018 and January 24, 2019 field surveys (RBC 2019). The vegetation community classifications follow Holland (1986) and nomenclature follows Jepson eFlora (Jepson Flora Project 2019). All figures generated for this jurisdictional delineation report follow the *Corps’ Updated Map and Drawing Standards for the South Pacific Division Regulatory Program* (Corps 2016).

### **3 RESULTS**

#### **3.1 TOPOGRAPHY**

The proposed project site is primarily flat with elevations ranging from approximately 1,080 to 1,400 feet above mean sea level (Figure 2).

#### **3.2 WATERSHED**

The proposed project site is within the Santa Ana Hydrologic Unit Code [HUC] 8 (18070203), Upper Santa Ana River HUC 10 (1807020305), and Warm Creek-Santa Ana River HUC 12 (180702030508) watersheds (Figure 3).

The headwaters of the Santa Ana River originate in the San Bernardino Mountains and flow 100 miles before discharging into the Pacific Ocean (SAWPA 2013). The Santa Ana River Watershed is home to more than 6 million people and drains the largest coastal stream system in southern California (SAWPA 2013). The Upper Santa Ana River HUC 10 encompasses approximately 254 square miles; the Warm Creek-Santa Ana River HUC 12 encompasses approximately 43 square miles (UCD SIG n.d.).

#### **3.3 HYDROLOGY**

USGS NHD does not map any “blue-line streams” within the project survey area (Figure 2). No USFWS NWI features occur within the project survey area (Figure 4).

The known hydrologic sources for the observed on-site drainages, discussed further below, are direct precipitation, road runoff, and surrounding commercial, industrial, and residential uses. The closest blue-line stream is Lytle Creek, located to the southwest of the southernmost portion of the project survey area. Based on review of the USGS NHD web map, Lytle Creek is an intermittent stream which generally flows to the southeast then continues into Warm Creek, then the Santa Ana River, which ultimately connects to the Pacific Ocean (USGS 2018).

RBC accessed Wetlands (WETS) Climate Tables data through the Natural Resources Conservation Service (NRCS) Agricultural Applied Climate Information System (AgACIS) database for the Redlands, California National Weather Service (NWS) station in San Bernardino County (NRCS 2019). Appendix B and Table 1 utilize the Redlands, California station due to its comprehensive historical data and proximity to the project site. WETS tables define the range of normal precipitation and growing season for NWS stations and the “normal” range or precipitation at the 30<sup>th</sup> and 70<sup>th</sup> percentiles of all the data in the precipitation record for that station. Additionally, WETS tables define the growing season to be the approximate period of time between the last and first dates with a 50% likelihood of a 24°F, 28°F, or 32°F frost (Corps 2000). RBC requested data for the past 30 years (1988-2019) to provide the pertinent pre-site visit precipitation data.

Appendix B and Table 1 indicate that the field survey date of June 12, 2019 occurred after a year of normal precipitation for 2018, a higher than normal precipitation period for the months of March and May 2019, and a lower than normal precipitation period for the month of April at the Redlands, California NWS station. Additionally, the field survey date occurred during the 32°F growing season for the Redlands, California NWS station, which the NRCS calculated as 354 days, occurring from January 8 to December 28.

Table 1. WETS Table

WETS Station: REDLANDS, CA								
Requested years: 1988 - 2019								
Month	Avg. Max Temp	Avg. Min Temp	Avg. Mean Temp	Avg. Precip	30% chance precip less than	30% chance precip more than	Avg. number days precip 0.10 or more	Avg. Snowfall
Jan	67.4	41.5	54.5	2.73	0.83	3.24	5	0.0
Feb	67.3	43.1	55.2	2.98	1.26	3.55	5	0.0
Mar	71.9	46.0	58.9	1.72	0.67	2.03	3	0.0
Apr	75.6	48.7	62.1	0.85	0.23	0.90	2	0.0
May	81.1	53.4	67.3	0.36	0.09	0.35	1	0.0
Jun	88.0	57.3	72.6	0.09	0.00	0.03	0	0.0
Jul	94.6	62.9	78.7	0.13	0.00	0.09	1	0.0
Aug	95.7	63.4	79.5	0.09	0.00	0.05	0	0.0
Sep	92.2	60.5	76.4	0.15	0.00	0.06	0	0.0
Oct	82.5	53.6	68.0	0.52	0.11	0.45	1	0.0
Nov	74.0	45.8	59.9	0.75	0.30	0.86	2	0.0
Dec	66.2	40.9	53.6	1.89	0.55	2.09	3	0.0
Annual					8.70	14.29		
Average	79.7	51.4	65.6	-	-	-	-	-
Total	-	-	-	12.23			23	0.0



GROWING SEASON DATES			
Years with missing data:	24 deg = 8	28 deg = 9	32 deg = 9
Years with no occurrence:	24 deg = 24	28 deg = 22	32 deg = 6
Data years used:	24 deg = 24	28 deg = 23	32 deg = 23
Probability	24 F or higher	28 F or higher	32 F or higher
50 percent*	No occurrence	No occurrence	1/8 to 12/28: 354 days
70 percent*	No occurrence	No occurrence	12/17 to 1/20: 399 days

\*Percentage chance of the growing season occurring at the Beginning and Ending dates.

### 3.4 SOILS

Based on the NRCS map of the proposed project site (Figure 4), the following soils occur within the project site boundary and are described below per the USDA's Official Soil Series Description and Series Classification database (NRCS n.d. a):

**Grangeville fine sandy loam, warm MAAT, MLRA 19** - The Grangeville series consists of very deep, somewhat poorly drained soils that formed in moderate coarse textured alluvium dominantly from granitic rock sources. These soils are found primarily on alluvial fans and floodplains and are primarily used for growing alfalfa, grapes, cotton, truck crops, and irrigated pasture. The NRCS lists Grangeville fine sandy loam, warm MAAT, MLRA 19 as hydric under Criteria 2, meaning this soil map unit contains "components in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, or Andic, Cumulic, Pachic, or Vitrandic subgroups that: a) Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or b) Show evidence that the soil meets the definition of a hydric soil" (NRCS n.d. b). The NRCS also lists Grangeville fine sandy loam, warm MAAT, MLRA 19 as hydric under Criteria 4, meaning this soil map unit contains "components that are frequently flooded for long duration or very long duration during the growing season that: a) Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or b) Show evidence that the soils meet the definition of a hydric soil" (NRCS n.d. b).

**Hanford coarse sandy loam, 2 to 9 percent slopes** - The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. These soils are found primarily on stream bottoms, floodplains, and alluvial fans and are primarily used for growing a wide range of fruits, vegetables, and general farm crops. The NRCS does not list Hanford coarse sandy loam, 2 to 9 percent slopes as hydric.

**Tujunga gravelly loamy sand, 0 to 9 percent slopes** - The Tujunga series consists of very deep, somewhat excessively drained soils that formed in alluvium from granitic sources. These soils are found primarily on alluvial fans and floodplains and are primarily used for grazing, citrus, grapes, and urban residential or commercial development. The NRCS lists Tujunga gravelly loamy sand, 0 to 9 percent slopes as hydric under Criteria 2, meaning this soil map unit contains "components in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, or Andic, Cumulic, Pachic, or Vitrandic

subgroups that: a) Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or b) Show evidence that the soil meets the definition of a hydric soil” (NRCS n.d. b). The NRCS also lists Tujunga gravelly loamy sand, 0 to 9 percent slopes as hydric under Criteria 4, meaning this soil map unit contains “components that are frequently ponded for long duration or very long duration during the growing season that: a) Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or b) Show evidence that the soil meets the definition of a hydric soil” (NRCS n.d. b).

***Tujunga loamy sand, 0 to 5 percent slopes*** - The Tujunga series consists of very deep, somewhat excessively drained soils that formed in alluvium from granitic sources. These soils are found primarily on alluvial fans and floodplains and are primarily used for grazing, citrus, grapes, and urban residential or commercial development. The NRCS does not list Tujunga loamy sand, 0 to 5 percent slopes as hydric.

As stated in the Arid West Supplement, RBC used the hydric soils list as a tool and made final hydric soils determinations based on field-collected data at representative wetland delineation sample points deemed appropriate on site as recorded on the attached Arid West Wetland Determination Data Forms (Wetland Data Forms; Appendix C) discussed further below.

### 3.5 VEGETATION

Based on field surveys conducted by RBC biologists on March 22, 2018 and January 24, 2019, the following vegetation communities occur within the project survey area.

***Developed/Disturbed*** – Developed areas that occur within the project survey area include buildings, roads, parking areas, and a railroad line. Disturbed habitat is typically classified as land on which native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a plant association (e.g., disturbed chaparral). Disturbed habitat is typically found in vacant lots, along roadsides, within construction staging areas, and in abandoned fields. The habitat is typically dominated by non-native annual species and perennial broadleaf species, but can also consist of barren areas devoid of vegetation.

***Mule Fat Scrub*** – Mule fat scrub is characterized by localized, dense stands of mule fat (*Baccharis salicifolia*), an erect woody perennial shrub that can grow up to 12 feet tall. Mule fat scrub on-site occurs in small patches at the north end of the project survey area.

***Non-native Grassland*** – Non-native grassland consists of a dense to sparse cover of non-native annual grasses, often with native and non-native annual forbs. This habitat is often found in areas that experienced a previous disturbance.

***Ornamental*** – Ornamental vegetation is typically classified as an area containing planted ornamental, non-native plant species.

***Ruderal*** – Ruderal vegetation is typically found in areas with previous disturbance from vegetation clearing, development, or agricultural activities, and which contain vegetative cover that is comprised of more than 50 percent broad-leaved, non-native species. The ruderal

vegetation community within the project survey area is disturbed to the extent that no natural habitat remains.

Table 2 provides vegetation community acreages within the project survey area (Figure 6A-F) pursuant to biological surveys conducted by RBC biologists in March 2018 and January 2019.

**Table 2. Vegetation Communities within the Survey Area**

Habitat Type	Acreage
Developed/Disturbed	90.63
Mule Fat Scrub	0.12
Non-native Grassland	5.80
Ornamental	0.33
Ruderal	2.21
<b>Total</b>	<b>99.09</b>

### **3.6 FEATURES OBSERVED**

The project survey area consists of primarily flat, developed/disturbed land with some areas of non-native grassland and ruderal habitat. Small patches of mule fat scrub occur with culverted drainages at the north end of the project survey area. Although hydric soils were mapped within the areas of mule fat scrub, RBC did not investigate representative wetland sampling points within the areas of mule fat scrub or complete OHWM Datasheets within the observed drainage features due to safety concerns associated with the high presence of homeless encampments and associated activity within and around this area.

