Appendix H. Biological Resources Study

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Riverside-Downtown
STATION IMPROVEMENTS

Riverside-Downtown Station Improvements Project

Biological Resources Study

November 2020

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Acronyms and Abbreviations

AMM	avoidance and minimization measure
BMP	best management practices
BNSF	Railway Burlington Northern Railroad and the Atchison, Topeka, and Santa Fe Railway
BSA	biological study area
BLM	Bureau of Land Management
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGP	Construction General Permit
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California rare plant rank
CWA	Clean Water Act
DOI	Department of the Interior
EFH	Essential Fish Habitat
EO	Executive Order
FESA	Federal Endangered Species Act
FGC	Fish and Game Code
FR	Federal Register
HCP	Habitat Conservation Plan
I-	Interstate
ITP	Incidental Take Permit
LEDPA	least environmentally damaging practicable alternative
lf	linear feet
MBTA	Migratory Bird Treaty Act
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System

OS	open space
Project	RCTC Riverside-Downtown Station Improvement Project
RCTC	Riverside County Transportation Commission
RWQCB	Regional Water Quality Control Board
ROW	right of way
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
U.S. EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WEAT	worker environmental awareness training
WOTS	Water of the State
WOTUS	Water of the United States
WRCMSHCP	Western Riverside County Multiple Species Habitat Conservation Plan

1.0 Introduction

The Riverside County Transportation Commission (RCTC) and Metrolink propose to improve the Riverside-Downtown Station located at Milepost 9.9 to Milepost 10.2 on the Burlington Northern Railroad and the Atchison, Topeka, and Santa Fe Railway (BNSF Railway or BNSF), San Bernardino Subdivision, located just east of State Route-(SR) 91 and a short distance from SR-60 in the City and County of Riverside, California.

The proposed Riverside-Downtown Station Improvements Project (Project) include construction of an additional passenger loading platform, the extension of the existing pedestrian overcrossing and additional elevator and associated tracks, which would allow two trains to service the station off the BNSF mainline. The proposed track would be required to connect and integrate into the existing station layover tracks on the east side to improve train meet times without impacting BNSF operations. The Project would also provide additional parking and improved vehicular traffic circulation on the east side of the station (see Figure 1-1, Regional and Project Location Map).

1.1 Project Objectives

The purpose of the proposed project is to expand capacity and improve operations, efficiency, connectivity, and the passenger experience at the Riverside-Downtown Station. The following objectives support the purpose of the Project:

- Expand platform capacity to meet passenger train storage needs.
- Allow for train meets off the BNSF mainline and minimize impacts to BNSF operations.
- Improve train connectivity and passenger accessibility, while minimizing impacts on improvement projects near the station that are already designed or in construction.
- Facilitate more efficient passenger flow and reduce dwell times.
- Enhance safety and access for station users.
- Accommodate projected future demand.

Figure 1-1. Regional and Project Location Map

Source: HNTB 2020

2.0 Alternatives Considered

2.1 No Project Alternative

Under the No Project Alternative, implementation of improvements at the Riverside-Downtown Station would not be constructed and the current configuration of the Riverside-Downtown Station would remain the same. Although there would be no project-related impacts to environmental resources, the No Project Alternative would not meet the Project objectives or improve operations to accommodate the 91/Perris Valley Line and the Inland Empire Orange County Lines. Train capacity and storage would be limited to the existing platforms. The No Project Alternative does provide insight on future conditions with no improvements and serves as a baseline for comparison with the Build Alternative.

2.2 Build Alternative

RCTC and Metrolink propose improvements to the following elements of the station: 1) Platform and Tracks; 2) Pedestrian Access; and 3) Parking, Circulation, and Streetscape. The proposed improvements include building an additional passenger loading platform and tracks on the east side of the existing station to improve Metrolink service and extending the existing pedestrian overpass to access the new proposed platform (see Figure 2-1, Build Alternative).

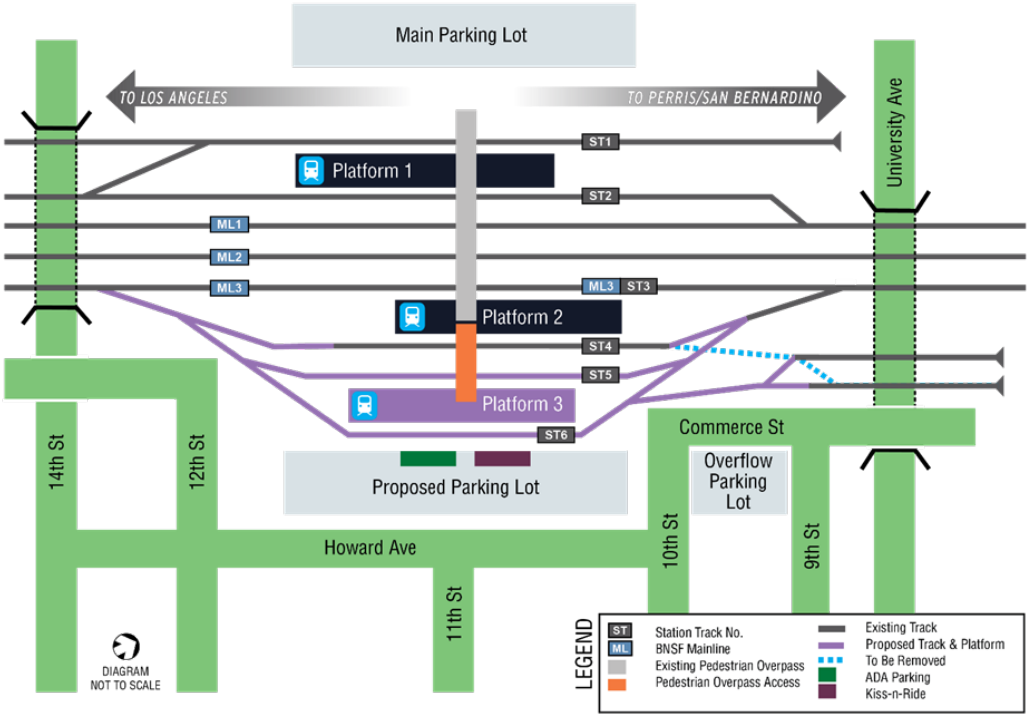

Figure 2-1. Build Alternative

Source: HNTB 2020

The proposed track would connect into the existing station layover tracks on the north end of the station, provide additional parking, and improve traffic flow on the east side of the station. A summary of the proposed Build Alternative (Project) improvements is presented in Table 2-1.

Table 2-1. Summary of Proposed Build Alternative Improvements

Element	Description
Station Platform and Track Improvements	• Add new center platform (Platform 3) • Add new station tracks (Tracks 5 and 6) • Modify railroad signal system
Pedestrian Access Improvements	• Extend pedestrian access to new Platform 3 • Provide emergency egress at three locations
Parking, Circulation and Streetscape Improvements	• Relocate ADA parking • Modify the bus drop-off area • Add sidewalks and trees • Add up to 560 additional parking spaces

ADA = Americans with Disabilities Act

The proposed improvements would enhance Metrolink train connections without affecting BNSF services. The improvements would be designed in accordance with the most recent applicable codes and the standards and guidelines issued by the Southern California Regional Rail Authority, BNSF, ADA, American Railway Engineering and Maintenance-of-Way Association, Federal Rail Administration, and California Public Utilities Commission.

2.2.1 Common Features of Build Alternative

Station Platform and Track Improvements

The Build Alternative includes the following station platform and track improvements as part of the proposed project (see Figure 2-1, Build Alternative):

- Add a new center platform (Platform 3) that is approximately 680 feet long and 30 feet wide with direct access from the new parking area to the east and access from the west using the at-grade crossings from Platform 2.
- Add new station tracks (Tracks 5 and 6) and other track improvements.
- Modify the railroad signal system.

Platform 3 would be located between station Tracks 5 and 6. Platform 3 would be able to service seven 85-foot passenger cars. The centerline to centerline spacing of the parallel tracks at the platform would be approximately 40 feet. Demolition of existing structures and other ancillary improvements would be required to facilitate construction of the station platform and track improvements.

Pedestrian Access Improvements

The Build Alternative includes the following pedestrian access improvements as part of the proposed project:

- Extend the existing pedestrian overpass access (see Figure 2-1, Build Alternative).
- Add pedestrian at-grade access from the proposed surface parking lot on the east side of proposed station improvements to Platforms 2 and 3 through an extension of the existing pedestrian at-grade crossing on the north end of the platforms and a new pedestrian at-

grade rail crossing on the south end of the platforms. The pedestrian at-grade crossings would include safety enhancements such as proper channelization and automated gates and flashers.

- Provide emergency egress at the following three locations from Platform 3:
  - Pedestrian at-grade crossing (existing at-grade crossing to be extended) on the northern end of Platform 3
  - Pedestrian access to Platform 3
  - Pedestrian at-grade crossing (new) on the southern end of Platform 3

Parking, Circulation, and Streetscape

The Build Alternative includes the following parking, circulation, and streetscape improvements as part of the proposed project:

- Relocate ADA parking.
- Modify the bus drop-off area.
- Add sidewalks and trees.
- Add up to 560 additional parking spaces (proposed surface parking lot) with access to the east side of the station via at-grade pedestrian crossings.

2.2.2 Design Options

As part of the Build Alternative, there is a design option related to a longer extension of the pedestrian overpass access from the new proposed platform to the new surface parking lot. Another design option is associated with the new surface parking lot and combining this new parking lot with the existing overflow parking lot on the east side of the station. This parking option includes traffic circulation improvements along Howard Avenue, 9th Street, 10th Street, and Commerce Street. A summary of the proposed design options is presented in Table 2-2.

Table 2-2. Summary of Proposed Build Alternative with Design Options

Build + Design Option	Description
Pedestrian Overpass Access Improvements	
Pedestrian Overpass Access Design Option 1	Extend pedestrian overpass access to the new Platform 3 and to the new surface parking lot
Parking, Circulation and Streetscape Improvements	
Parking Design Option 1A	New surface parking lot east of the station. Requires acquisition and demolition of existing structures and other ancillary structures and residential parcels on the corner of 12th Street and Howard Avenue to facilitate construction of the proposed improvements
Parking Design Option 1B	Same as Parking Design Option 1A but avoids relocation impacts to residential parcels on the corner of 12th Street and Howard Avenue
Parking Design Option 2A	New surface parking lot east of the station combined with existing overflow parking lot with the extension of Howard Avenue through to 9th Street

Build + Design Option	Description
	Requires acquisition and demolition of existing structures and other ancillary structures and residential parcels on the corner of 12th Street and Howard and requires acquisition of additional parcels directly east of the existing overflow parking lot
Parking Design Option 2B	Same as Parking Design Option 2A but avoids relocation impacts to residential parcels on the corner of 12th Street and Howard Avenue
Parking Design Option 3A	Same as Parking Design Options 1A and 2A but avoids impacts to additional parcels east of the existing overflow parking lot by routing Howard Avenue around the parcels
Parking Design Option 3B	Same as Parking Design Options 1B and 2B but avoids relocation impacts to additional parcels east of the existing overflow parking lot

Pedestrian Overpass Access Improvements

Access from the existing station area would be provided by the proposed extension of the pedestrian overpass (see Figure 2-2, Build Alternative with Pedestrian Overpass Access Design Option 1). The Build Alternative with Pedestrian Overpass Access Design Option 1 includes a longer extension of the pedestrian overpass to Platform 3 and new surface parking lot (two spans, two towers/elevators).

The new pedestrian overpass elevator tower would be located 14 feet clear of both Tracks 5 and 6 on Platform 3. Access from the proposed surface parking lot would be provided by two 10-foot wide, at-grade pedestrian crossings at the north and south end of Platform 3.