Several velvet ash (*Fraxinus velutina*) dominate an area within the southern portion of the project survey area. Velvet ash is a Facultative Plant (FAC) meaning the species has a similar likelihood of occurring in both wetlands and non-wetlands/uplands per the 2016 Arid West NWPL (Lichvar et al. 2016). Although hydric soils were mapped within this area, due to the presence of a rip-rap basin and concrete ditch and safety concerns associated with the high presence of homeless encampments and activity, RBC did not investigate any representative wetland sample points within the area dominated by velvet ash or complete OHWM Datasheets.

Appendix C provides site photographs of each of the observed features (Feature 1 and Feature 2). Figure 7A-B displays representative photo points.

#### ***Feature 1***

Feature 1 is a sparsely vegetated, ephemeral drainage/ditch located in the northern portion of the project survey area (Figure 5A). Feature 1 travels southeast/south for approximately 345 linear feet before traveling southwest over a maintenance road into the project survey area, through an area of mule fat scrub before continuing under the railroad tracks then travelling southwest for approximately 690 linear feet. Feature 1 is generally earthen-lined except for a 133.3-linear foot concrete-lined portion located underneath the extent of the University Parkway/North State Street overpass. The width of the estimated OHWM measured two feet before Feature 1 traveled under the railroad tracks, after which the estimated OHWM increased

to seven feet then narrowed to three feet at the beginning of the concrete-lined portion until the feature terminated off-site. The width of the estimated top of bank measured two feet before travelling under the railroad tracks, after which the top of bank increased to 12 feet, then narrowed to five feet at the beginning of the concrete-lined portion until the feature continued off-site. The feature continued off-site for approximately 1,930 linear feet before terminating.

### **Feature 2**

Feature 2 is a concrete-lined channel/ditch in the southern portion of the project survey area commencing at two separate points (one originating from the road and one from a culvert under the railroad tracks) before combining into a single channel/ditch after approximately 40 feet (Figure 5B). Feature 2 travels south before entering a riprap basin where some flows continue west into a culvert while other flows continue travelling further south under the U.S. Route 66 overpass before continuing offsite and to the southwest/west for approximately 470 linear feet then entering a storm drain inlet. Based on review of Google Earth imagery and historic aerials, RBC anticipates that flows from this storm drain system eventually enter Lytle Creek although this has not been confirmed.

Note that there was no clearly defined bed and bank within the concrete-lined Feature 2 but the presence of some sediment deposition within the concrete ditch as well as some velvet ash nearby and within the riprap basin indicate that flows occur within Feature 2. The width of the estimated OHWM measured two feet based on the presence of some sediment deposits, while the estimated top of bank measured seven feet before the two segments connected, after which the estimated top of bank increased to nine feet.

## **3.7 JURISDICTIONAL RESOURCES AND ANALYSES**

Feature 1 and Feature 2 would be considered potential ephemeral waters of the State/surface waters per the RWQCB and streambeds/bank per CDFW. As estimated overall, the project survey area supports 0.16 acre (1191 linear feet) of RWQCB-jurisdictional ephemeral waters of the State/surface waters and 0.32 acre (1191 linear feet) of CDFW-jurisdictional ephemeral streambed and associated riparian habitat.

Table 3 and Table 4 provide additional information regarding potential jurisdictional resources, per each applicable regulatory agency, including acreage, linear feet, and average width.

**Table 3. RWQCB Potential Jurisdictional Resources within the Survey Area**

Feature Name	Acreage	Linear Feet	Cowardin Code	Presence of OHWM/Wetland	Dominant Vegetation	Location (lat/long)
Feature 1	0.07	860	U	Yes/No	Primarily unvegetated drainage/ditch	34.156589, -117.334494
Feature 2	0.09	331	U	Yes/No	Concrete channel	34.108989, -117.303434
<b>Total</b>	<b>0.16</b>	<b>1191</b>				



Table 4. CDFW Potential Jurisdictional Resources within the Survey Area

Feature Name	Feature Type	Dominant Vegetation Type	Acreage	Linear Feet	Location (lat/long)
Feature 1	Streambed (Bank)	Unvegetated Drainage/Ditch	0.11	727	34.156589, -117.334494
		Concrete Channel	0.02	133	
	Riparian	Mule Fat Scrub	0.06	0	
Feature 2	Streambed (Bank)	Concrete Channel	0.06	331	34.108989, -117.303434
		Riprap Basin	0.07	0	
Total			0.32	1191	

Section 3.8 provides details on why Feature 1 and Feature 2 are not expected to be considered jurisdictional by the Corps.

### 3.8 NON-JURISDICTIONAL RESOURCES AND ANALYSES

RBC anticipates this report will be submitted to the agencies after changes to the Corps' waters of the U.S. regulations go into effect on December 23, 2019 (i.e., pre-2015 regulations and guidance will apply instead of the current 2015 Clean Water Rule). Furthermore, a revised definition of waters of the U.S. is anticipated to be published as early as January 2020, but its effective date, if applicable, remains uncertain. Given the above, for purposes of this jurisdictional delineation report, the non-jurisdictional status of Feature 1 and Feature 2 is analyzed under the current 2015 Clean Water Rule as well as the pre-2015 regulations and guidance that will be effective on December 23, 2019.

While potentially jurisdictional per CDFW and/or the RWQCB, Feature 1 and Feature 2 do not meet the Corps' definition of waters of the U.S. under the current 2015 Clean Water Rule or per pre-2015 regulations and guidance. Feature 1 and Feature 2 were primarily unvegetated and/or concrete-lined and appeared excavated to route flows from the adjacent developed areas, including the adjacent railroad.

Feature 1 did not convey flows into potentially jurisdictional waters per field observation or aerial photograph review. Based on a review of Google Earth, NetOnline Historic Aerials, and the University of California – Santa Barbara database it was difficult to confirm when Feature 1 was created since available historic aerials only date back to 1930 (i.e., after the railroad was constructed) (Appendix D). Yet, it appears that flows in this area have increased since 2007/08 when University Parkway/North State Street was constructed; flows prior to this date are difficult to discern. Therefore, based on RBC staff's best professional judgement and observations in the field, Feature 1 appears to be a ditch created in uplands to reroute sheet flows from the adjacent developed areas, specifically University Parkway/North State Street, and direct flows away from the railroad tracks.

Based on a review of Google Earth, NetOnline Historic Aerials, and the University of California – Santa Barbara database, Feature 2 appears to be a ditch created in uplands designed to direct

flows from Spruce Street, North I Street, and the railroad tracks into an off-site storm drain outlet. RBC anticipates that flows from the storm drain system eventually enter Lytle Creek although this has not been confirmed. Note that historic aerials prior to 1930 and prior to construction of the railroad tracks are not available for this area. Based on an aerial from 1930, homes were previously located within the off-site area through which Feature 2 travels. Between 1930 and 1953, the homes were demolished. Subsequently, the expansion of West 5<sup>th</sup> Street and the associated right-of-way occurred between 1930 and 1953 (Appendix D). There is no evidence that a natural feature existed in this area, although flows prior to 1930 are difficult to ascertain based on the lack of historic information.

Given the above rationale, RBC does not expect Feature 1 or Feature 2 would be considered jurisdictional by the Corps either under the current 2015 Clean Water Rule in place at the time this jurisdictional delineation report was prepared or under the pre-2015 regulations and guidance anticipated to go into effect on December 23, 2019, as these features appeared to be human-made ditches excavated wholly in and draining only uplands for residential or road runoff-conveyance purposes and did not show indicators of federal wetland parameters. Thus, based on the pertinent regulations in place at the time this jurisdictional delineation report was prepared, Feature 1 and Feature 2 should be considered ditches “with ephemeral flow that are not a relocated tributary or excavated in a tributary” per 33 C.F.R. 328.3(b)(3)(i) and ditches “that do not flow, either directly or through another water,” into a 33 C.F.R. 328.3 (a)(1) – (a)(3) water per 33 C.F.R. 328.3(b)(3)(iii).

Based on the pre-2015 regulations and guidance anticipated to go into effect on December 23, 2019, per 2008 *Rapanos* guidance, Feature 1 and Feature 2 would be considered ditches “excavated wholly in and draining only uplands” that do “not carry a relatively permanent flow of water” (U.S. Environmental Protection Agency 2008).

Note that during the March 2018 and January 2019 biological surveys, RBC biologists mapped several areas of mule fat scrub within the northern portion of the project survey area (Figure 6A). The northernmost area of mule fat scrub, as shown on Figure 6A and in Photo 6 of Appendix C, was not associated with a streambed or wetland as it consisted of a single mule fat (*Baccharis salicifolia*) with no drainage patterns in the surrounding area. The area of mule fat scrub to the southeast of N State Street, as shown on Figure 6A and in Photo 7 of Appendix C, was within a slightly depressional area which may allow for ponding but was not associated with a streambed or wetland as there was no defined bed or bank. Therefore, these two isolated areas of mule fat scrub are not considered jurisdictional by the Corps, RWQCB, or CDFW as they are not considered a non-wetland or wetland water of the U.S./State or surface water.

Table 5. Corps Non-Jurisdictional Resources in the Survey Area

Feature Name	Acreage	Linear Feet	Cowardin Code	Location (lat/long)
Feature 1	0.07	860	U	34.156589, -117.334494
Feature 2	0.09	331	U	34.108989, -117.303434
Total	0.16	1191		

## 4 CONCLUSION

Based on RBC's field and desktop analysis of the project survey area, the project survey area supports 0.16 acre (1191 linear feet) of RWQCB-jurisdictional ephemeral waters of the State/surface waters (Table 3) and 0.32 acre (1191 linear feet) of CDFW-jurisdictional ephemeral streambed and associated riparian habitat (Table 4). RBC expects that Feature 1 and Feature 2 would not be considered jurisdictional by the Corps (Table 5).

Assuming the Corps finalizes the AJD and concludes that Feature 1 and Feature 2 are not jurisdictional, no Corps permitting would be required for the proposed project. Impacts on RWQCB and CDFW jurisdictional features would require Waste Discharge Requirements (WDR) and a Streambed Alteration Agreement, respectfully. Note that per recent guidance from the Santa Ana RWQCB, despite the potential for Feature 1 and Feature 2 to be deemed jurisdictional, a WDR may not be required if the RWQCB determines that project activities would likely not cause detrimental impacts from the discharge of fill to the designated beneficial uses of the waters of the State. Additionally, compensatory mitigation may be required by the regulatory agencies to offset the proposed project impacts. However, given the disturbed and developed nature of the features on site and their limited aquatic resource functions, RBC expects the RWQCB and/or CDFW would require minimal or no compensatory mitigation.

The jurisdictional analysis provided in this report includes RBC's anticipated extent of jurisdictional resources within the project survey area based on regulatory law, guidance, and standard operating procedures of the pertinent regulatory agencies. The jurisdictional acreages and linear feet estimated in this report represent the existing conditions during the time of the field surveys and do not quantify project impacts. Impact calculations should be provided separately via a project impacts analysis memo and/or pertinent application forms. Please note that the applicable agencies will make final jurisdictional determinations and permitting-related decisions. RBC recommends early coordination with the resource agencies to determine the final jurisdictional boundaries, applicable permitting processes, compensatory mitigation requirements, and other potential permitting issues specific to the proposed project. Agency representatives may request to access the site to field-verify the results of this jurisdictional delineation report with the project applicant, or a designated representative.