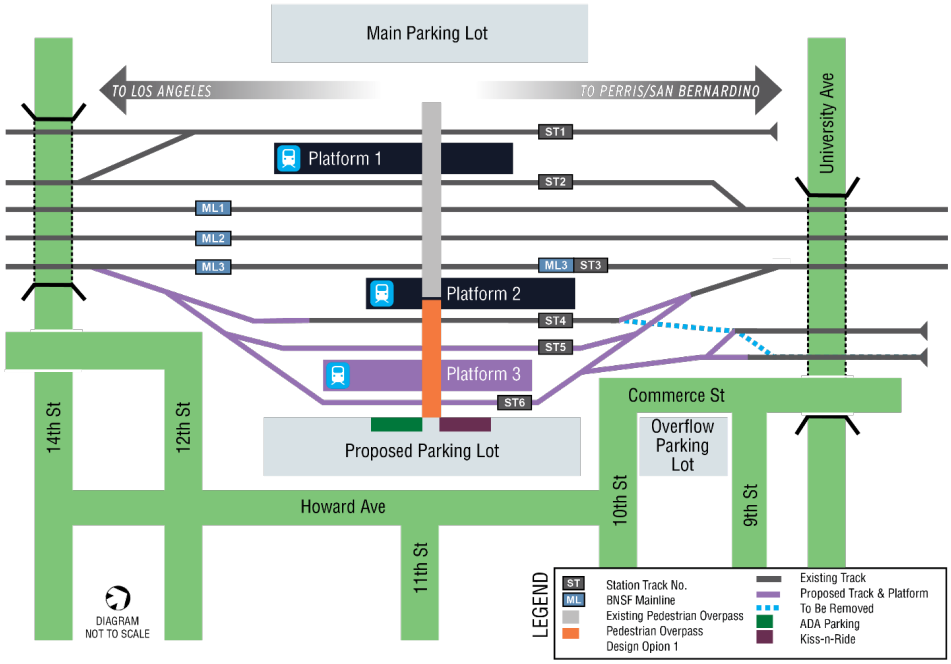

Figure 2-2. Build Alternative with Pedestrian Overpass Access Design Option 1

Source: HNTB 2020

Parking, Circulation and Streetscape Improvements

All parking design options would require the acquisition of parcels directly east of the station and demolition of existing structures and other ancillary structures to facilitate construction of the proposed Build Alternative improvements:

- Parking Design Option 1A would require the acquisition of residential parcels on the corner of 12th Street and Howard Avenue. Parking Option 1B would avoid the residential properties.
- Parking Design Options 2A and 2B would have similar right of way (ROW) impacts as Options 1A and 1B but would require acquisition of additional parcels directly east of the existing overflow parking lot.
- Parking Design Options 3A and 3B would have similar ROW impacts as Options 2A and 2B but would avoid parcel acquisitions directly east of the overflow parking lot.
- Parking Design Options 1A and 1B would add a new surface parking lot and maintain separation from the existing overflow parking lot on the eastside of the station (see Figure 2-3, Build Alternative with Parking Design Option 1A and Figure 2-4, Build Alternative with Parking Design Option 1B).

Parking Design Option 1A – Proposes new surface parking lot and maintain separation from existing overflow parking lot on the east side of the station. Acquisition and demolition of residential parcels on the corner of 12th Street and Howard Avenue would be required (see Figure 2-3, Build Alternative with Parking Design Option 1A).

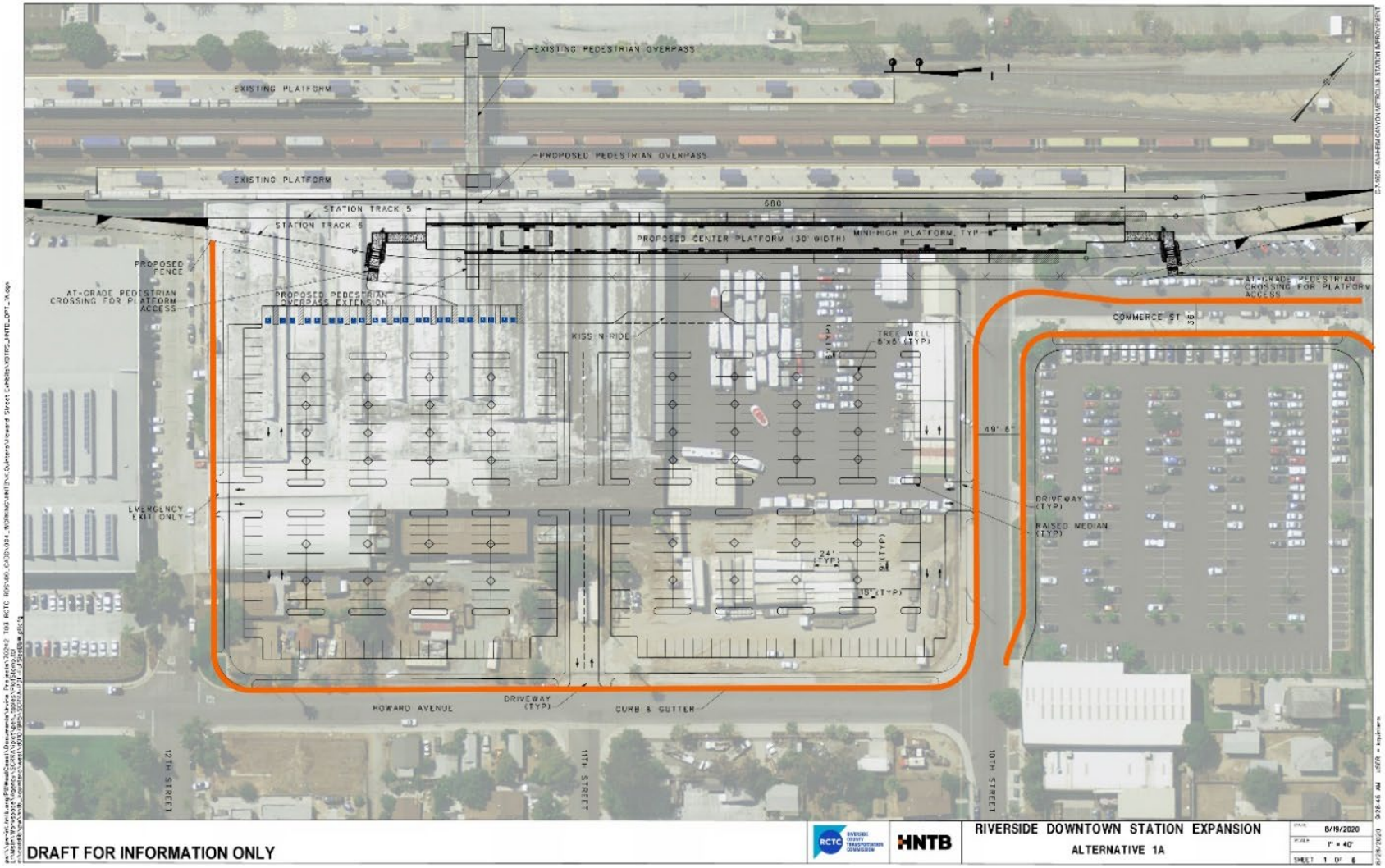

Figure 2-3. Build Alternative with Parking Design Option 1A
Source: HNTB 2020

Parking Design Option 1B – Proposes adding surface parking lot and maintain separation from existing overflow parking lot on the east side of the station and avoid impacts to residential parcels at the corner of 12th Street and Howard Avenue (see Figure 2-4, Build Alternative with Parking Design Option 1B).

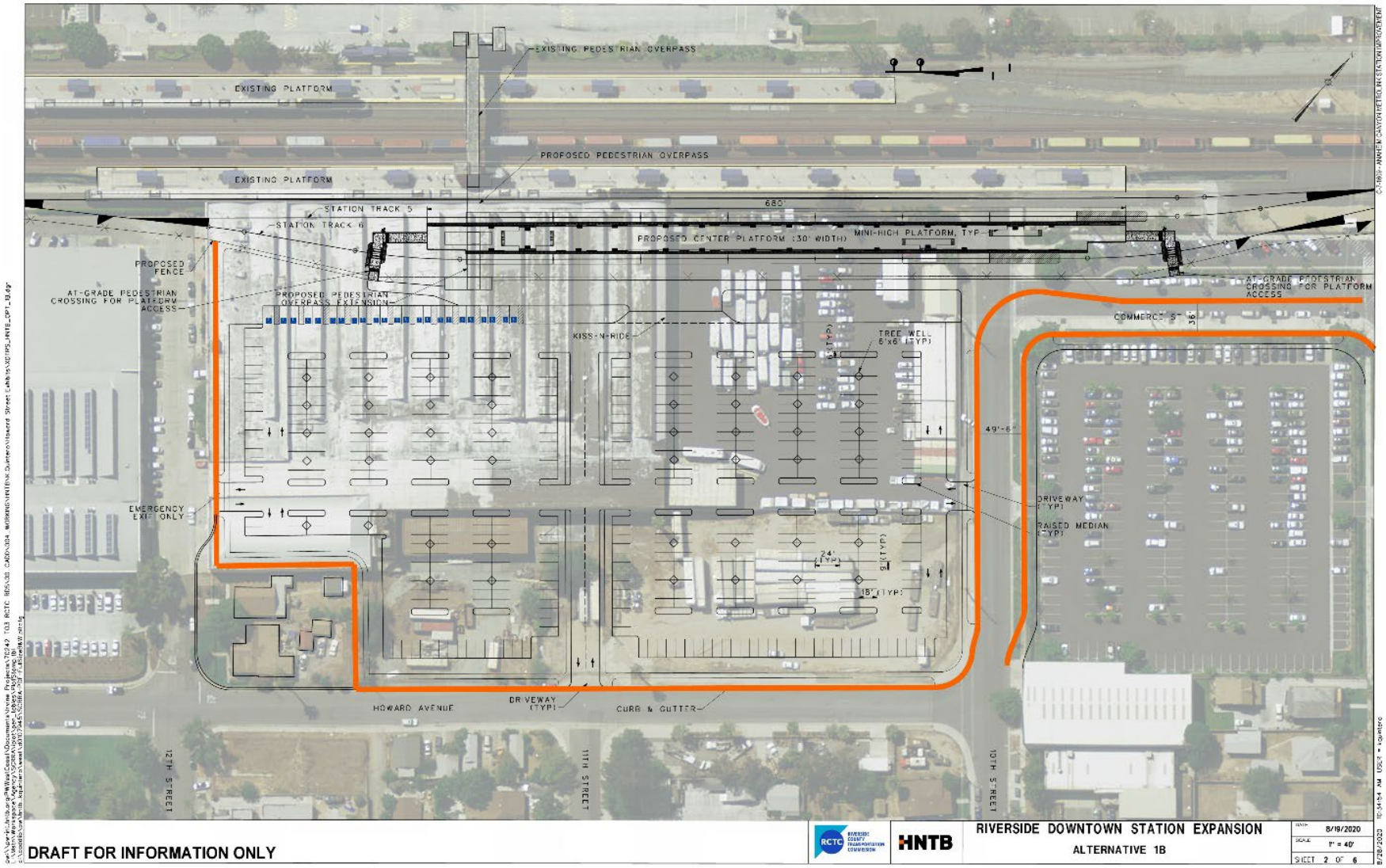

Figure 2-4. Build Alternative with Parking Design Option 1B
Source: HNTB 2020

Parking Design Option 2A – Proposes a new surface parking lot directly east of the station combined with the existing overflow parking lot. This option combines the proposed surface parking lot with existing overflow parking lot on the east side of the station which would require acquisition and demolition of residential parcels on the corner of 12th Street and Howard Avenue. This option would also include extending Howard Avenue through to 9th Street and would require additional acquisition of parcels directly east of the existing overflow parking lot as well as partial street vacations for 10th Street and Commerce Street (see Figure 2-5, Build Alternative with Parking Design Option 2A).