The information provided in this report should remain valid for up to five years from the date of the field effort for the jurisdictional delineation unless site conditions change substantially, or a regulatory agency requires an updated report.

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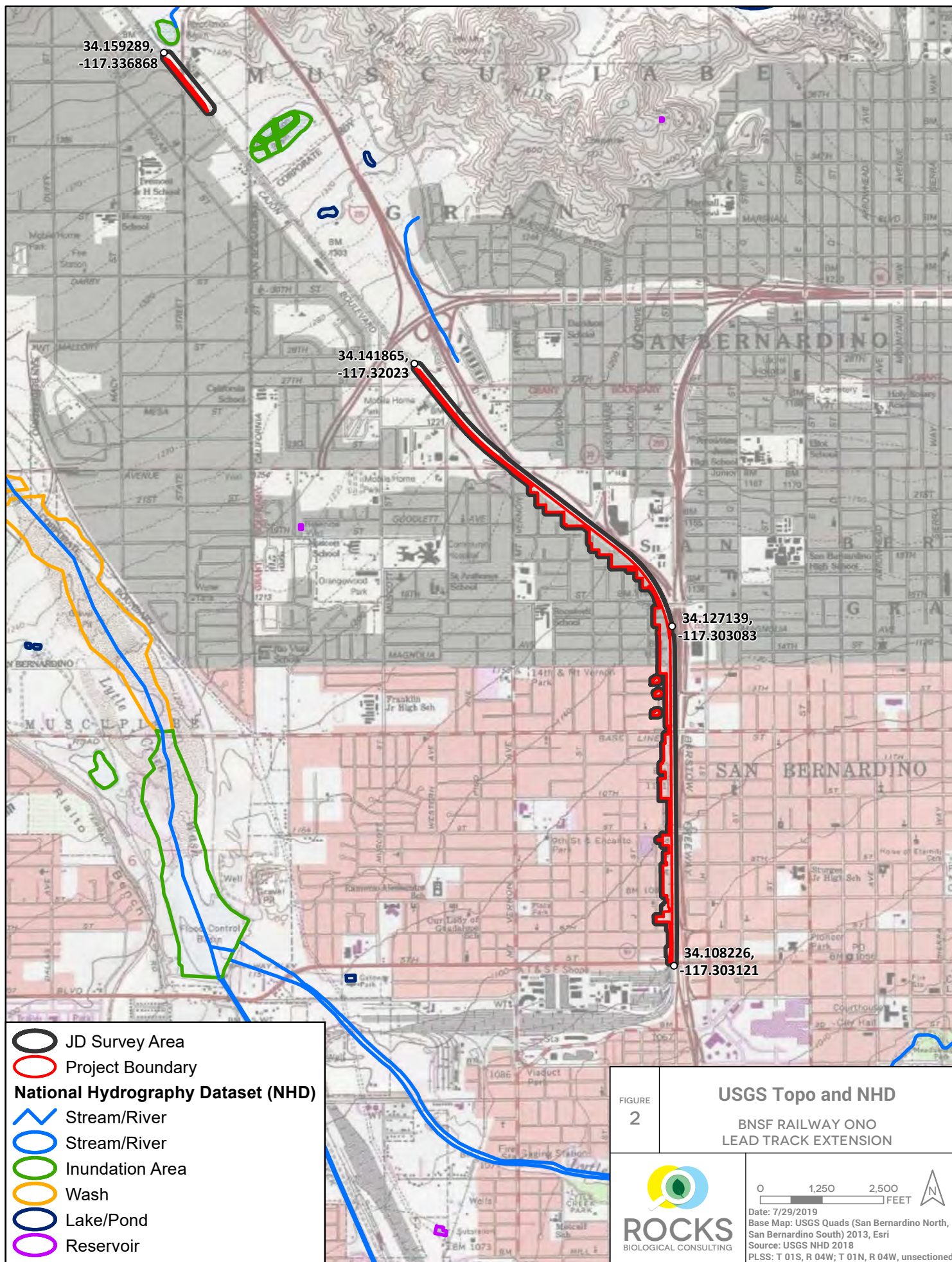
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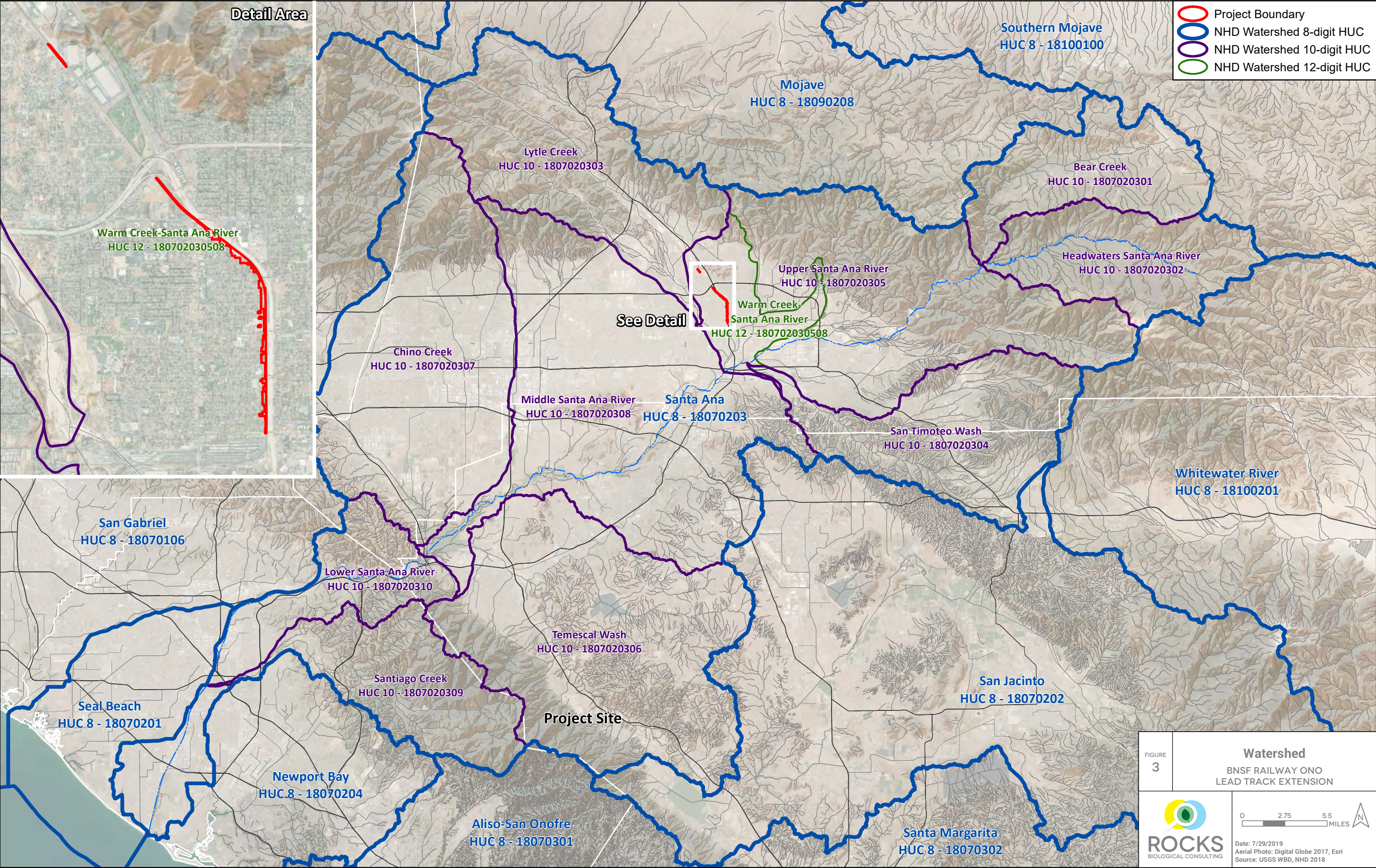
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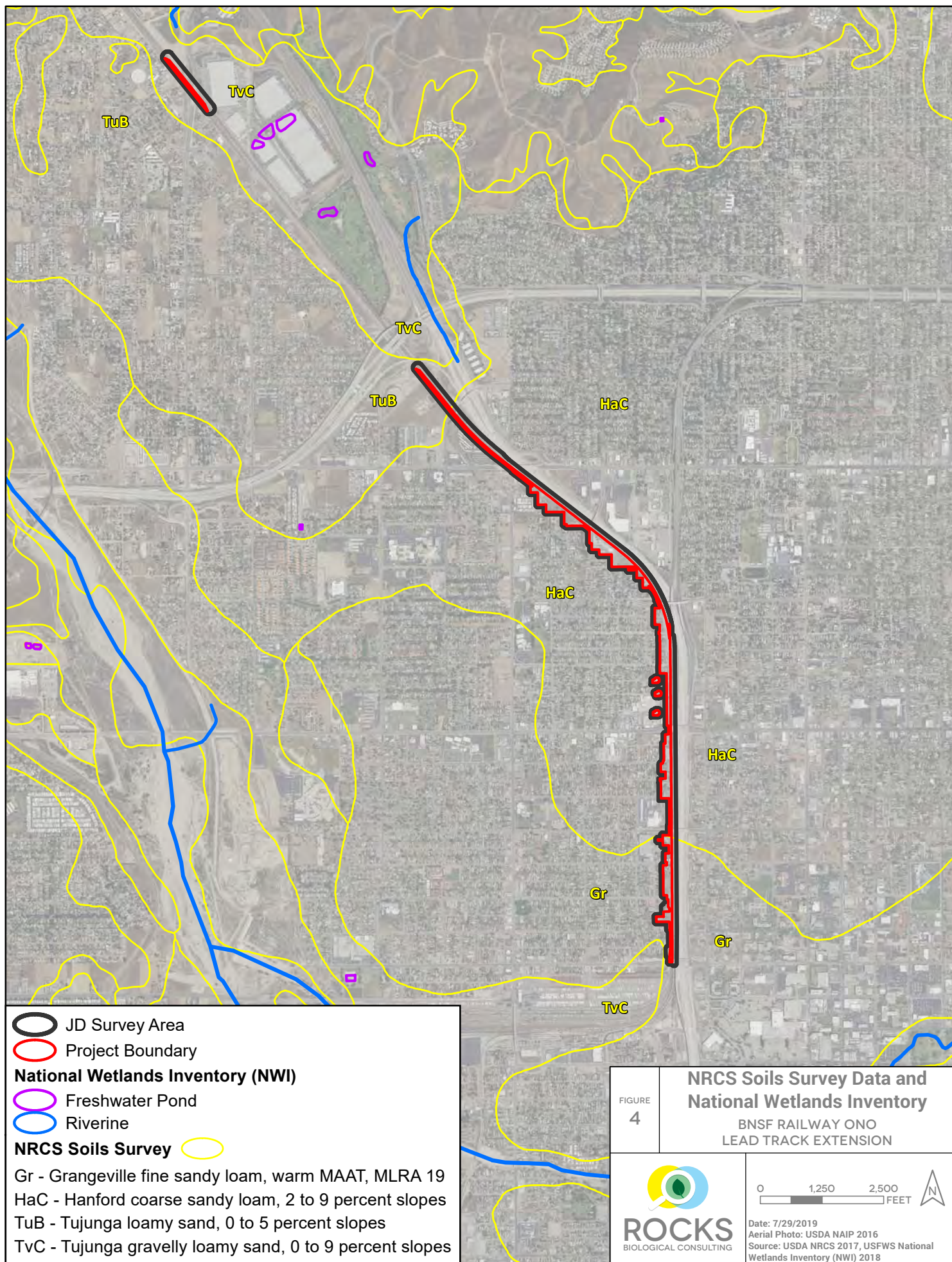