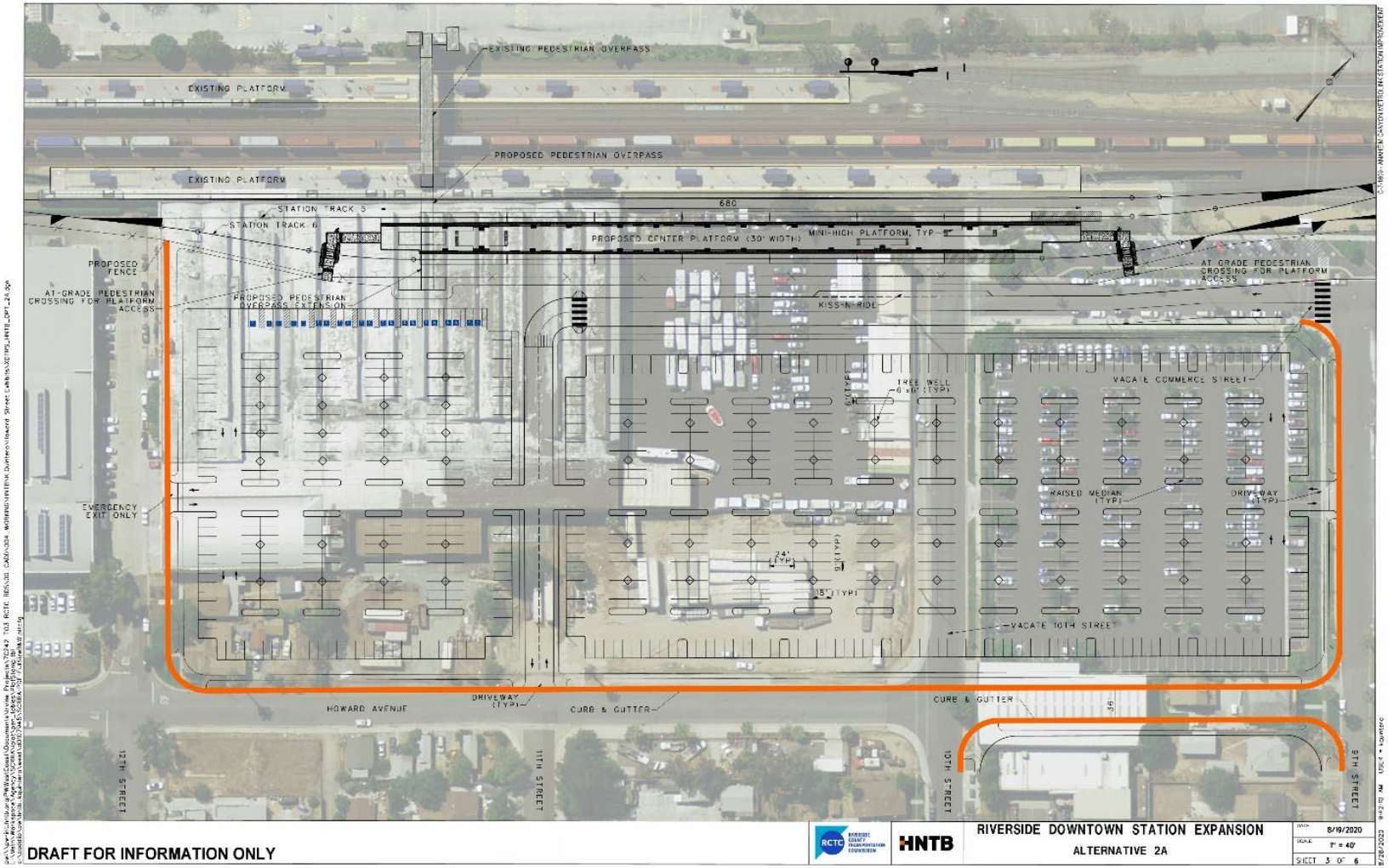

Figure 2-5. Build Alternative with Parking Design Option 2A
Source: HNTB 2020

Parking Design Option 2B – Proposes a new surface parking lot directly east of the station combined with the existing overflow parking lot. This option combines the proposed surface parking lot with the existing overflow parking lot on the east side of the station and avoid impacts to residential parcels at the corner of 12th Street and Howard Avenue. This option would also include extending Howard Avenue through to 9th Street and would require additional acquisition of parcels directly east of the existing overflow parking lot as well as partial street vacations for 10th Street and Commerce Street (see Figure 2-6, Build Alternative with Parking Design Option 2B).

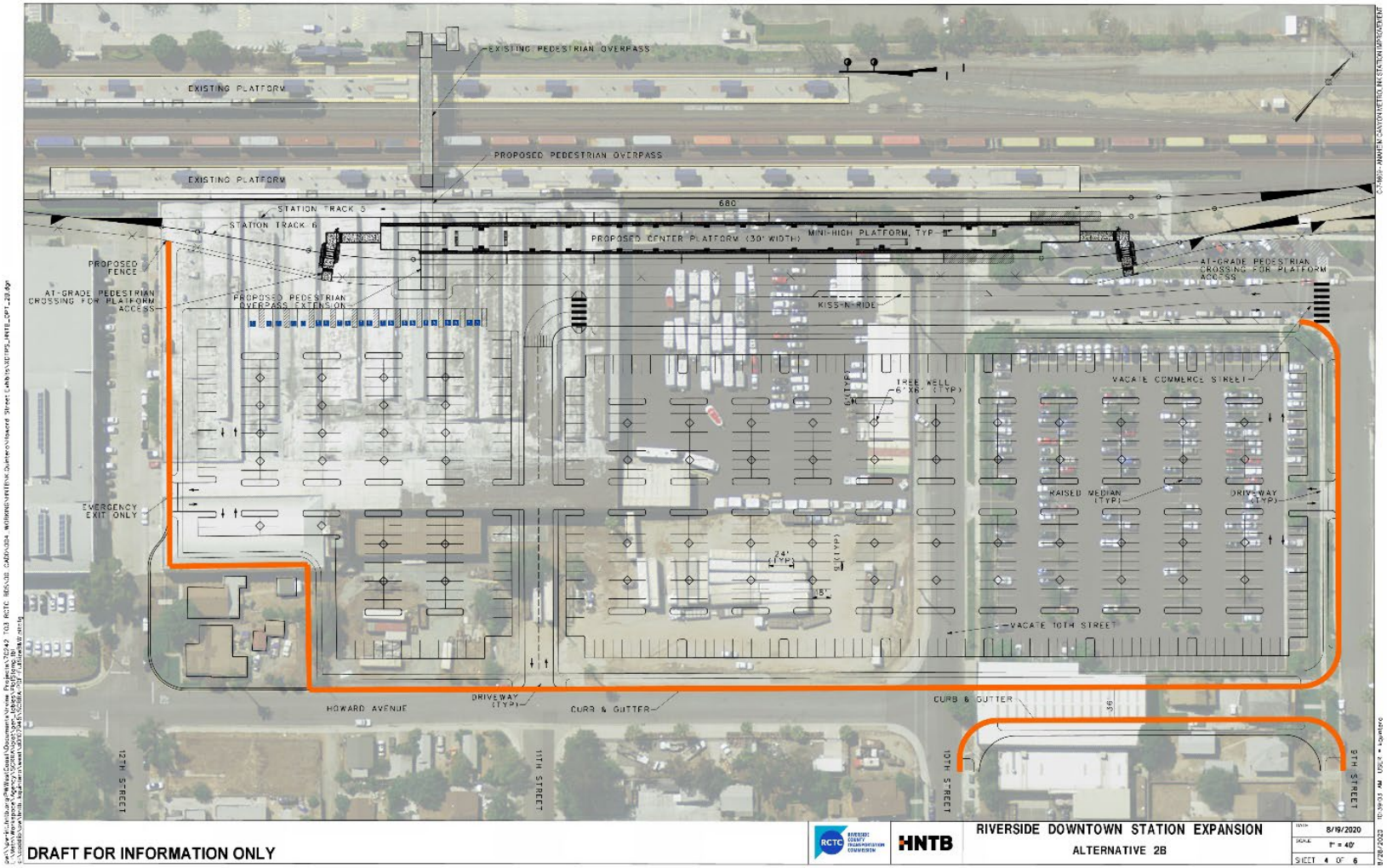

Figure 2-6. Build Alternative with Parking Design Option 2B
Source: HNTB 2020

Parking Design Option 3A – Proposes a new surface parking lot directly east of the station combined with the existing overflow parking lot and extension of Howard Street through to 9th Street. This option combines the proposed surface parking lot with existing overflow parking lot on the east side of the station, which would require demolition of residential parcels on the corner of 12th Street and Howard Avenue. In addition, this option would also include extending Howard Avenue through to 9th Street and partial street vacations for 10th Street and Commerce Street while avoiding additional acquisition of parcels directly east of the existing overflow parking lot (see Figure 2-7, Build Alternative with Parking Design Option 3A).

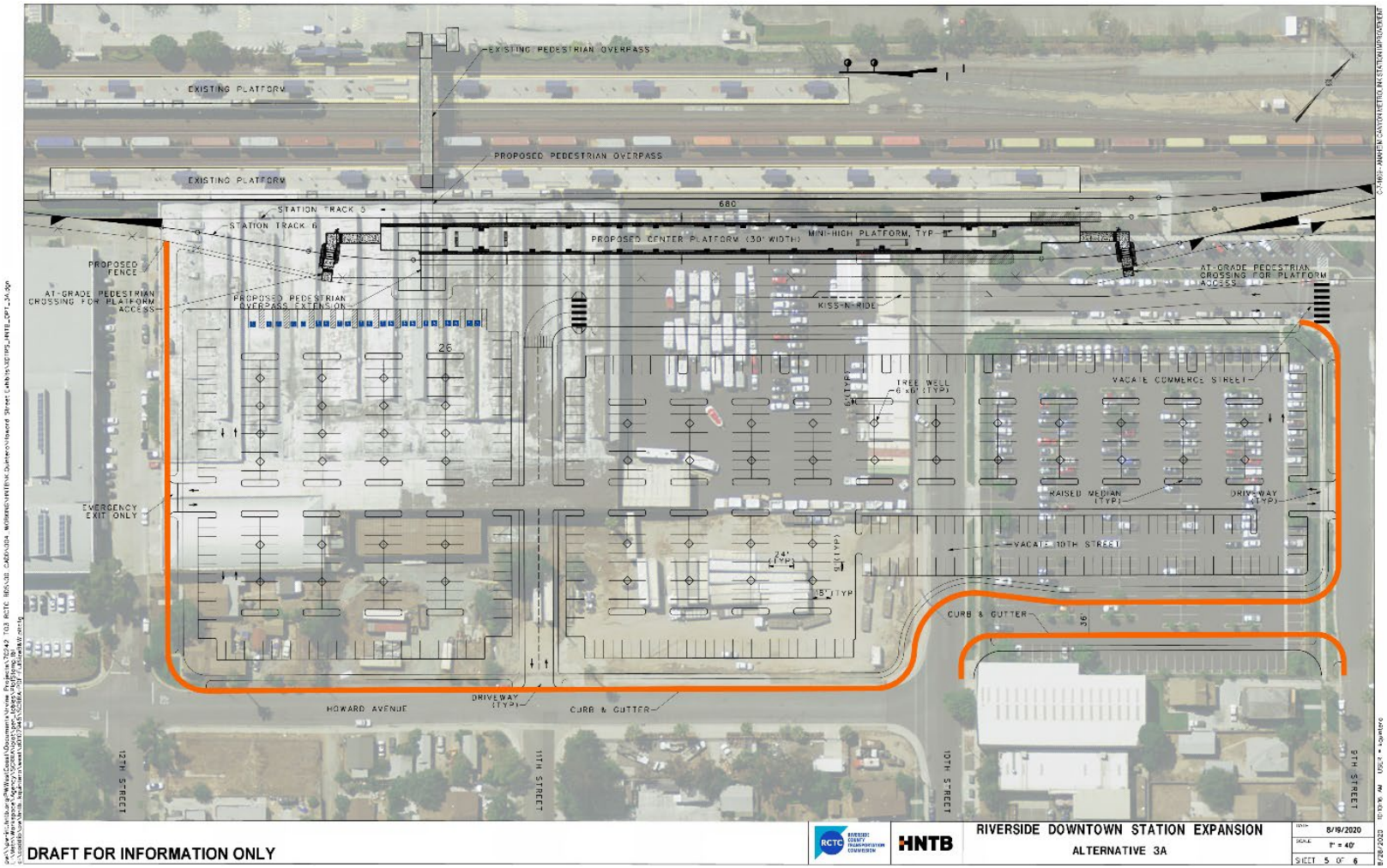

Figure 2-7. Build Alternative with Parking Design Option 3A
Source: HNTB 2020

Parking Design Option 3B - Proposes a new surface parking lot directly east of the station combined with the existing overflow parking lot and extension of Howard Street through to 9th Street, which would avoid impacts to residential parcels at the corner of 12th Street and Howard Avenue. This option would also include extending Howard Avenue through to 9th Street as well as partial street vacations for 10th Street and Commerce Street while avoiding additional acquisition of parcels directly east of the existing overflow parking lot (see Figure 2-8, Build Alternative with Parking Design Option 3B).