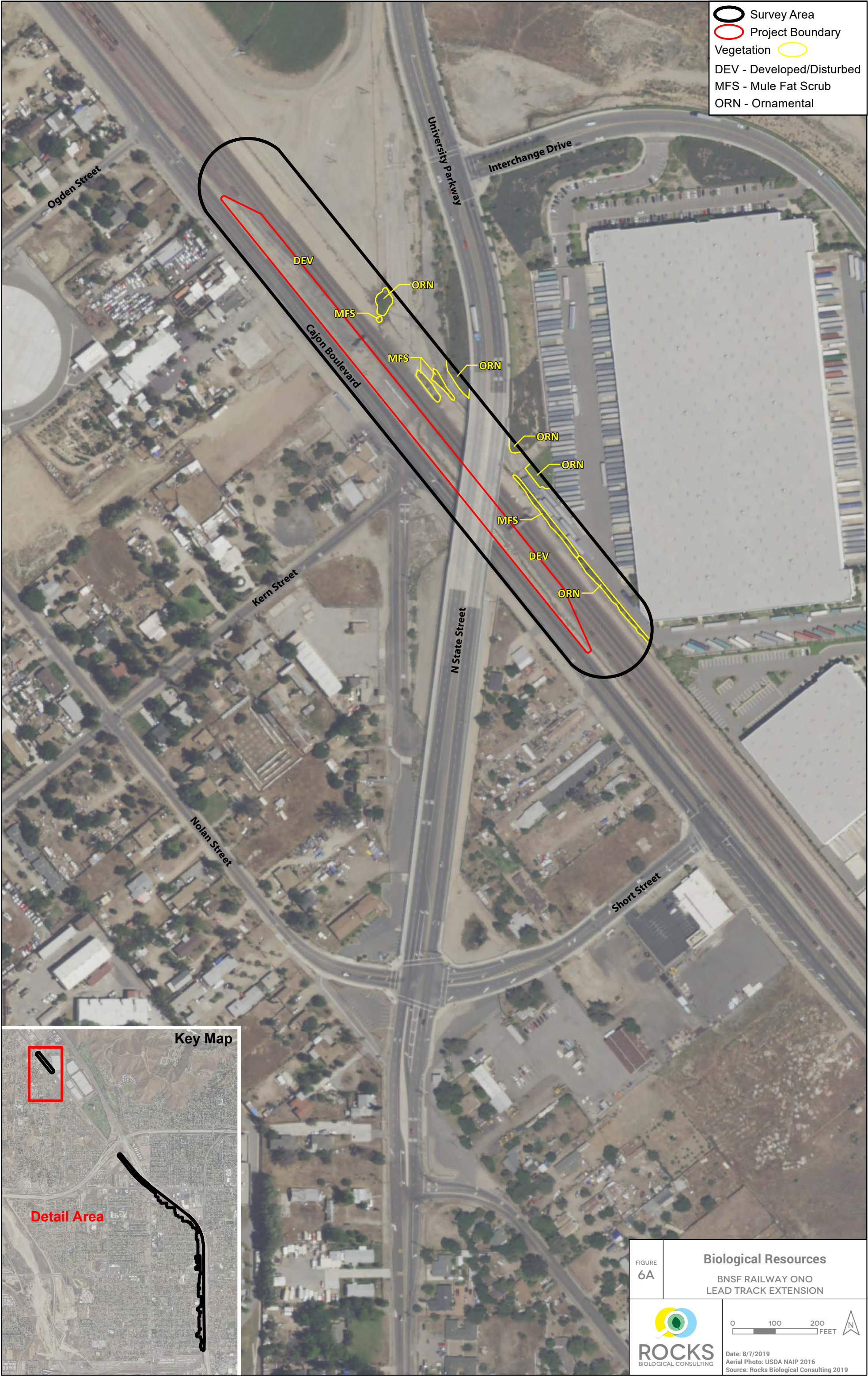








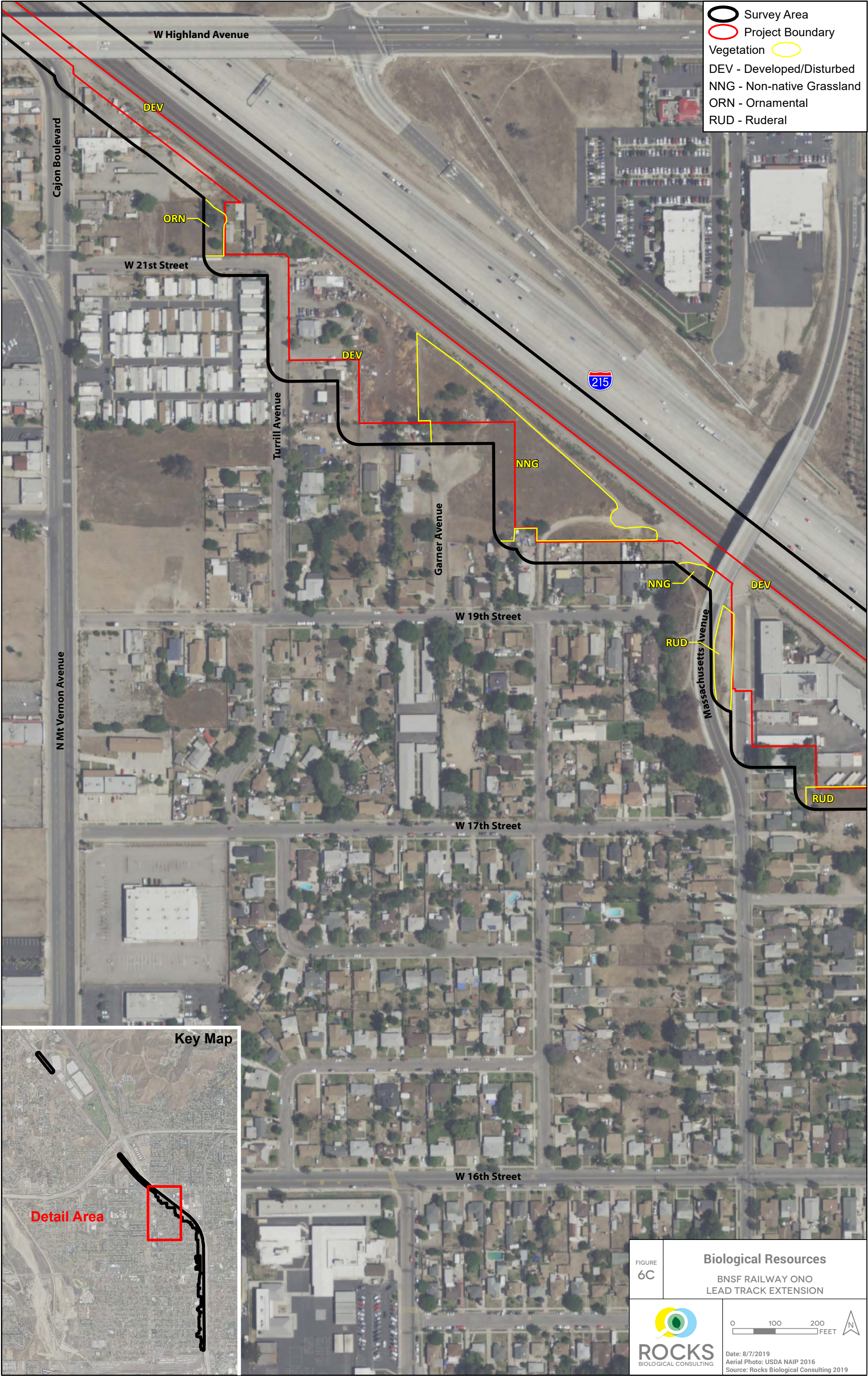








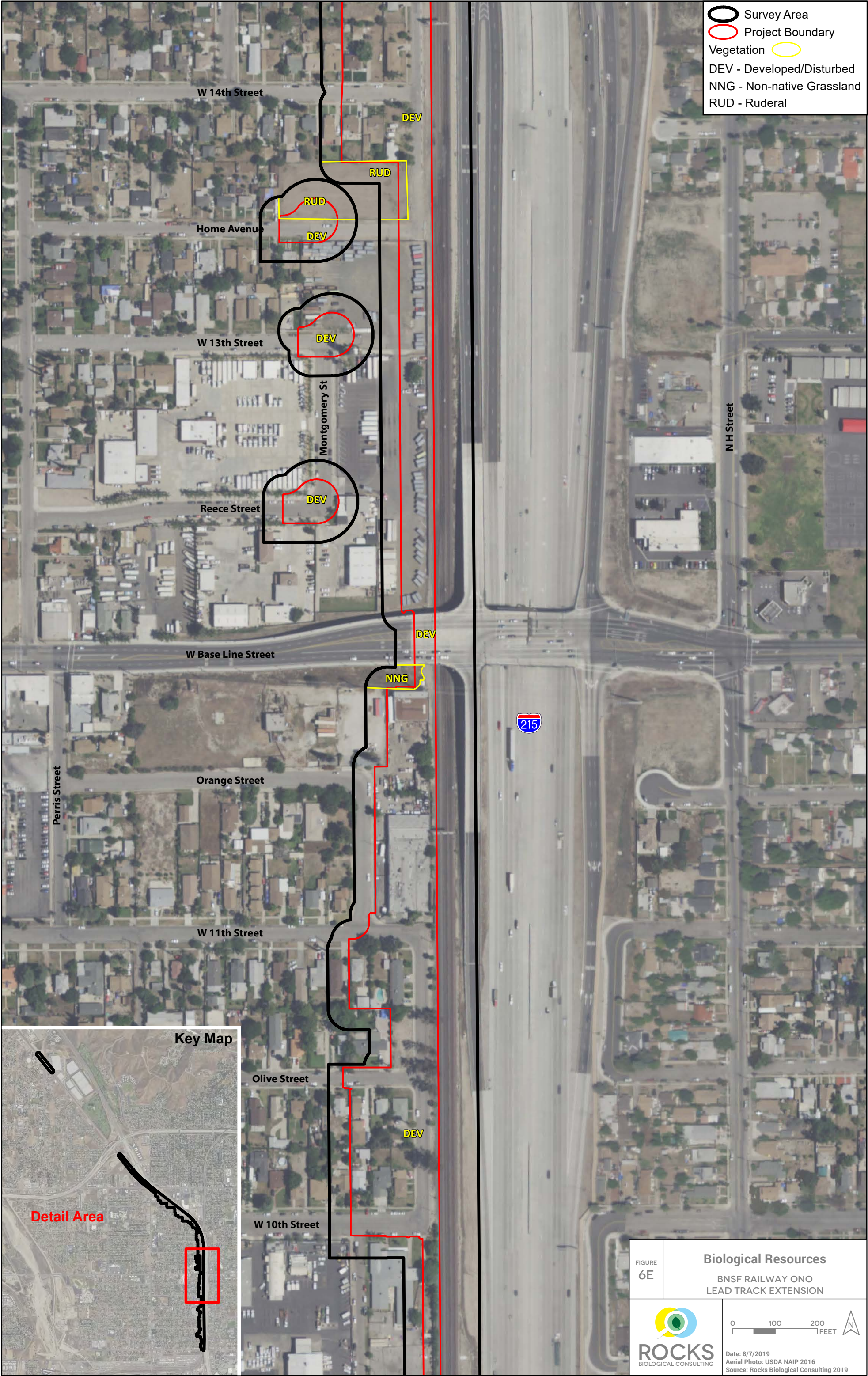




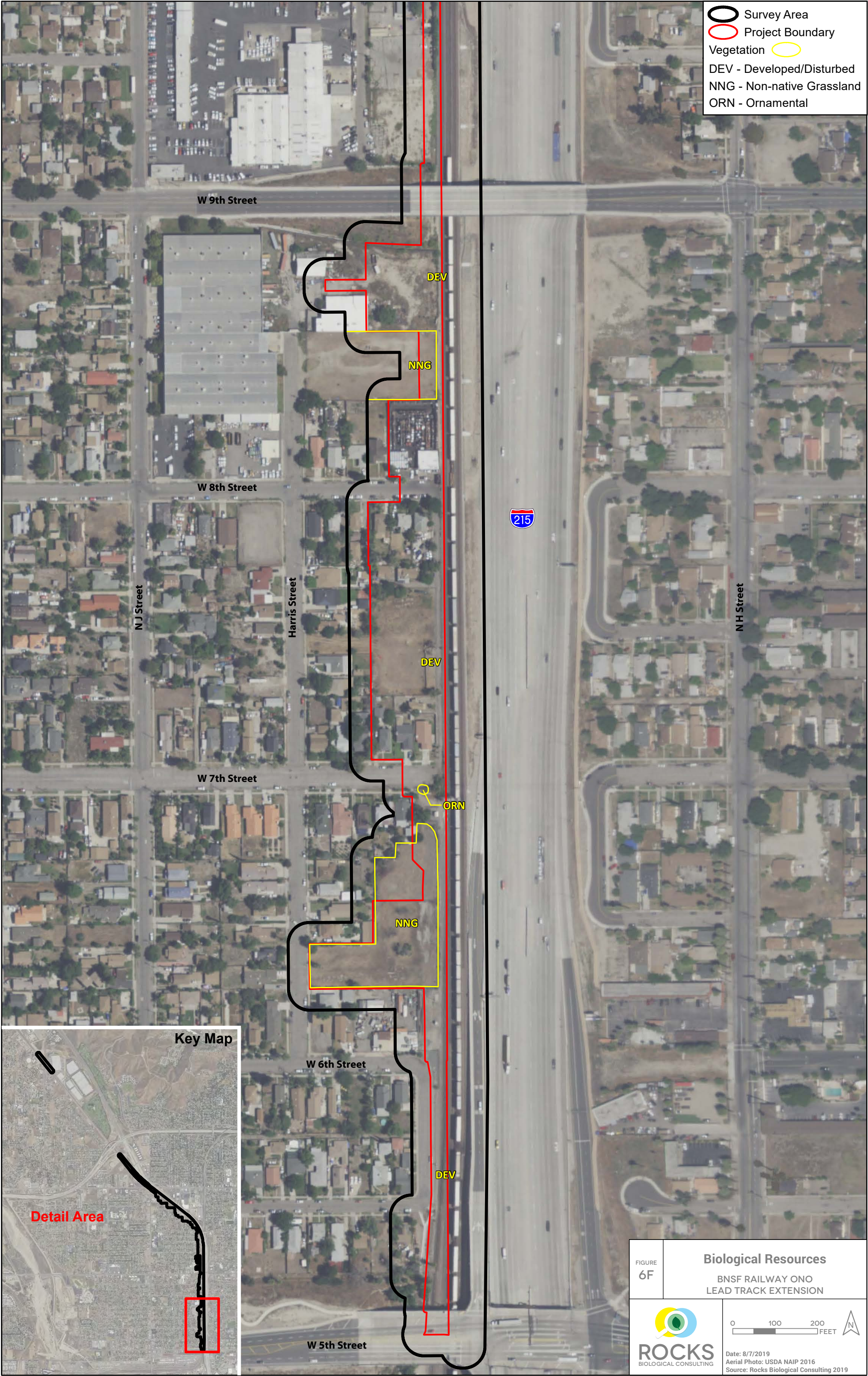








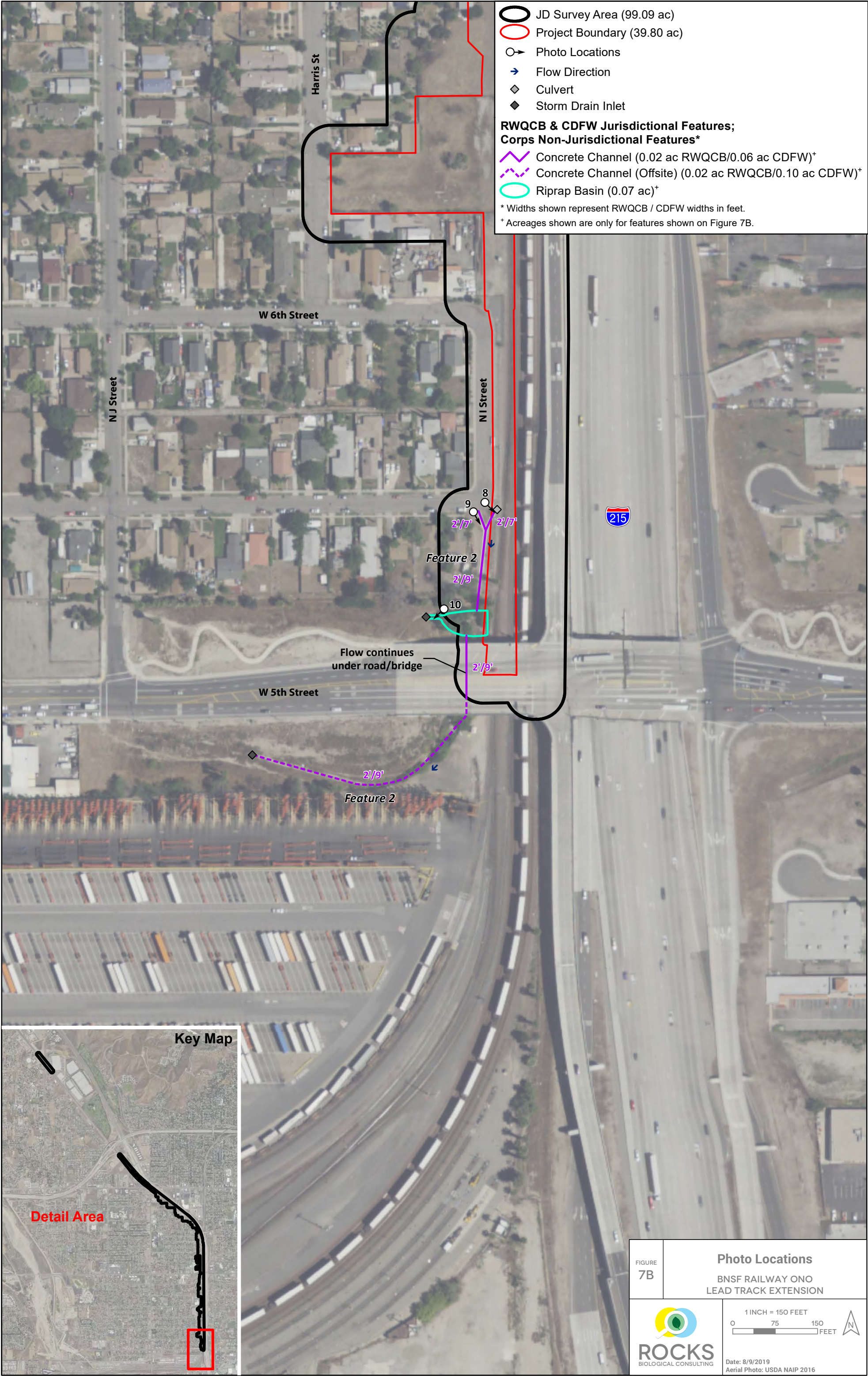














## **APPENDIX A**

**CHECKLIST: MINIMUM STANDARDS FOR ACCEPTANCE  
OF AQUATIC RESOURCES DELINEATION REPORTS, LOS  
ANGELES DISTRICT REGULATORY DIVISION, CORPS**



# CHECKLIST: MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS, LOS ANGELES DISTRICT REGULATORY DIVISION, USACE, MARCH 16, 2017

REPORT SECTION/ PAGE NUMBER	MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS	ADDITIONAL NOTES
Section 1 and Appendix E	JD REQUEST AND FORMS: A cover letter indicating whether you are requesting a jurisdictional determination (JD). If you are requesting a JD, you must complete, sign, and return the Request for Corps Jurisdictional Determination (JD) sheet. For preliminary jurisdictional determinations the Preliminary Jurisdictional Determination Form must be signed and submitted.	
Section 1.4	CONTACT INFORMATION: Contact information for the applicant(s), property owner(s), and agent(s).	
N/A	SITE ACCESS: If the property owner or their representatives will not accompany the Corps to the site, a signed statement from the property owner(s) allowing Corps personnel to enter the property and to collect samples during normal business hours. If the property lacks direct access by public roads (in other words, access requires passage through private property not owned by the applicant), the owner or proponent must obtain permission from the adjacent property owner(s) to provide access for Corps personnel.	Property owner and/or representatives will accompany the Corps for a site visit upon request.
Section 1.1	LOCATION: Directions to the survey area, an address (if available) and one or more set of geographic coordinates expressed in decimal degrees.	
Section 2, Paragraphs 2 and 5	DELINEATION MANUAL CONFIRMATION: A statement confirming the delineation has been conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and applicable regional supplement(s). The regional supplement(s) used must be identified. For OHWM delineations, a statement must be included confirming the use of the OHWM field guide or that it is not applicable.	
Section 3.6	AQUATIC RESOURCE(S) DESCRIPTION: A narrative describing all aquatic resources on-site and an explanation of the mapped boundaries and any complex transition zones. If the site contains resources that only meet one or two of the three wetland criteria or do not exhibit a clear OHWM, describe the rationale for their inclusion or exclusion from the delineation. Also explain if any erosional features, upland swales, ditches and other potential aquatic features were considered but not included in the delineation.	
Figure 5A-B, Tables 3, 4, and 5	AQUATIC RESOURCE MAPPING AND ACREAGE: Map the outside survey boundary, total extent of aquatic and proposed non-aquatic features, type of feature(s) (waters of the United States or wetland), and include the total acreage for each polygon.	
Section 2, Paragraph 2	FIELD WORK DATES: Date(s) field work was completed.	
Tables 3, 4, and 5	AQUATIC RESOURCE TABLE: A table listing all aquatic resources. The table must include the name of each aquatic resource (actual or arbitrary), its Cowardin type, acreage, summary of OHWM/wetland presence, dominant vegetation for each, and location (latitude/longitude in decimal degrees). For linear features, the table must show both acreage and linear feet as well as channel measurements (active channel width).	
Section 1.1 and 2, Appendix B	FIELD CONDITIONS: A description of existing field conditions, including current land use, normal conditions, flood/drought conditions, irrigation practices, past or recent manipulation to the site, and	

# CHECKLIST: MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS, LOS ANGELES DISTRICT REGULATORY DIVISION, USACE, MARCH 16, 2017

	characteristics considered atypical (for criteria see OHWM and wetland supplement guides). Include WETS tables or pre-site visit precipitation data as appropriate: <a href="https://www.wcc.nrcs.usda.gov/climate/wets_doc.html">https://www.wcc.nrcs.usda.gov/climate/wets_doc.html</a> .	
Section 3.3	HYDROLOGY: A discussion of the hydrology at the site, including all known surface or subsurface sources, drainage gradients, downstream connections to the nearest traditional navigable waterway or interstate water, and any influence from manmade water sources such as irrigation.	
N/A	REMOTE SENSING: If remote sensing was used in the delineation, provide an explanation of how it was used and include the name, date and source of the tools and data used and copies of the maps/photographs.	
Section 3.4, Figure 4	SOILS: Soil descriptions, soil map(s), soil photos, and a discussion of hydric soils (for wetland delineations only).	
Figure 2	USGS QUADRANGLE: A site location map on a 7.5-minute USGS quadrangle. The map must provide the name of the USGS quadrangle, Section, Township, Range, and the latitude and longitude in decimal degree format.	
N/A	BULK UPLOAD FORM: For sites with 3 or more separate aquatic features a completed copy of the ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet must be submitted.	
Figure 5A-B	FIGURES: Map(s) of all delineated aquatic resources in accordance with the Final Map and Drawing Standards for the South Pacific Division Regulatory Program, available at: <a href="http://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/651327/updated-map-and-drawing-standards/">http://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/651327/updated-map-and-drawing-standards/</a>	
Figure 7A-B and Appendix C	SITE PHOTOGRAPHS: Ground photographs showing representative aquatic resource sites (or lack of), as well as an accompanying map of photo-points and table of photographic information (see Final Map and Drawing Standards for the South Pacific Division Regulatory Program item no. 8 a-c).	
N/A	DATA FORMS: Completed data forms including all essential information to make a jurisdictional determination [e.g. 2006 Wetland Determination Data Form -- Arid West Supplement; 2010 Arid West Ephemeral and Intermittent Streams OHWM Datasheet].	
Section 2	METHODS: A description of the methods used to survey the aquatic resource boundaries. If GPS data is used, the level of accuracy must be included. Ideally, the GPS equipment should have the capability of sub-meter ( $\leq 1$ meter) level horizontal accuracy.	
Appendix F	GIS DATA: Digital data for the site, aquatic resource boundaries, and data point locations must be provided in a geographic information system (GIS) format, preferably either ESRI shapefiles or Geodatabase format, but GoogleEarth KMZ or KML files may be acceptable non-complex projects. Each GIS data file must be accompanied by a metadata file containing the appropriate geographic coordinate system, projection, datum, and labeling description. If GIS data is unavailable or otherwise cannot be produced and the Corps determines a site visit is necessary, the aquatic resource boundaries should be physically marked with numbered flags or stakes to facilitate verification by the Corps.	



## **APPENDIX B**

### **NRCS WETS TABLE**

## WETS Table

WETS Station: REDLANDS, CA								
Requested years: 1988 - 2019								
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall
Jan	67.4	41.5	54.5	2.73	0.83	3.24	5	0.0
Feb	67.3	43.1	55.2	2.98	1.26	3.55	5	0.0
Mar	71.9	46.0	58.9	1.72	0.67	2.03	3	0.0
Apr	75.6	48.7	62.1	0.85	0.23	0.90	2	0.0
May	81.1	53.4	67.3	0.36	0.09	0.35	1	0.0
Jun	88.0	57.3	72.6	0.09	0.00	0.03	0	0.0
Jul	94.6	62.9	78.7	0.13	0.00	0.09	1	0.0
Aug	95.7	63.4	79.5	0.09	0.00	0.05	0	0.0
Sep	92.2	60.5	76.4	0.15	0.00	0.06	0	0.0
Oct	82.5	53.6	68.0	0.52	0.11	0.45	1	0.0
Nov	74.0	45.8	59.9	0.75	0.30	0.86	2	0.0
Dec	66.2	40.9	53.6	1.89	0.55	2.09	3	0.0
Annual:					8.70	14.29		
Average	79.7	51.4	65.6	-	-	-	-	-
Total	-	-	-	12.26			23	0.0

## GROWING SEASON DATES

Years with missing data:	24 deg = 8	28 deg = 9	32 deg = 9
Years with no occurrence:	24 deg = 24	28 deg = 22	32 deg = 6
Data years used:	24 deg = 24	28 deg = 23	32 deg = 23
Probability	24 F or higher	28 F or higher	32 F or higher
50 percent *	No occurrence	No occurrence	1/8 to 12/28: 354 days
70 percent *	No occurrence	No occurrence	12/17 to 1/20: 399 days

\* Percent chance of the growing season occurring between the Beginning and Ending dates.

STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1898				M0.32	1.67	MT		T	0.01	0.01	0.25	0.40	2.66
1899		0.71	1.50	0.08	0.24	0.87	0.00	0.04	0.05	0.65	1.28	0.46	5.88
1900	M1.23	T	0.78	2.03	1.41	0.00	0.04		0.50	0.53	3.88	0.00	10.40
1901	2.25	3.79	0.46	MT	1.62	0.04	0.00	0.00		0.92	0.09	T	9.17
1902	1.64	M2.60	2.82	0.36	0.08	0.31	0.07	0.00	0.00	0.06	1.40	M0.90	10.24
1903	1.16	1.41	5.86	3.88	0.48	0.00	0.00	0.21	0.54	0.06	0.00	0.00	13.60
1904	0.29	1.50	4.55	0.82	0.48	0.00	0.00	0.18	0.00	0.26	0.00	0.24	8.32
1905	6.15	6.74	5.53	0.27	1.16	0.00	0.00	0.00	0.00		2.38	1.29	23.52



1906	1.48	M3.04	6.15	1.30	0.79	0.14	0.00	0.04	0.19	0.00	2.72	5.21	21.06
1907	5.90	2.03	4.30	0.47	0.38	0.61	0.00	0.00	0.00	3.37	0.24	0.77	18.07
1908	4.44	3.12	1.56	0.52	0.30	0.04	T	0.22	1.31	0.96	0.02	0.98	13.47
1909	5.06	2.87	2.25	0.16	0.57	0.07	T	0.19	0.06	0.05	1.67	4.43	17.38
1910	1.99	0.19	1.57	0.25	0.00	0.07	0.38	MT	0.20	0.51	0.48	0.67	6.31
1911	4.44	3.88	2.24	0.68	0.45	T	T	T	1.03	0.71	0.34	1.35	15.12
1912	0.37	0.00	5.87	M3.35	M1.68	0.00	0.16	T	0.03	1.11	0.34	0.01	12.92
1913	1.10	M4.14	0.56	0.50	0.30	0.21	0.12	0.35	0.00	0.00	2.82	0.67	10.77
1914	7.37	4.26	1.65	2.94	0.09	0.17	0.00	0.00	0.00	0.73	0.33	2.27	19.81
1915	5.18	4.87	1.57	2.73	1.89			0.29	0.02		0.86	3.13	20.54
1916	10.64	1.10	1.65	0.12	0.39	0.00	M0.03	0.34	M1.82	1.68	M0.03	2.07	19.87
1917	M3.00	M2.82	M0.25	M1.21	0.82		M0.65	M0.04			M0.25		9.04
1918	M0.57	2.48	7.22	M0.14	M0.53	M0.02	M0.08	0.64	M0.07	0.82	1.13	M2.03	15.73
1919	M0.59	2.70	M2.45	0.82	M0.89			M0.09	M1.62	M0.36	1.70	M0.77	11.99
1920	M0.68	M4.26	M4.84	M0.89	0.61	0.00	0.00	0.00	0.21	1.30	0.22	1.07	14.08
1921	3.51	1.21	2.77	0.23	2.77		T	M0.09	0.30	1.82	0.15	M10.09	22.94
1922	5.80	2.66	2.39	0.85	1.35	0.00	T	0.00	0.00	0.37	1.43	3.01	17.86
1923	2.14	1.13	0.91	2.32	0.00	0.00	MT	0.03	M0.25	0.26	1.97	2.54	11.55
1924	M0.15		3.03	M2.92	0.00	0.00	0.00	0.00	0.00	0.51	1.53	M2.01	10.15
1925	0.18	0.42	M2.06	1.81	0.31	0.82	0.03	0.28	0.00	2.86	1.38	1.23	11.38
1926	0.82	2.73	0.24	8.30	0.64	0.00	0.00	0.03	0.00	0.04	M1.77	2.45	17.02
1927	0.86	8.41	3.23	0.45	0.22	0.04	0.05	0.00	0.00	2.41	1.43	3.19	20.29
1928	0.33	2.13	1.22	0.13	1.59	0.04	0.00	0.00	0.00	0.88	1.12	1.74	9.18
1929	1.74	1.63	1.26	2.48	T	0.04	0.00	0.10	0.59	T	0.00	0.00	7.84
1930	5.57	1.00	4.43	0.98	4.13	0.00	0.00	0.00	0.00	2.18	1.25	0.00	19.54
1931	2.00	4.51	0.53	2.22	0.86	0.24	0.00	0.24	0.28	1.91	3.04	3.84	19.67
1932	1.04	6.72	0.21	0.95	T	0.64	0.00	0.00	0.00	0.52	0.00	3.52	13.60
1933	5.08	0.16	0.22	1.72	0.67	0.08	0.00	0.02	0.00	0.13	0.29	3.32	11.69
1934	1.75	1.90	0.07	0.06	0.00	0.41	0.00	0.37	0.15	2.15	0.71	3.28	10.85
1935	2.81	3.10	2.23	1.30	0.00	0.00	0.00	1.78	0.10	0.12	0.51	0.52	12.47
1936	T	7.55	1.65	0.71	0.00	0.00	0.03	0.00	0.00	5.49	0.10	6.63	22.16
1937	2.46	5.88	5.08	0.48	0.40	0.02	0.00	0.00	0.00	0.00	0.07	2.14	16.53
1938	1.89	4.39	7.30	1.29	0.47	T	0.07	0.00	0.04	0.55	0.00	4.13	20.13
1939	2.32	1.66	1.77	1.85	0.05	0.00	T	0.00	3.45	0.34	1.34	0.42	13.20