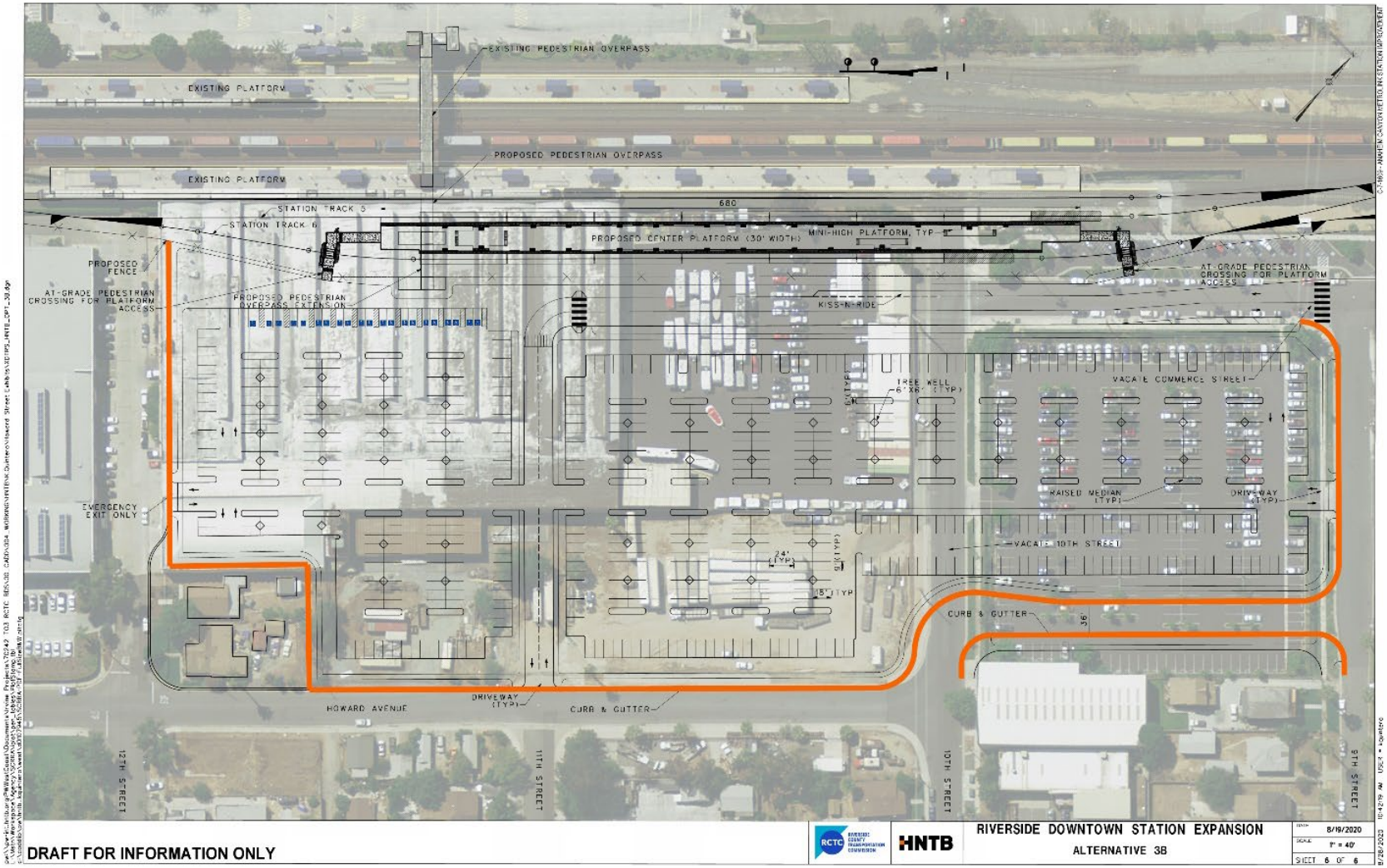

Figure 2-8. Build Alternative with Parking Design Option 3B
Source: HNTB 2020

2.2.3 Construction

Project construction activities will occur for an estimated 24 months. Construction activities would include the following:

- Importing and exporting fill material
- Clearing and grubbing trees, shrubs, stumps, and rubbish
- Removing pavement and concrete
- Excavating, grading, paving, and demolishing existing structures

Other ground-disturbing activities prior to commencement of construction may include subsurface investigations, excavation and removal of contaminated soil, and utility relocations.

Temporary construction easements would be required to accommodate the construction of project features. Construction staging areas would be located within the existing Riverside-Downtown Station and/or adjacent properties subject to acquisition.

3.0 Regulatory Setting

3.1 Regulatory Requirements: Federal

3.1.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 United States Code (U.S.C.) § 4321, provides an overall framework for the environmental evaluation of federal actions. NEPA declares a continuing federal policy "to use all practicable means and measures to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations." NEPA requires environmental statements for "major Federal actions significantly affecting the quality of the human environment." Implementing regulations by the Council on Environmental Quality (Title 40 *Code of Federal Regulations* [CFR] Parts 1500 through 1508) requires federal agencies to identify and assess reasonable alternatives to proposed actions that will restore and enhance the quality of the human environment and avoid or minimize adverse environmental impacts. Federal agencies must emphasize significant environmental issues in project planning and integrate impact studies required by other environmental laws and Executive Orders (EO) into the NEPA process.

3.1.2 Federal Endangered Species Act

Administered by the United States Fish and Wildlife Service (USFWS) and National Oceanographic and Atmospheric Administration National Marine Fisheries Service (NMFS), the Federal Endangered Species Act (FESA), 16 U.S.C. § 1531, provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Pursuant to FESA (16 U.S.C. 1531 et seq.), USFWS and NMFS have regulatory authority over species listed as endangered or threatened, as well as habitat of such species that has been designated as critical (i.e., critical habitat). Under FESA, authorization is required to "take" a listed species or adversely modify critical habitat. Take is defined under FESA Section 3 as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Under federal regulation (50 CFR 17.3, 222.102); "harm" is further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. For projects where take of a listed species may occur, the project proponent may seek to obtain an incidental take permit (ITP) under FESA Section 10(a). Section 10(a) allows issuance of permits for incidental take of endangered or threatened species. The term "incidental" applies if the taking of a listed species is incidental to and not the purpose of an otherwise lawful activity.

3.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), 16 U.S.C. §§ 703 through 712 domestically implements a series of international treaties with Canada, Mexico, and Japan that provide for migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. The act provides that it is "unlawful at any time, by any means or in any manner, to

pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, […] any migratory bird, or any part, nest, or egg of any such bird" (16 U.S.C. 703(a)). Species protected under the MBTA are listed in 50 CFR 10.13. On April 16, 2020, USFWS published an amended list of the non-native bird species that have been introduced by humans into the United States (U.S.) or U.S. territories and to which the MBTA does not apply (85 Federal Register [FR] 21262). Most native birds in Riverside County are protected under the MBTA. USFWS issues permits under the MBTA to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, educational, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal; USFWS does not issue permits for "incidental take" of migratory birds that results from otherwise lawful activities such as infrastructure, transportation projects, facility structures, or other activities.

In December 2017, the Acting Solicitor of the Department of the Interior (DOI) released a Solicitor's Opinion, and a subsequent April 2018 guidance memorandum from the Principal Deputy Director of the USFWS, that the USFWS would no longer assert jurisdiction over incidental take. A February 2020 proposed rule from the USFWS proposed to codify limiting take to intentional take and not incidental take. If passed, only intentional take, where the intent of the activity is to kill birds or their nests/eggs, would be prohibited under the MBTA. Any take of birds, incidental to and not the purpose of the lawful activity (such as constructing or operating infrastructure projects), would be legal. This is contrary to the interpretation held by both the DOI and USFWS since the 1970s. In September 2018, eight states brought a suit against the DOI, the Fish and Wildlife Service, and the Acting Solicitor over the opinion. The suit noted that the opinion is arbitrary and capricious violation of the Administrative Procedures Act of 1946 and contrary to law, based on the text, history, and purpose of the MBTA. There are currently three lawsuits pending that challenge the new memorandum and its consistency with the requirements of the MBTA (CDFW and Becerra, 2018; State Energy and Environmental Impact Center, 2020). Opinion M-37050 was struck down by the Southern District of New York on August 11, 2020 (Natural Resources Defense Council, Inc. v. U.S. Department of the Interior). The USFWS issued a proposed rule to the same effect, which is currently undergoing NEPA review.

3.1.4 Clean Water Act

The principal law that serves to protect the nation's waters is the 1948 Federal Water Pollution Control Act. This legislation, more commonly referred to as the Clean Water Act (CWA), 33 U.S.C. §1251, underwent significant revision when Congress, in response to the public's growing concern of widespread water pollution, passed the Federal Water Pollution Control Act Amendments of 1972. The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. (WOTUS) for the conservation of the nation's potable water sources. Under the current regulatory definition, WOTUS include navigable waters, territorial seas, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries (33 CFR 328.3(a)). Under the CWA, the U.S. Environmental Protection Agency (U.S. EPA) has implemented pollution control programs and has developed national water quality criteria recommendations for pollutants in surface waters. The following are important CWA sections:

Sections 303 and 304

Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.

Section 401

Section 401 requires an applicant for a federal license or permit to conduct any activity that may

result in a discharge to WOTUS to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below). Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a WOTUS must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the U.S. Army Corps of Engineers (USACE). The 401 permit certifications are obtained from the appropriate Regional Water Quality Control Board (RWQCB), depending on the project location, and are required before USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, and monitoring and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Section 402: National Pollutant Discharge Elimination System Permit Program

Section 402 of the CWA makes it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit is obtained. Point sources are discrete conveyances such as pipes or human-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an National Pollutant Discharge Elimination System (NPDES) permit; however, industrial, municipal, construction, and other facilities must obtain permits if their discharges go directly to surface waters.

The Construction General Permit (CGP) regulates stormwater discharges from construction sites that result in a disturbed soil area of 1 acre or greater and/or are smaller sites that are part of a larger common plan of development (SWRCB, 2012). By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the Construction General Permit. Construction activity that results in soil disturbances of less than 1 acre is subject to this CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop stormwater pollution prevention plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP.

The CGP separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the risk level determined. For example, a Risk Level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring, and before construction and after construction, aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP.

Section 404

Section 404 establishes a permit program for the discharge of dredge or fill material into WOTUS. This permit program is administered by USACE. USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide.

- Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect.
- Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, USACE decision to approve is based on compliance with U.S. EPA's Section 404 (b)(1) Guidelines (40 CFR Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with USACE and allow the discharge of dredged or fill material into the aquatic system (WOTUS) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on WOTUS. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to WOTUS. In addition, every permit from USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements (33 CFR 320.4).

3.1.5 Invasive Species

EO 13112 (64 FR 6183, February 8, 1999), amended by EO 13751 on December 8, 2016 (81 FR 88609) requires federal agencies to "prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health effects that invasive species cause." An invasive species is defined by the EO as "an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health." Alien species are defined, with respect to a particular ecosystem, as any species (including its seeds, eggs, spores, or other biological material capable of propagating that species) that is not native to that ecosystem.

3.2 Regulatory Requirements: State

3.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) establishes state policy to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures. CEQA applies to actions directly undertaken, financed, or permitted by state lead agencies. Regulations for implementation are found in the CEQA Guidelines published by the Resources Agency. These guidelines establish an overall process for the environmental evaluation of projects, which is similar to the process promulgated under NEPA. The guidelines make provisions for joint NEPA/CEQA documents.

3.2.2 California Endangered Species Act

The California Endangered Species Act (CESA), Fish and Game Code § 2050 et seq., provides a process by which plants and animals can be recognized as being endangered or threatened with extinction. Pursuant to the CESA, a permit from the California Department of Fish and Wildlife (CDFW) is required for projects that could result in the taking of a plant or animal species that is state listed as threatened or endangered (Fish and Game Code [FGC] § 2050 et seq.). Under CESA, "take" means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. The CESA definition of take does not include "harm" or "harass," as the FESA definition does. As a result, the threshold for take is higher under CESA than under FESA. Authorization for take of state-listed species may be obtained through an FGC § 2080.1 consistency determination (for applicants who have already obtained a federal ITP for the same species) or a Section 2081 ITP.

3.2.3 California Migratory Bird Protection Act

This act modifies Section 3514 of the FGC to specify that "It is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act (16 U.S.C. Sec. 703 et seq.) before January 1, 2017." This act protects migratory birds in California from incidental take, as January 1, 2017 was prior to the issuance of Solicitor's Opinion M-37050; *The Migratory Bird Treaty Act Does Not Prohibit Incidental Take* (December 22, 2017).

3.2.4 Protection of Migratory Birds

FGC § 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. defines "take" for purposes of all of these statutes as "to hunt, pursue, catch, capture, kill, or attempt to hunt, pursue, catch, capture, or kill." (FGC § 86) California courts have held that take includes incidental take and is not limited to hunting, fishing and other activities that are specifically intended to kill protected fish and wildlife. (See CDFW v. Anderson Cottonwood Irrigation Dist., 8 Cal.App.4th 1554, 1563-64 (1992) ("take" includes the killing of endangered species in the course of lawful activity; in that case, via unscreened diversions of water), citing Churchill v. Parnell, 170 Cal.App.3d 1094, 1098 (1985) ("take" includes the application of pesticides in water that kills fish).) In Center for Biological Diversity v. CDFW, 62 Cal.4th 204, 235-36 (2015), the California Supreme Court specifically stated that:

> "The broad definition of "take" in FGC section 86 ensures that CDFW can maintain legal control over actions interfering with threatened, endangered and fully protected animals even where those actions may not have been intended to kill or hurt the animal."