1940	3.40	3.70	1.31	2.16	0.00	T	0.00	0.00	0.00	0.00	1.37	0.92	5.70 18.56
1941	1.33	4.51	7.46	2.95	0.27	0.04	0.00	0.70	0.00	0.00	2.52	0.50	3.85 24.13
1942	0.33	0.84	1.12	2.46	0.00	0.00	0.00	0.52	0.00	0.00	0.81	0.25	1.31 7.64
1943	8.20	3.44	4.63	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.03	5.35 24.93
1944	0.94	7.12	1.81	1.57	0.02	0.06	0.00	0.00	0.00	0.00	0.00	4.52	0.93 16.97
1945	0.32	2.43	3.98	0.20	0.00	0.03	0.00	1.11	0.42	0.38	0.00	0.18	3.91 12.96
1946	0.08	0.62	2.35	0.77	0.01	0.00	0.28	0.00	0.20	1.13	0.00	5.38	2.71 13.53
1947	0.21	0.99	1.12	0.83	0.14	0.00	0.00	0.05	0.18	0.03	0.00	0.04	1.67 5.26
1948	0.00	2.01	1.60	0.74	0.10	0.93	0.00	0.00	0.00	1.29	0.00	2.20	8.87
1949	3.85	1.83	1.14	0.05	1.19	0.00	0.00	0.00	0.00	0.14	M1.74	1.56	11.50
1950	1.33	2.59	0.97	0.77	0.25	0.03	0.00	0.00	0.33	0.00	0.00	1.35	0.00 7.62
1951	2.46	0.64	0.55	1.81	0.62	0.00	0.28	0.10	0.55	0.53	0.00	0.99	5.22 13.75
1952	5.62	0.16	5.04	3.06	T	0.00	0.00	0.00	1.37	0.00	M3.41	3.10	21.76
1953	1.57	0.45	1.28	1.73	0.34	0.04	0.00	0.00	0.00	0.00	0.00	0.82	0.00 6.23
1954	5.30	1.78	4.43	0.18	0.08	0.05	0.06	0.00	0.00	0.00	0.00	2.42	0.68 14.98
1955	3.37	1.29	0.20	0.40	1.41	0.06	0.03	0.05	0.00	0.00	0.00	1.02	1.24 9.07
1956	4.48	0.47	0.01	1.85	0.54	0.00	0.00	0.00	0.00	0.20	0.00	0.42	7.97
1957	4.73	0.77	1.17	1.77	1.70	0.18	M0.90	0.00	0.00	2.15	M0.32	1.93	15.62
1958	1.32	3.51	4.58	3.30	0.23	0.01	0.00	0.01	0.79	0.70	0.00	0.29	0.00 14.74
1959	0.84	2.98	0.00	0.12	0.12	0.01	T	T	0.08	0.30	0.00	0.71	2.57 7.73
1960	2.42	2.15	0.67	1.01	0.24	0.00	0.00	0.00	0.44	0.36	0.00	1.25	0.16 8.70
1961	0.66	T	1.03	0.05	0.09	0.00	T	0.02	0.01	T	0.00	1.13	1.87 4.86
1962	2.36	5.33	1.52	0.05	0.52	M0.03	0.00	0.00	0.00	0.11	T	T	9.92
1963	0.38	2.55	2.25	1.81	0.00	0.31	0.00	0.14	2.96	1.25	2.08	0.05	13.78
1964	1.63	0.23	2.27	0.84	0.30	0.09	0.19	T	0.10	0.18	0.00	1.57	0.97 8.37
1965	0.38	0.36	1.82	4.74	0.14	0.07	0.09	0.20	0.62	0.00	0.00	7.64	3.07 19.13
1966	1.10	1.11	0.38	0.05	0.10	T	0.02	0.00	0.27	0.52	0.00	0.70	8.07 12.32
1967	2.85	0.00	1.99	2.60	0.33	0.17	0.00	0.51	0.32	0.00	0.00	3.00	1.92 13.69
1968	0.59	0.41	1.78	1.11	0.30	0.09	0.48	0.04	0.00	0.16	0.00	0.49	1.04 6.49
1969	9.76	9.91	1.36	0.84	1.14	0.11	0.07	0.00	0.31	0.03	0.00	1.30	0.06 24.89
1970	1.06	1.12	3.70	0.22	0.02	0.02	0.00	0.69	0.00	0.02	0.00	2.63	3.47 12.95
1971	0.67	0.52	0.54	0.74	1.30	0.04	0.00	0.00	0.00	0.00	0.00	0.16	4.47 8.44
1972	0.00	0.11	0.01	0.07	0.13	0.49	0.00	0.11	0.17	0.84	0.00	2.14	1.64 5.71
1973		4.55	3.96	0.12	0.10	0.00	0.00	0.02	0.00	0.05	0.00	1.58	0.06 10.44



1974	5.57	0.06	2.70	0.46	0.00	0.00	0.04	0.00	0.00	0.68	0.14	2.10	11.75
1975	0.43	1.32	3.52	1.56	0.15	0.16	T		0.00	0.43	0.73	0.45	8.75
1976	0.00	5.38	0.75	1.48	0.35	0.11	0.01	0.00	3.81	0.84		0.45	13.18
1977	2.39	0.76	1.08	0.00	3.11	0.00	0.00	2.29	0.00	0.04			9.67
1978	6.78	6.24	6.66	1.76	0.02	0.00	0.00	0.42	0.62	0.23	2.01	2.26	27.00
1979	4.77	2.87	4.59	0.02	0.74	0.09	0.78	0.02	0.00	1.27	0.09	0.16	15.40
1980	7.73		3.89	1.20	0.46	0.05	0.00	0.00	0.00	0.06	0.00	M0.21	13.60
1981	1.41	2.01	M2.03	0.46	0.27	0.00	0.00	0.00	0.00	1.22	0.82	1.23	9.45
1982	4.29		4.55	1.18	0.59	0.05	0.00	0.27	2.41	0.22	3.18	1.37	18.11
1983	5.02	3.64	2.86	3.19	0.11	0.00	0.00	2.55	1.04	0.96	2.68	2.29	24.34
1984	0.12	0.31	0.24	0.25	0.01	0.03	0.59	0.06	0.42	0.14	1.33	5.13	8.63
1985	1.14	1.05	1.04	0.09	0.00	0.00	0.04	0.00	0.46	0.54	2.82	0.41	7.59
1986	0.80	2.45	3.05		0.00	0.00	0.14	0.00	0.46	0.62	0.97	2.20	10.69
1987	1.91	2.00	1.74	0.28	0.07	0.12	0.04	0.11	0.04	2.66	1.61	1.85	12.43
1988	1.61	0.81	0.69	3.37	0.09	0.04	0.00	0.02	0.06	M0.00	0.55	2.56	9.80
1989	1.06	2.69	0.94	0.10	0.30	0.00	0.00	0.00	0.66	0.28	0.23	0.00	6.26
1990	1.93	2.40	0.69	0.82	0.66	0.12	0.41	0.10	0.01	M0.06	0.26	0.04	7.50
1991	2.15	3.41	M7.56	0.04	0.03	T	0.16	0.00	0.04	0.48	0.14	1.37	15.38
1992	2.83	4.89	5.34	0.22	0.25	0.00	M0.48	0.00	0.00	0.90	0.00	4.77	19.68
1993	11.69	7.55	1.95	0.00	M0.04	1.09	0.00	0.00	M0.00	0.20	1.18	1.20	24.90
1994	0.79	3.87	3.32	0.98	0.51	0.00	0.03	T	0.00	0.30	0.44	1.00	11.24
1995	9.20	1.79	6.59	0.80	0.49	0.97	0.05	0.05	0.01	0.00	0.08	0.51	20.54
1996	1.39	4.47	1.36	0.38	0.00	0.00	0.10	0.02	0.01	0.91		1.75	10.39
1997	6.21	0.00	0.00	0.03	0.00	0.07	0.01	0.00	1.12	0.26	1.48	2.35	11.53
1998	2.82	12.10	2.51	1.19	2.70	0.03	0.00	0.56	1.15	0.25	0.61	0.33	24.25
1999	1.16	0.62	0.27	2.25	0.09	0.47	0.05	0.00	0.00	0.00	0.04	0.02	4.97
2000	0.86	3.64	2.14	1.05	0.06	0.00	0.00	0.03	0.05	0.64	0.07	0.07	8.61
2001	2.90	3.49	1.58	1.42	0.06	0.00	0.02	0.00	0.00	0.05	1.12	0.85	11.49
2002	0.27	0.04	0.78	0.44	0.01	0.00	0.00	0.00	0.02	0.00	1.56	2.37	5.49
2003	0.01	5.43	3.00	2.57	0.73	0.10	0.14	0.00	0.00	0.00	1.64	1.16	14.78
2004	0.39	4.29	0.80	0.96	0.03	0.00	0.00	0.05	0.09	6.16	1.06	2.80	16.63
2005	6.17	6.84	0.95	0.66	0.47	0.05		T	0.18	1.63	0.00	0.17	17.12
2006	1.05	2.19		3.02	0.12	0.00	0.05		0.00	0.08	0.08	0.61	7.20
2007	1.27	0.48	0.48	0.88	0.00	0.00	T	0.00	0.07	0.11	1.99	2.04	7.32

2008	3.37	2.12	0.11	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	1.92	3.40	11.98
2009	0.20	2.91	0.08	0.10	0.00	0.01	0.00	0.00	0.00	0.01	0.03	0.43	2.77	6.54
2010	7.48	2.69	0.70	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.69	1.18	12.60	26.69
2011	1.13	2.82	1.83	0.19	0.50	0.01	0.31	0.00	0.05	0.43	1.19	0.31	8.77	
2012	0.53	0.53	1.95	1.58	0.16	0.00	0.20	0.34	0.00	0.06	0.71	2.95	9.01	
2013	1.28	1.43	0.92	0.02	0.24	0.00	0.20	0.11	0.00	0.59	1.33	0.31	6.43	
2014	0.03	1.91	0.48	1.13	0.01	0.00	0.00	1.25	0.00	0.00	0.39	3.97	9.17	
2015	0.53	0.93	0.51	0.53	0.80	0.00	1.66	0.00	0.98	0.35	0.24	1.00	7.53	
2016	3.40	0.23	1.41	1.11	0.08	0.00	0.00	0.00	0.01	0.82	1.39	M3.89	12.34	
2017	7.02	2.61	0.10	0.01	0.27	0.00	0.00	0.19	0.01	0.01	0.05	0.00	10.27	
2018	3.40	0.40	2.06	0.00	0.37	0.00	0.11	0.00	0.00	0.87	1.10	1.43	9.74	
2019	3.17	5.66	2.24	0.07	1.44	M0.01								12.59

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2016-07-22



## **APPENDIX C**

### **SITE PHOTOGRAPHS**

## Appendix C – Site Photographs\*

### BNSF Railway Ono Lead Track Extension Project Jurisdictional Delineation – June 12, 2019



Photo 1. Feature 1 is primarily unvegetated, originating off site from a culvert directing sheet flows away from University Parkway/North State Street.



Photo 2. Feature 1 continues through two small areas of mule fat scrub before travelling through a culvert under the railroad tracks.



Photo 3. Area of disturbed mule fat scrub mapped within northern portion of survey area adjacent to Feature 1. (Photo taken January 24, 2019 during biological assessment.)



Photo 4. Double culvert on west side of railroad tracks through which Feature 1 travels before continuing southeast along Cajon Boulevard.

\* See corresponding Figure 7A-B for Photo Point Locations. See Jurisdictional Delineation Report Sections 3.6 and 3.7 for a discussion of jurisdictional status of each feature.





Photo 5. Feature 1 travelling southeast before becoming a concrete-lined ditch for approximately 133 linear feet under University Parkway/North State Street then returning to an earthen-lined channel, continuing off site, and then terminating.



Photo 6. Isolated mule fat (*Baccharis salicifolia*) (red arrow) within northern portion of survey area with no drainage patterns in surrounding area. (Photo taken January 24, 2019 during biological assessment.)



Photo 7. Isolated area of mule fat scrub within northern portion of survey area with no drainage patterns in surrounding area.



Photo 8. The concrete-lined Feature 2 commences from the road and a culvert under the railroad tracks (shown above) before combining into a single, concrete-lined channel.



Photo 9. The concrete-lined Feature 2 commences from the road (shown above) and a culvert under the railroad tracks before combining into a single, concrete-lined channel.



Photo 10. Storm drain inlet (red arrow) where some flows from Feature 2 travel after entering a riprap basin. Other flows continue south before travelling off site and entering another storm drain inlet.

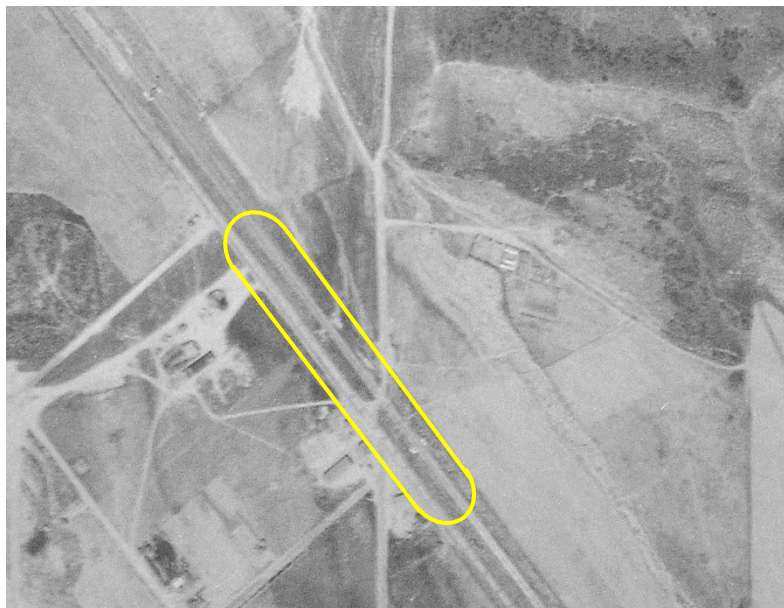


## **APPENDIX D**

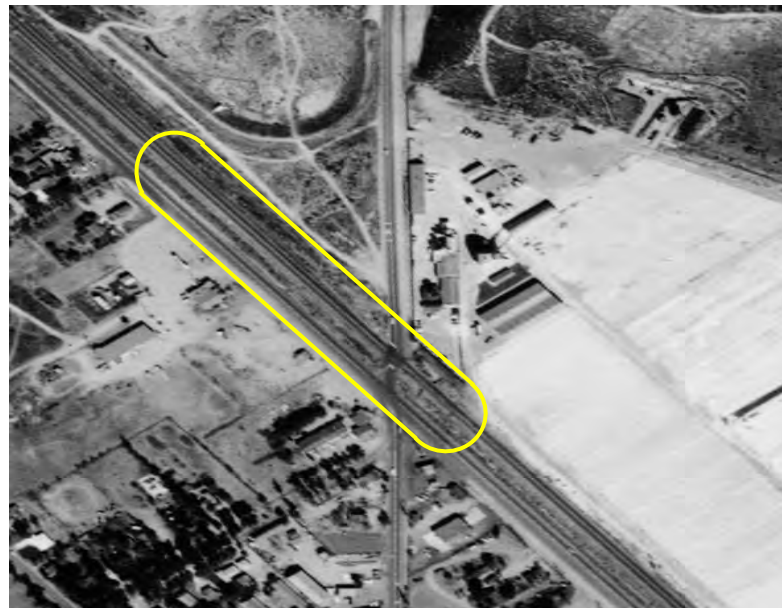
### **RECENT AND HISTORIC AERIALS ANALYSIS**

Appendix D – Recent and Historic Aerials Analysis  
Sources: Google Earth and University of California-Santa Barbara

Northern Area



March 1930 – Photo showing no natural features occurred in this area in 1930. Railroad was built prior to March 1930.



October 1959 – Photo showing no natural features occurred in this area in 1959.





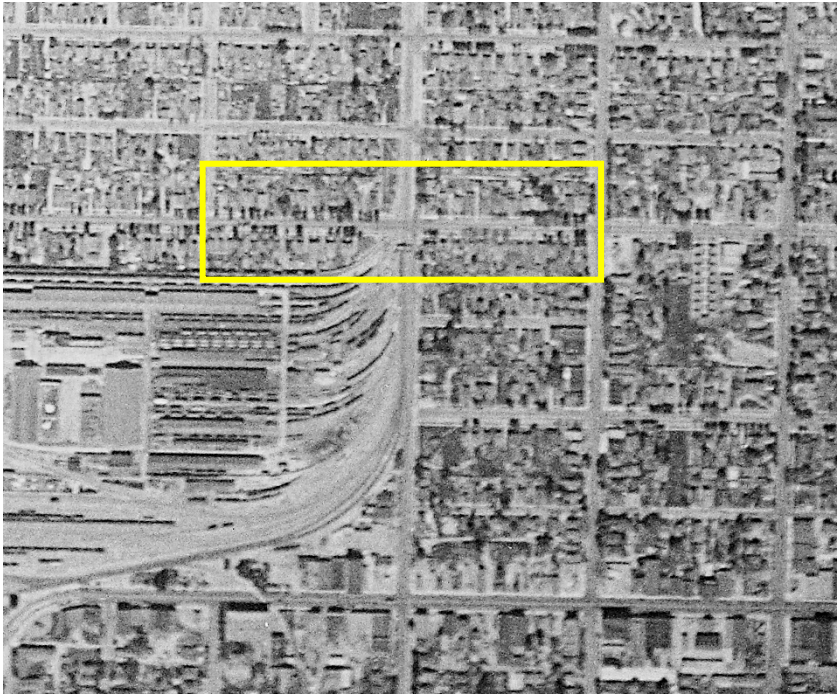
April 2007 – Prior to construction of University Parkway/North State Street, showing old road that has since been abandoned (yellow arrow).



June 2009 – After construction of University Parkway/North State Street. Old road has been abandoned (yellow arrow).



## Southern Area



1930 – Prior to construction/expansion of Interstate 215 (I-215). Homes exist within future road right-of-way.



1953 – After construction/expansion of West 5<sup>th</sup> Street. Homes demolished within road right-of-way.





April 2007 – Prior to construction of concrete ditch and placement of riprap basin.



June 2009 – After placement of riprap basin (yellow arrow) and construction of concrete ditch off-site (blue arrow), routing flows from buffer.



April 2014 – After construction of concrete ditch within buffer (northern blue arrow) to direct flows from road and railroad track under I-215 off-site through concrete ditch (southern blue arrow). Riprap basin remains (yellow arrow).



## **APPENDIX E**

### **JD REQUEST FORM**

## Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here

- I am requesting a JD on property located at: east of Route 66, south of Ogden St to north of Short St  
(Street Address)  
City/Township/Parish: San Bernardino County: San Bernardino State: CA  
Acreage of Parcel/Review Area for JD: 99.09  
Section: N/A Township: 1 S, 1 N Range: 4 W  
Latitude (decimal degrees): 34.126761 Longitude (decimal degrees): -117.307483  
(For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ☒ I currently own this property. ☐ I plan to purchase this property.  
☐ I am an agent/consultant acting on behalf of the requestor.  
☐ Other (please explain): \_\_\_\_\_
- Reason for request: (check as many as applicable)  
☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.  
☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.  
☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.  
☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.  
☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.  
☐ A Corps JD is required in order to obtain my local/state authorization.  
☒ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.  
☐ I believe that the site may be comprised entirely of dry land.  
☐ Other: \_\_\_\_\_
- Type of determination being requested:  
☒ I am requesting an approved JD.  
☐ I am requesting a preliminary JD.  
☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.  
☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

\*Signature: David M. Miller Date: 12/19/2019

- Typed or printed name: David M. Miller  
Company name: Burlington Northern Santa Fe (BNSF)  
Address: 3770 E. 26th Street  
Los Angeles, California 90058  
Daytime phone no.: 760-964-8979  
Email address: David.Miller2@bnsf.com

\*Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.



## **APPENDIX F**

### **GIS DATA**