According to CDFW and Becerra (2018), unless the FGC or its implementing regulations provide otherwise, under California law it is unlawful to:

- Take a bird, mammal, fish, reptile, or amphibian (FGC § 2000)
- Take, possess, or needlessly destroy the nest or eggs of any bird (FGC § 3503)
- Take, possess, or destroy any bird of prey in the orders *Strigiformes* (owls) and *Falconiformes* (such as falcons, hawks and eagles) or the nests or eggs of such bird (FGC § 3503.5)
- Take or possess any of the 13 fully protected bird species listed in FGC section 3511
- Take any nongame bird (i.e., bird that is naturally occurring in California that is not a gamebird, migratory game bird, or fully protected bird) (FGC § 3800)
- Take or possess any migratory nongame bird as designated in the MBTA or any part of such bird, except as provided by rules or regulations adopted by the Secretary of the Interior under the MBTA (FGC § 3513)
- Take, import, export, possess, purchase, or sell any bird (or products of a bird), listed as an endangered or threatened species under the CESA unless the person or entity possesses an ITP or equivalent authorization from CDFW (FGC § 2050 et seq.)

Typical violations of these codes include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of § 3503.5 could also include failure of active nests resulting from disturbance of nesting pairs by nearby project construction. These code sections do not provide for the issuance of any type of ITP.

3.2.5 Protection of Bats

Bats and other nongame mammals are protected in California under FGC §§ 2000, 2002, 2014 and 4150 and California Code of Regulations § 251.1. FGS § 4150 states that all nongame

mammals or parts thereof may not be taken or possessed, except as otherwise provided in the code or in accordance with regulations adopted by the commission. Thus, destruction of an occupied, nonbreeding bat roost, resulting in the death of bats, or disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), is prohibited.

3.2.6 Fully Protected Species under the FGC

Protection of fully protected species is described in FGC §§ 3511, 4700, 5050, and 5515. These statutes prohibit take or possession of fully protected species. Incidental take of fully protected species may be authorized under an approved Natural Community Conservation Plan (NCCP).

3.2.7 Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state (WOTS). WOTS includes all surface waters (including isolated waters) and groundwater, which are not considered WOTUS. Additionally, it prohibits discharges of "waste" as defined, and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by WDRs and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, RWQCBs designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

On May 28, 2020, the SWRCB's State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to WOTS (Procedures) went into effect. The newly adopted rules provide a common, statewide definition of what constitutes a wetland. They also provide consistency in the way the SWRCB and nine RWQCBs regulate activities to protect wetlands and other waterways, such as rivers and streams, and bays and estuaries. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a Water of the State (WOTS); 3) wetland delineation procedures; and 4) procedures for the submittal, review and approval of applications for Water Quality Certifications and WDRs for dredge or fill activities. The rules are largely based on the scientific conclusions used for the existing USACE wetland definition and regulatory programs. One exception is that in arid portions of the state, the SWRCB's definition protects non-vegetated wetlands, such as desert playas, that otherwise would not be covered under federal jurisdiction. Furthermore, WOTS are, by definition, broader than "WOTUS" covered by federal regulation. The newly adopted rules do not change that and will ensure that WOTS will continue to be protected even if protections for federal waters are narrowed by administrative actions or the courts.

3.3 Regulatory Requirements: Local/Regional

3.3.1 Local Tree Ordinances

In Riverside County, native oak trees with diameters greater than 2 inches in diameter at breast height are protected. The Riverside County Planning Department provides project design and impact avoidance guidelines to address the treatment of oak woodlands and help reduce project impacts on native oak trees (County of Riverside, 1999).

The County of Riverside Tree Removal Ordinance No. 559 (as amended through 559.7 and as provided for in Ordinance No. 725) regulates the removal of trees (County of Riverside, 2000). This ordinance states that, “No person shall remove any living native tree on any parcel or property greater than one-half acre in size, located in an area above 5,000 feet in elevation and within the unincorporated area of the County of Riverside, without first obtaining a permit to do so, unless exempted by the provisions of Section 4 of this ordinance.”

The City of Riverside’s Urban Forestry Policy (2015) provides guidelines for the planting, pruning, preservation and removal of all trees in ROW. The Policy specifies guidelines for protecting trees on city property during construction projects. A tree removal permit is required for construction projects that remove trees.

3.3.2 City of Riverside General Plan

The City of Riverside's General Plan is a long-range policy-planning document that defines the framework by which the County’s physical and economic resources are to be managed over time (City of Riverside, 2012). The open space (OS) and conservation element is intended to provide guidance in developing and implementing activities that ensure the protection of Riverside’s open space areas, scenic resources, and hillsides. The following are relevant goals, objectives, and policies contained within the open space and conservation element:

- Objective OS-1: Preserve and expand open space areas and linkages throughout the city and sphere of influence to protect the natural and visual character of the community and to provide for appropriate active and passive recreational uses.
- Policy OS-1.1: Protect and preserve open space and natural habitat wherever possible.
- Objective OS-5: Protect biotic communities and critical habitats for endangered species throughout the general plan area.
- Policy OS-5.4: Protect native plant communities in the general plan area, including sage scrub, riparian areas, and vernal pools, consistent with the WRCMSHCP.
- Objective OS-6: Preserve and maintain wildlife movement corridors.
- Policy OS-6.1: Protect and enhance known wildlife migratory corridors and create new corridors as feasible.
- Policy OS-6.2: Support regional and local efforts to acquire, develop and maintain open space linkages.
- Policy OS-6.3: Preserve the integrity of the City of Riverside’s arroyos and riparian habitat areas through the preservation of native plants.

3.3.3 Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP) area includes the jurisdictional areas of the City of Riverside and the proposed Project. The WRCMSHCP contains policies on the preservation of natural communities and wildlife movement corridors within the project study area. The WRCMSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) and NCCP focusing on the conservation of species and their associated habitats in western Riverside County. It is a large, multijurisdictional habitat planning effort with the overall goal of maintaining biological and ecological diversity within a region undergoing rapid urban development. The WRCMSHCP will allow Riverside County and its cities to better control local land use decisions and maintain a strong economic climate in the region while addressing the requirements of CESA and FESA. The WRCMSHCP area encompasses approximately 1.26 million acres (1,966 square miles), and there are 146 covered species included in the WRCMSHCP. The WRCMSHCP was formally adopted by the governing county and cities in 2003 and 2004, and USFWS and CDFW granted take permits in 2004. The Western Riverside Regional Conservation Authority acquires, administers, operates, and maintains land and facilities for ecosystem conservation and habitat reserves for rare, threatened, and endangered species listed in the WRCMSHCP.

4.0 Study Methods

A desktop study was performed to satisfy the requirements of NEPA and CEQA, to document all special-status species that could potentially occur within the biological study area (BSA), and to identify all potential Project impacts on biological resources.

4.1 Project Footprint and Biological Study Area

The project footprint (shown in Figure 4-1), located within the Riverside East U.S. Geological Survey (USGS) 7.5-minute quadrangle, includes all the areas that will be directly impacted by the construction of the Project, either permanently (for example the areas with new tracks, platforms, and parking lots) or temporarily (areas used during construction, such as for staging). The BSA includes the project footprint and areas that may be indirectly affected by the Project. The BSA is the extent shown in Figure 4-1 and is approximately 500 feet surrounding the project footprint.

4.1.1 Special-Status Species and Sensitive Natural Communities

Databases and existing literature were searched to determine if any special-status species have the potential to occur within the BSA. Special-status species are those that are legally protected under the FESA, CESA, or the FGC and species that are considered sufficiently rare by the scientific community to qualify for such listing. Special-status species are defined as follows:

- Species that are listed or are candidates for listing as threatened or endangered under FESA (50 CFR 17.11 [listed animals]; 50 CFR 17.12 [listed plants]; and various notices in the FR)
- Species that are candidates for possible future listing as threatened or endangered under FESA (81 FR 87246 87272, December 2, 2016)
- Species that are listed or proposed for listing by the State of California as threatened or endangered under CESA (14 California Code of Regulations 670.5)
- Animals listed as California species of special concern (CDFW, 2020a)
- Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Commission, Section 1900 et seq.)
- Animals fully protected in California (California FGC Sections 3511 [birds], 4700 [mammals], and 5050 [amphibians and reptiles])
    - Plants and animals that meet the criteria for listing, even if not currently included on any list, as described in the CEQA Guidelines Section 15380(b), (c), and (d). Species that may meet this definition include the following:
    - Plants ranked as “rare, threatened, or endangered in California” (California Native Plant Society’s (CNPS) California rare plant rank [CRPR] 1B and 2B).

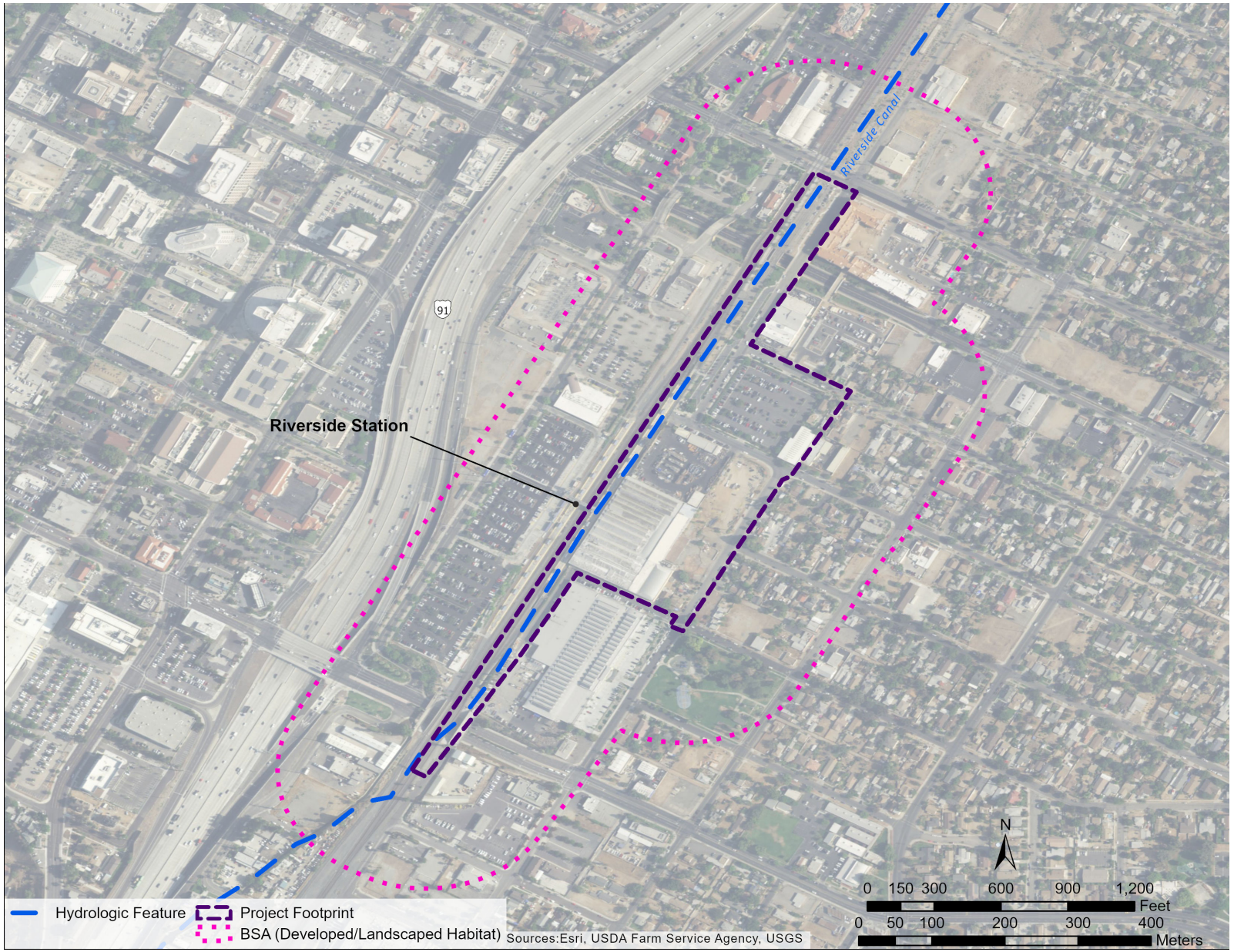

Figure 4-1. Project Footprint and BSA, City of Riverside

Source: HNTB 2020

- Plants and animals that may warrant consideration on the basis of local significance or recent biological information (State CEQA Guidelines 15380[d]), which may include plants rated CRPR 3 (plants about which more information is needed to determine their status) and CRPR 4 (plants of limited distribution). CRPR 3 and CRPR 4 plants are not tracked in the California Natural Diversity Database (CNDDB) but are recorded at the county level, and therefore are usually not included on lists generated from specific quadrangles.
- CRPR 4 plants that were previously ranked CRPR 1 or 2 were tracked at the quadrangle level in the past, and those records remain in the CNDDB. This is why some CRPR 3 and CRPR 4 plants appear in the CNDDB. Their inclusion in the database is therefore a historical artefact and not related to current rarity or whether they would warrant consideration under CEQA (Section 15125 [c] or 15380[d]).
- Some plants included on the Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2020b).
- Some animals included on the Special Animals List (CDFW, 2020a).

The CNPS, a non-governmental conservation organization, has developed CRPRs for plant species of concern in California in the CNPS Inventory of Rare and Endangered Plants. The CRPRs include lichens, vascular, and non-vascular plants, and are defined as follows:

- CRPR 1A: Plants considered extinct
- CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
- CRPR 2A: Plants considered extinct in California but more common elsewhere
- CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
- CRPR 3: Plants about which more information is needed - review list
- CRPR 4: Plants of limited distribution - watch list

The CRPRs are further described by the following threat code extensions:

.1 Seriously endangered in California

.2 Fairly endangered in California

.3 Not very endangered in California

Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants appearing as CRPR 1B or 2 generally meet CEQA's Section 15380 criteria, and adverse effects to these species may be considered significant. Impacts on plants that are listed by the CNPS as CRPR 3 or 4 are also considered during CEQA review, although because these species are typically not as rare as those of CRPR 1B or 2, impacts on them are less frequently considered significant.

Compliance with CEQA Guidelines Section 15065(a) requires consideration of natural communities of special concern, in addition to plant and wildlife species. Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance, since the state inception of the Natural Heritage Program in 1979. CDFW determines the level of rarity and imperilment of vegetation types and tracks sensitive communities in its Rarefind database (CNDDB, 2020). Global (G) rankings of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings are a reflection of the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program methodology as follows (Faber-Langendoen et al., 2012):

- G1/S1: Critically imperiled
- G2/S2: Imperiled

- G3/S3: Vulnerable
- G4/S4: Apparently secure
- G5/S4: Secure

In addition to tracking sensitive natural communities, CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer et al., 2009). If an alliance is marked G1-G3, all of the vegetation associations within it will also be of high priority (CDFW, 2020c). CDFW provides the Vegetation Classification and Mapping Program's currently accepted list of vegetation alliances and associations (CDFW, 2020c).

Impacts on CDFW sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under CEQA). Furthermore, aquatic, wetland and riparian habitats are also protected under applicable federal, state, or local regulations, and are generally subject to regulation, protection, or consideration by USACE, RWQCB, CDFW, and/or the USFWS.

4.1.2 Database Searches

The following databases were queried for special-status animal or plant species, and sensitive natural communities or vegetation alliances that may be affected by the Project:

- USFWS Species List was obtained on September 25, 2020 (Appendix A).
- NMFS Species List was obtained on September 25, 2020 for the Riverside East and West USGS 7.5-minute quadrangles (Appendix B).
- CNDDB records were obtained on September 25, 2020 for the nine USGS 7.5-minute quadrangles including and surrounding the Project: Fontana, San Bernardino South, Redlands, Riverside West, Riverside East, Sunnymead, Lake Mathews, Steele Peak, and Perris (Appendix C).
- CNPS list was obtained for the nine USGS quadrangles on September 25, 2020. This list was verified against the list of changes made to the inventory since May 2019 (Appendix D).
- Inaturalist was searched on February 21, 2020 for research-grade records of common and special-status species observed in the 9-square mile urbanized area around the Project, bounded approximately between the Santa Ana River, I-215, and the Victoria Club Golf Course (Inaturalist, 2020a).

Inaturalist was used to determine what species (common, invasive, or special-statues) may be found within the BSA (Inaturalist, 2020a). Only research-grade observations were considered, which requires the observation to be verifiable (has a date, georeferencing, photo or sound, and isn't a captive or cultivated organism) and the community agrees on a species-ID (identification) or lower, i.e. where two thirds of the identifiers agree on the taxon (Inaturalist, 2020b). Some of these observations have their geographic location obscured. Obscured observations have a random coordinate point assigned within an approximately 13.6- mile by 13.6-mile area that contains the true coordinates. Although these observations do not have accurate location information, they are still considered informative as they are species that may occur in nearby or adjacent habitats similar to the Project. These geographically obscured observations indicate some potential to occur within or near the City of Riverside.

This Biological Resources Study included a desktop survey using available online resources and did not include a site visit. As such, the findings of the desktop survey were not able to be confirmed to be consistent with existing site conditions. The accuracy of this study therefore depends on the content and accuracy of the literature, database sources, and aerial imagery to determine which biological resources occur or have the potential to occur in the BSA.

5.0 Environmental Setting Results

5.1 Physical Conditions

The Project is located in the City of Riverside, in the relatively flat, lowlands area (the Perris Plain) between the Santa Ana Mountains to the south and west, and the San Bernardino Mountains to the north and east. The San Bernardino Mountains are part of the transverse ranges that trend east to west. The Santa Ana Mountains are part of the Peninsular Mountain Ranges that trend north to south. The Perris Plain is punctuated by low hills and rocky outcrops (WRCRCA, 2003). The Project itself is relatively flat and is at 880 feet in elevation (USGS, 2020). Mount Rubidoux and the Santa Ana River Reach 3 are 1.3 and 1.8 miles to the west of the Project, respectively, and Sugarloaf Mountain, Box Springs Mountain, and Sycamore Canyon are to the east of the Project.

The Project is within the Santa Ana River watershed. Tequesquite Arroyo Creek is located approximately 0.7 mile to the south and runs underneath SR-91. Riverside Canal is located just west of the Project footprint. It is culverted underground to the north of 14th Street and is daylighted south of 14th Street, approximately 70 feet to the west of the footprint. Lake Evans is 1.25 miles to the northwest of the BSA.

Latitude, topography, and the influence of the nearby Pacific Ocean produce a Mediterranean climate in the City of Riverside, consisting of warm, dry summers and mild, wet winters. The relatively arid climate is in part the result of the rain shadow cast by the Santa Ana Mountains (WRCRCA, 2003). Average temperatures are between 54.5 degrees Fahrenheit (F) and 79.4 F, but temperatures range from 42.5 F to 92.9 F. Precipitation falls mostly from November through March, with up to 3 inches per month falling in the winter and no precipitation in the summer. Total annual precipitation averages 13.75 inches (NOAA, 2020).

Soils within the project footprint are Buren fine sandy loam with 2 to 8 percent slopes (eroded), Hanford coarse sandy loam (very deep, well drained) with 2 to 8 percent slopes, and Arlington fine sandy loam (deep) with 2 to 8 percent slopes (NRCS, 2020). However, the majority of the project footprint is covered with paving, concrete, and hardscape.

5.2 Biological Conditions

The BSA is located within an entirely urbanized area, which consist of existing development and landscaped areas. The majority of this area is covered with hardscape, with the exception of small urban parks and other landscaped areas, such as Lincoln Park, which is located at Howard Avenue and 12th Street. Plant species within the BSA typically consist of non-native and ornamental landscaping. Ruderal and weedy species are commonly found at the margins of hardscape areas, where they can exploit small patches of disturbed soil areas.

There are no natural communities within or adjacent to the project footprint. There are no waters or wetlands within the project footprint. The Riverside Canal runs along the western edge of the Project footprint. The canal is in an underground culvert for the majority of the length of the Project area, with a short daylighted segment in an engineered channel, parallel to the southernmost part of the footprint. There is no riparian vegetation associated with the canal, as it is a constructed watercourse.

Research grade Inaturalist observations are listed in Table 5-1 (Inaturalist, 2020a). These observations within urbanized City of Riverside indicate that there is the potential for these species to occur within the BSA. Other urban animal species that commonly occur in urban areas are bats, racoons (*Procyon lotor*), and a variety of native and non-native bird species such as house sparrow (*Passer domesticus*), starlings (*Sturnus vulgaris*), rock doves (*Columba livia*), and a variety of gull species (*Larus* spp.).

Table 5-1. Research-grade Inaturalist Observations in the Urbanized City of Riverside

Species Scientific Name	Species Common Name
Birds	
Aphelocoma californica	California scrub-jay
Accipiter cooperii	Cooper's hawk
Buteo jamaicensis	Red-tailed hawk
B. lineatus	Red-shouldered hawk
Calypte anna	Anna's hummingbird
C. costa	Costa's hummingbird
Corvus brachyrhynchos	American crow
C. corax	Common raven
Cyanocitta stelleri	Stellar's jay
Euphagus cyanocephalus	Brewer's blackbird
Falco peregrinus	Peregrine falcon
Haemorhous mexicanus	House finch
Icterus cucullatus	Hooded oriole
Leiothlypis celata	Orange crowned warbler
Melanerpes formicivorus	Acorn woodpecker
Patagioenas fasciata	Band-tailed pigeon
Psaltriparus minimus	Bushtit
Sayornis nigricans	Black phoebe
Setophaga coronate audoboni	Audubon's warbler
S. nigrescens	Black-throated gray warbler
S. townsendi	Townsend's warbler
Spinus psaltria	Lesser goldfinch
Streptopelia decaocto	Eurasian collared dove
Zenaida macroura	Mourning dove
Zonotrichia leucophrys	White-crowned sparrow

Species Scientific Name	Species Common Name
Reptiles and Amphibians	
Anaxyrus boreas	Western toad
Arizona elegans occidentalis	California glossy snake
Batrachoseps major	Garden slender salamander
Coleonyx variegatus	Western banded gecko
Crotalus ruber	Red diamond rattlesnake
Elgaria multicarinata	Southern alligator lizard
E. multicarinata webii	San Diego alligator lizard
Indotyphlops braminus	Brahminy blindsnake
Mimus polyglottos	Northern mockingbird
Pseudacris hypochondriaca	Baja California tree frog
Spea hammondii	Western spadefoot
Sceloporus occidentalis	Western fence lizard
Trachemys scripta elegans	Red-eared slider
Uta stansburiana	Common side-blotched lizard
Mammals	
Didelphis virginiana	Virgina opossum
Dipodomys sp.	Kangaroo rats
Mephitis	Striped skunk
Otospermophilus beecheyi	California ground squirrel
Sciurus niger	Fox squirrel

Source: Inaturalist 2020a

The results from the NMFS and USFWS Official Species Lists, CNDDB, and CNPS database searches are provided in Appendices A through D. The results from the CNDDB search are shown in Figure 5-1. Table 5-2 shows the potential for special-status species and sensitive natural communities to occur within or near the BSA. Potential to occur was based on the known distribution of the species or community and the presence of suitable habitat and habitat features within or near the BSA.

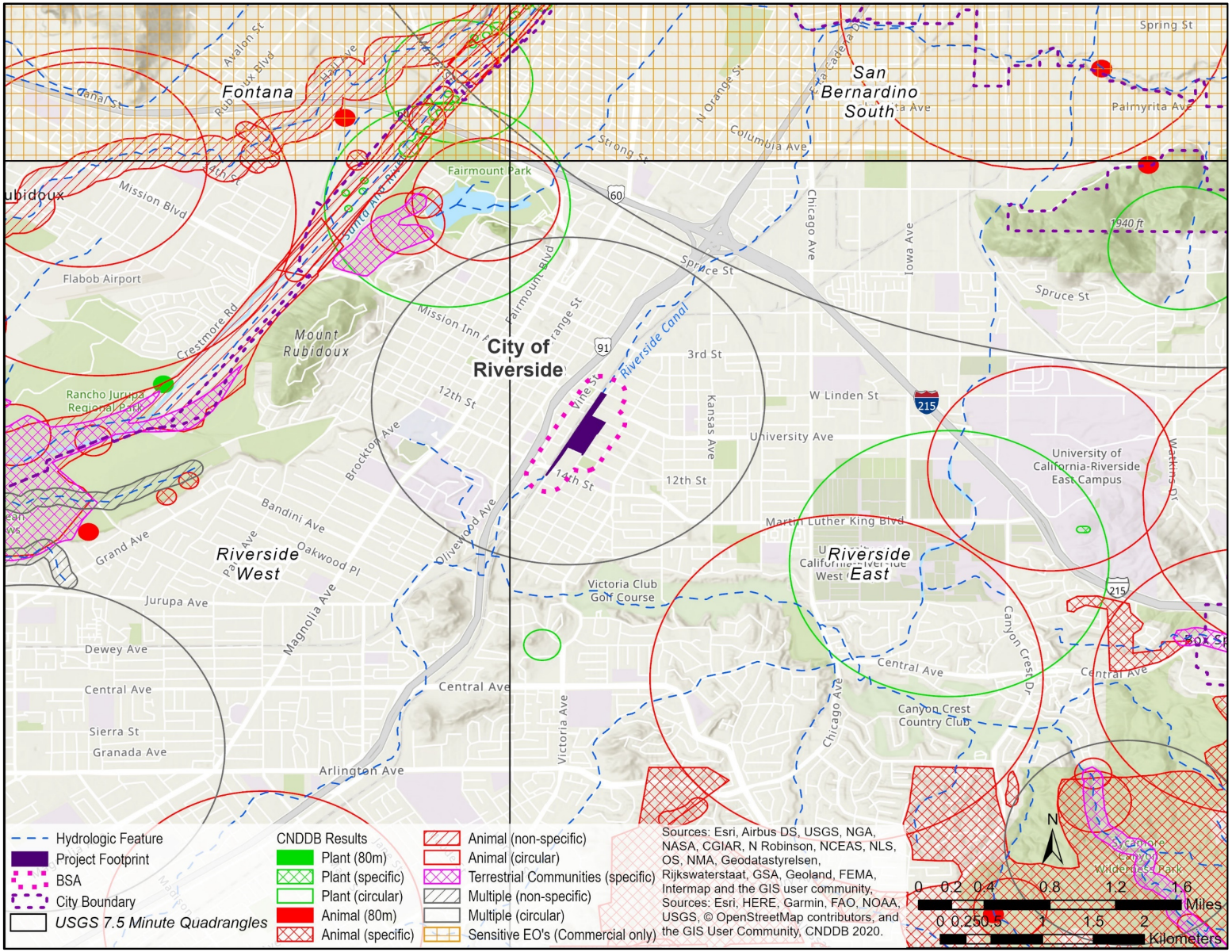

Figure 5-1. CNDDB Results in the Vicinity of the Project (Riverside County)

Source: HNTB 2020

Table 5-2. Potential for Special-Status Species and Sensitive Natural Communities to Occur within the Project Footprint

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Amphibians				
Southern mountain yellow-legged frog	*Rana muscosa*	FE/CE/USFS	Aquatic. Federal listing refers to the Southern Distinct Population Segment in the San Gabriel, San Jacinto, and San Bernardino mountains. Always encountered within a few feet of water. Tadpoles may require 2 to 4 years to complete their aquatic development.	**None.** No suitable habitat in the Project BSA.
Western spadefoot	*Spea hammondii*	SSC/BLMS	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pool, wetland. Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	**None.** No suitable habitat in the Project BSA.
Reptiles				
California glossy snake	*Arizona elegans occidentalis*	SSC	Patchily distributed from the southern San Joaquin Valley, and the coast, Transverse, and Peninsular Ranges, south to Baja California (Mexico). Generalist species reported from a range of scrub and grassland habitats, often with loose or sandy soils.	**None.** No suitable habitat in the BSA. Inaturalist observation in the City of Riverside has been geographically obscured so exact location near Riverside cannot be determined.
Coast horned lizard	*Phrynosoma blainvillii*	SSC/BLMS	Chaparral, cismontane woodland, coastal bluff scrub, coastal scrub. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	SSC	Coastal scrub. Brushy or shrubby vegetation in coastal Southern California. Requires small mammal burrows for refuge and overwintering sites.	**None.** No suitable habitat in the BSA.
Coastal whiptail	*Aspidoscelis tigris stejnegeri*	SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	**None.** No suitable habitat in the BSA.
Orange-throated whiptail	*Aspidoscelis hyperythra*	WL/USFS	Chaparral, cismontane woodland, coastal scrub. Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food source (termites).	**None.** No suitable habitat in the BSA.
Red-diamond rattlesnake	*Crotalus ruber*	SSC/USFS	Chaparral, Mojavean desert scrub, Sonoran desert scrub. Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	**None.** There is an Inaturalist occurrence in Riverside; however exact location has been obscured. No suitable habitat in the BSA.
San Bernardino ringneck snake	*Diadophis punctatus modestus*	USFS	Most common in open, relatively rocky areas. Often in somewhat moist microhabitats near intermittent streams. Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous vegetation.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
San Diego banded gecko	*Coleonyx variegatus abbotti*	SSC	Chaparral, coastal scrub. Coastal and cismontane Southern California. Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	**None.** No suitable habitat in the BSA.
Southern California legless lizard	*Anniella stebbinsi*	SSC/USFS	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub. Generally south of the Transverse Range, extending to northwestern Baja California (Mexico). Occurs in sandy or loose loamy soils under sparse vegetation. Variety of habitats; generally in moist, loose soil. Prefers soils with a high moisture content.	**None.** No suitable habitat in the BSA.
Two-striped gartersnake	*Thamnophis hammondii*	SSC/BLMS/ USFS	Marsh and swamp, riparian scrub, riparian woodland, wetland. Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 feet elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	**None.** No suitable habitat in the BSA.
Western pond turtle	*Emys marmorata*	SSC/BLMS/ USFS	Aquatic, artificial flowing waters, Klamath/north coast flowing/standing waters, marsh and swamp, Sacramento/San Joaquin flowing/standing waters, south coast flowing/standing waters, wetlands. A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet in elevation. Needs basking sites and upland habitat (sandy banks or grassy open fields) up to 0.3 mile from water for egg-laying.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Birds				
Bald eagle	*Haliaeetus leucocephalus*	FD/SE/FP/ BLMS/CDFS/ USFS/BCC	Lower montane coniferous forest, old growth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**None.** No suitable habitat in the BSA.
Bell's sage sparrow	*Artemisiospiza belli*	WL/BCC	Chaparral, coastal scrub. Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6 to 18 inches above ground. Territories about 50 yards apart.	**None.** No suitable habitat in the BSA.
Burrowing owl	*Athene cunicularia*	SSC/BLMS/ BCC	Coastal prairie, coastal scrub, Great Basin grassland/scrub, Mojavean/Sonoran Desert scrub, valley and foothill grassland. Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**None.** No suitable habitat in the BSA.
California black rail	*Laterallus jamaicensis coturniculus*	ST/FP/BLMS/ BCC	Brackish/freshwater marsh, marsh and swamp, salt marsh, wetland. Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
California horned lark	*Eremophila alpestris actia*	WL	Marine intertidal and splash zone communities, meadow and seep. Coastal regions, chiefly from Sonoma County to San Diego County. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	**None.** No suitable habitat in the BSA.
Coastal California gnatcatcher	*Polioptila californica*	FT/SSC	Coastal scrub/bluff scrub. Permanent resident of and requires coastal sage scrub below 2,500 feet in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	**None.** No suitable habitat in the BSA.
Cooper's hawk	*Accipiter cooperii*	WL	Cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest. Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks. Also found in urban areas.	**Moderate.** Cooper's hawks are known to both hunt and nest in urban areas. There are Inaturalist observations in the City of Riverside.
Ferruginous hawk	*Buteo regalis*	WL/BCC	Great Basin grassland/scrub, piñon and juniper woodlands, valley and foothill grassland. Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of piñon and juniper habitats. Eats mostly lagomorphs (hares, rabbits, and pikas), ground squirrels, and mice. Population trends may follow lagomorph population cycles.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Lawrence's goldfinch	*Spinus lawrencei*	BCC	Broadleaved upland forest, chaparral, piñon and juniper woodlands, riparian woodland. Nests in open oak or other arid woodland and chaparral, near water. Nearby herbaceous habitats used for feeding. Closely associated with oaks.	**None.** No suitable habitat in the BSA.
Least Bell's vireo	*Vireo bellii pusillus*	FE/CE	Riparian forest/scrub/woodland. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, coyote brush, mesquite.	**None.** No suitable habitat in the BSA.
Loggerhead shrike	*Lanius ludovicianus*	SSC/BCC	Broadleaved upland forest, desert wash, Joshua tree woodland, Mojavean desert scrub, piñon and juniper woodlands, riparian woodland, Sonoran Desert scrub. Broken woodlands, savannah, piñon -juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**None.** No suitable habitat in the BSA.
Long-eared owl	*Asio otus*	SSC	Cismontane woodland, Great Basin scrub, riparian forest/woodland, upper montane coniferous forest. Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Merlin	*Falco columbarius*	WL	Estuary, Great Basin grassland, valley and foothill grassland. Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	**None.** No suitable habitat in the BSA.
Osprey	*Pandion haliaetus*	WL/CDFS	Riparian forest. Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in treetops within 15 miles of a good fish-producing body of water.	**None.** No suitable habitat in the BSA.
Peregrine falcon	*Falco peregrinus anatum*	FP/CDFS/ BCC	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	**Moderate.** May use urban areas. Inaturalist observations within downtown City of Riverside.
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	WL	Chaparral, coastal scrub. Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	**None.** No suitable habitat in the BSA.
Southwestern willow flycatcher	*Empidonax traillii extimus*	FE/SE	Riparian woodlands in Southern California.	**None.** No suitable habitat in the BSA.
Swainson's hawk	*Buteo swainsoni*	ST/BCC/ BLMS	Great Basin grassland, riparian forest/woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**None.** No suitable habitat in the BSA. No CNNDB observations since the early 20th century.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Tricolored blackbird	*Agelaius tricolor*	SSC/BCC/ BLMS	Freshwater marsh, marsh and swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few miles of the colony.	**None.** No suitable habitat in the BSA.
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT/SE/BCC/ BLMS/USFS	Riparian forest. Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**None.** No suitable habitat in the BSA.
White-tailed kite	*Elanus leucurus*	FP/BLMS	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, wetland. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**None.** No suitable habitat in the BSA.
Yellow rail	*Coturnicops novebiracebsus*	SSC/USFS/ BCC	Freshwater marsh, meadow and seep.	**None.** No suitable habitat in the BSA.
Yellow warbler	*Setophaga petechia*	SSC/BCC	Riparian forest/scrub/woodland. Riparian plant associations in close proximity to water.	**None.** No suitable habitat in the BSA.
Yellow-breasted chat	*Icteria virens*	SSC	Riparian forest/scrub/woodland. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of the ground.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Fish				
Arroyo chub	*Gila orcuttii*	SSC/USFS/ AFSV	Aquatic, south coast flowing waters. Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave and San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	**None.** No suitable habitat in the BSA.
Santa Ana speckled dace	*Rhinichthys osculus ssp. 3*	SSC/USFS/ AFST	Aquatic, south coast flowing waters. Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temperature of 63 to 68 F. Usually inhabits shallow cobble and gravel riffles.	**None.** No suitable habitat in the BSA.
Santa Ana sucker	*Catostomus santaanae*	FT/AFST	Aquatic, south coast flowing waters. Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	**None.** No suitable habitat in the BSA.
Steelhead - Southern California Distinct Population Segment	*Oncorhynchus mykiss irideus*	FE/AFSE	Aquatic, south coast flowing waters. Federal listing refers to populations from Santa Maria River south to the southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Mammals				
American badger	*Taxidea taxus*	SSC	Found in a wide range of habitats. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**None.** No suitable habitat in the BSA.
Los Angeles pocket mouse	*Perognathus longimembris brevinasus*	SSC	Coastal scrub. Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	**None.** No suitable habitat in the BSA.
Northwestern San Diego pocket mouse	*Chaetodipus fallax*	SSC	Chaparral, coastal scrub. Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	**None.** No suitable habitat in the BSA.
Pallid bat	*Antrozous pallidus*	SSC/BLMS/ USFS/ WBWGH	Chaparral, coastal scrub, desert wash, Great Basin grassland/scrub, Mojavean/Sonoran Desert scrub, riparian woodland, upper montane coniferous forest, valley and foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low.** Roosts can be found in buildings and other human structures within the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	SSC/ WBWGM	Joshua tree woodland, piñon and juniper woodlands, riparian scrub, Sonoran desert scrub. Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	**Low.** Roosts can include various human structures and trees in the BSA.
San Bernardino kangaroo rat	*Dipodomys merriami parvus*	FE/SCE/SSC	Coastal scrub. Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate successional stages.	**None.** No suitable habitat in the BSA.
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	SSC	Coastal scrub. Intermediate canopy stages of shrub habitats and open shrub /herbaceous and tree /herbaceous edges. Coastal sage scrub habitats in Southern California.	**None.** No suitable habitat in the BSA.
San Diego desert woodrat	*Neotoma lepida intermedia*	SSC	Coastal scrub. Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	**None.** No suitable habitat in the BSA.
Southern grasshopper mouse	*Onychomys torridus ramona*	SSC	Chenopod scrub. Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran (grasshoppers, crickets, and katydids) insects.	**None.** No suitable habitat in the BSA.
Stephens' kangaroo rat	*Dipodomys stephensi*	FE/ST	Coastal scrub, valley and foothill grassland. Primarily annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Western mastiff bat	*Eumops perotis californicus*	SSC/BLMS/ WBWGH	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	**Low-Moderate.** Can be found in buildings within the BSA. Colonies found in Norco in Rancho Cucamonga (WBWG, 2020)
Western yellow bat	*Lasiurus xanthinus*	SSC/ WBWGH	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	**Low-Moderate.** CNDDB occurrences from the 1990s within urbanized City of Riverside are presumed to still occur. Could roost in palm trees within the BSA.
Yuma myotis	*Myotis yumanensis*	BLMS/ WBWGLM	Lower montane coniferous forest, riparian forest/woodland, upper montane coniferous forest. Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	**Low.** Can be found in buildings within the BSA.
Arthropods				
Busck's gallmoth	*Carolella busckana*	-	Habitat requirements are unknown. Records are historic, pre-1939.	**None.** No recent records; last record was from 1939 (CNDDB 2020). Presumed extirpated (no longer in the area).

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Crotch bumble bee	*Bombus crotchii*	SCE	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include snapdragons (*Antirrhinum* spp.), phacelias , clarkias, tree poppies (*Dendromecon* spp.), poppies (*Eschscholzia* spp.), and wild buckwheats (*Eriogonum* spp.).	**None.** No suitable habitat in the BSA.
Delhi Sands flower-loving fly	*Rhaphiomidas terminatus abdominalis*	FE	Interior dunes. Found only in areas of the Delhi Sands formation in southwestern San Bernardino and northwestern Riverside counties.	**None.** No suitable habitat in the BSA.
Desert cuckoo wasp	*Ceratochrysis longimala*	-	Upper Sonoran Zone of Southern California. CNDDB Records are pre-1959.	**None.** Habitat conversion since specimens were collected has probably resulted in extirpation.
Greenest tiger beetle	*Cicindela tranquebarica viridissima*	-	Riparian woodland. Inhabits the woodlands adjacent to the Santa Ana River basin. Usually found in open spots between trees.	**None.** No suitable habitat in the BSA.
Quino checkerspot butterfly	*Euphydryas editha quino*	XCI	Chaparral, coastal scrub. Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. Hills and mesas near the coast. Need high densities of food plants California plantain (*Plantago erecta*), desert plantain (*P. insularis*), and purple owl's clover (*Orthocarpus purpurescens*).	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Riverside fairy shrimp	*Streptocephalus woottoni*	FE	Coastal scrub, valley and foothill grassland, vernal pool, wetland. Only found in Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabit seasonally astatic pools (with fluctuating water levels) filled by winter/spring rains. Hatch in warm water.	**None.** No suitable habitat in the BSA.
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**None.** No suitable habitat in the BSA.
Plants				
Alvin Meadow bedstraw	*Galium californicum ssp. primum*	1B.2/BLMS/USFS	Chaparral, lower montane coniferous forest. Grows in shade of trees and shrubs at the lower edge of the pine belt, in pine forest-chaparral ecotone (gradient). Granitic, sandy soils. Found at 4,790 to 6,000 feet in elevation 10 to 1,215 feet in elevation	**None.** No suitable habitat in the BSA.
Bristly sedge	*Carex comosa*	2B.1	Coastal prairie, freshwater marsh, marsh and swamp, valley and foothill grassland, wetland. Lake margins, wet places; site below sea level is on a Delta island. Found at 16 feet below sea level to 3,314 feet in elevation.	**None.** No suitable habitat in the BSA.
California satintail	*Imperata brevifolia*	2B.1/USFS	Coastal scrub, chaparral, riparian scrub, Mojave desert scrub, meadows and seeps (alkali), riparian scrub, wetlands. Mesic sites (with moderate amounts of moisture), alkali	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
			seeps, riparian areas. Found at 10 to 4,905 feet in elevation.	
Chaparral ragwort	*Senecio aphanactis*	2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Found at 66 to 3,346 feet in elevation.	**None.** No suitable habitat in the BSA.
Chaparral sand-verbena	*Abronia villosa var. aurita*	1B.1/BLMS/ USFS	Chaparral, coastal scrub, desert dunes. Sandy areas. Found at 197 to 5,151 feet in elevation.	**None.** No suitable habitat in the BSA.
Coulter's goldfields	*Lasthenia glabrata ssp. coulteri*	1B.1/BLMS	Coastal salt marshes, alkali playas, vernal pools, wetlands, marsh and swamp. Usually found on alkaline soils in playas, sinks, and grasslands. Found at 3 to 4,511 feet in elevation.	**None.** No suitable habitat in the BSA.
Coulter's matilija poppy	*Romneya coulteri*	4.2	Often in burns, chaparral, coastal scrub. Found at 66 to 3,937 feet in elevation.	**None.** No suitable habitat in the BSA.
Davidson's saltscale	*Atriplex serenana var. davidsonii*	1B.2	Coastal bluff scrub, coastal scrub. Alkaline soil. Found at 0 to 1,575 feet in elevation.	**None.** No suitable habitat in the BSA.
Gambel's water cress	*Nasturtium gambelii*	FE/ST/1B.1	Marshes and swamps, brackish marsh, wetlands. Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. Found at 15 to 1,000 feet in elevation.	**None.** No suitable habitat in the BSA.
Horn's milk-vetch	*Astragalus hornii var. hornii*	1B.1/BLMS	Alkali playa, meadow and seep, wetland. Lake margins, alkaline sites. Found at 246 to 1,148 feet in elevation.	**None.** No suitable habitat in the BSA.
Little mousetail	*Myosurus minimus ssp. apus*	3.1	Vernal pools, valley and foothill grassland. Alkaline soils. Found at 66 to 2,100 feet in elevation.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Long-spined spineflower	*Chorizanthe polygonoides var. longispina*	1B.2/BLMS	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, ultramafic, vernal pools. Gabbroic clay. Found at 98 to 5,348 feet in elevation.	**None.** No suitable habitat in the BSA.
Los Angeles sunflower	*Helianthus nuttallii ssp. parishii*	1A	Marshes and swamps (coastal salt and freshwater), wetland. Found at 115 to 5,003 feet in elevation.	**None.** No suitable habitat in the BSA.
Many-stemmed dudleya	*Dudleya multicaulis*	1B.2/BLMS/ USFS	Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clayey soils or grassy slopes. Found at 3 to 2,986 feet in elevation.	**None.** No suitable habitat in the BSA.
Marsh sandwort	*Arenaria paludicola*	FE/SE/1B.1	Freshwater marsh, marsh and swamp, wetland. Growing up through dense mats of cattails, rushes, sedges., etc. in freshwater marsh. Sandy soil. Found at 15 to 558 feet in elevation.	**None.** No suitable habitat in the BSA.
Mesa horkelia	*Horkelia cuneata var. puberula*	1B.1/USFS	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. Found at 49 to 5,397 feet in elevation.	**None.** No suitable habitat in the BSA.
Munz's onion	*Allium munzii*	FE/ST/1B.1	Chaparral, cismontane woodland, coastal scrub, piñon and juniper woodlands, valley and foothill grassland. Heavy clay soils; grows in grasslands and openings within shrublands or woodlands. Found at 1,230 to 3,412 feet in elevation.	**None.** No suitable habitat in the BSA.
Nevin's barberry	*Berberis nevinii*	FE/SE/1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, north-facing slopes or in low grade sandy washes. Found at 295 to 5,217 feet in elevation.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Palmer's grapplinghook	*Harpagonella palmeri*	4.2	Chaparral, coastal scrub, valley and foothill grassland. Clay soils; open grassy areas within shrubland. Found at 66 to 3,133 feet in elevation.	**None.** No suitable habitat in the BSA.
Paniculate tarplant	*Deinandra paniculata*	4.2	Usually vernally mesic, sometimes sandy, coastal scrub, valley and foothill grassland, vernal pools. Found at 82 to 3,084 feet in elevation.	**None.** No suitable habitat in the BSA.
Parish's brittlescale	*Atriplex parishii*	1B.1/USFS	Alkali playa, chenopod scrub, meadow and seep, vernal pool, wetland. Usually on drying alkali flats with fine soils. Found at 13 to 4,659 feet in elevation.	**None.** No suitable habitat in the BSA.
Parish's bush-mallow	*Malacothamnus parishii*	1A	Chaparral, coastal sage scrub. In a wash. Found at 1,001 to 1,493 feet in elevation.	**None.** No suitable habitat in the BSA.
Parish's desert-thorn	*Lycium parishii*	2B.3	Coastal scrub, Sonoran desert scrub. Found at 10 feet below sea level to 1,870 feet in elevation.	**None.** No suitable habitat in the BSA.
Parish's gooseberry	*Ribes divaricatum var. parishii*	1A	Riparian woodland. willows. swales in riparian habitats. Found at 213 to 984 feet in elevation.	**None.** No suitable habitat in the BSA.
Parry's spineflower	*Chorizanthe parryi var. parryi*	1B.1/BLMS/ USFS	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of two vegetation types, such as chaparral and oak woodland. Dry, sandy soils. Found at 295 to 4,003 feet in elevation.	**None.** No suitable habitat in the BSA.
Payson's jewelflower	*Caulanthus simulans*	4.2/USFS	Chaparral, coastal scrub. Frequently in burned areas, or in disturbed sites such as streambeds; also on rocky, steep slopes.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
			Sandy, granitic soils. Found at 295 to 7,218 feet in elevation.	
Peninsular spineflower	*Chorizanthe leptotheca*	4.2	Alluvial fan, granitic, chaparral, coastal scrub, lower montane coniferous forest. Found at 984 to 6,234 feet in elevation.	**None.** No suitable habitat in the BSA.
Peruvian dodder	*Cuscuta obtusiflora var. glandulosa*	2B.2	Marshes and swamps (freshwater), wetlands. Found at 49 to 919 feet in elevation.	**None.** No suitable habitat in the BSA.
Plummer's mariposa-lily	*Calochortus plummerae*	4.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. Found at 197 to 8,202 feet in elevation.	**None.** No suitable habitat in the BSA.
Prairie wedge grass	*Sphenopholis obtusata*	2B.2	Cismontane woodland, meadows and seeps. Open moist sites, along rivers and springs, alkaline desert seeps. Found at 49 to 8,612 feet in elevation.	**None.** No suitable habitat in the BSA.
Pringle's monardella	*Monardella pringlei*	1A	Coastal scrub. Sandy hills. Found at 984 feet in elevation.	**None.** No suitable habitat in the BSA.
Robinson's pepper-grass	*Lepidium virginicum var. robinsonii*	4.3	Chaparral, coastal scrub. Dry soils, shrubland. Found at 13 to 4,708 feet in elevation.	**None.** No suitable habitat in the BSA.
Salt marsh bird's-beak	*Chloropyron maritimum ssp. maritimum*	FE/SE/1B.2	Marshes and swamps, coastal dunes, wetlands, salt marsh. Limited to the higher zones of salt marsh habitat. Found at 0 to 33 feet in elevation.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Salt spring checkerbloom	*Sidalcea neomexicana*	2B.2	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. Found at 10 to 7,808 feet in elevation.	**None.** No suitable habitat in the BSA.
San Bernardino aster	*Symphyotrichum defoliatum*	1B.2/BLMS/ USFS	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. Found at 10 to 6,709 feet in elevation.	**None.** No suitable habitat in the BSA.
San Diego ambrosia	*Ambrosia pumila*	FE/1B.1	Chaparral, coastal scrub, valley and foothill grassland. Sandy loam or clay soil; sometimes alkaline. In valleys; persists where disturbance has been superficial. Sometimes on margins or near vernal pools. Found at 10 to 1,902 feet in elevation.	**None.** No suitable habitat in the BSA.
San Diego sagewort	*Artemisia palmeri*	4.2	Chaparral, coastal scrub, riparian forest/scrub/woodland. Found at 49 to 3,002 feet in elevation.	**None.** No suitable habitat in the BSA.
San Jacinto Valley crownscale	*Atriplex coronata var. notatior*	FE/1B.1	Alkali playa, valley and foothill grassland, vernal pool, wetland. Alkaline areas in the San Jacinto River Valley. Found at 115 to 1,509 feet in elevation.	**None.** No suitable habitat in the BSA.
Santa Ana River woolly-star	*Eriastrum densifolium ssp. sanctorum*	FE/SE/1B.1	Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. Found at 591 to 2,313 feet in elevation.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Slender-horned spineflower	*Dodecahema leptoceras*	FE/SE/1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include brittlebrushes, prairie clovers, broomsages, etc. Sandy soils. Found at 656 to 2,510 feet in elevation.	**None.** No suitable habitat in the BSA.
Small-flowered microseris	*Microseris douglasii ssp. platycarpha*	4.2	Clay, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools. Found at 49 to 3,510 feet in elevation.	**None.** No suitable habitat in the BSA.
Small-flowered morning-glory	*Convolvulus simulans*	4.2	Clay, serpentinite seeps, chaparral (openings), coastal scrub, valley and foothill grassland. Found at 98 to 2,428 feet in elevation.	**None.** No suitable habitat in the BSA.
Smooth tarplant	*Centromadea pungens ssp. laevis*	1B.1	Alkaline, chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland. Found at 0 to 2,100 feet in elevation.	**None.** No suitable habitat in the BSA.
Snake cholla	*Cylindropuntia californica* var. *californica*	1B.1	Chaparral, coastal scrub. Found at 98 to 492 feet in elevation.	**None.** No suitable habitat in the BSA.
South coast saltscale	*Atriplex pacifica*		Coastal bluff scrub, coastal dunes/scrub, playas. Found at 0 to 459 feet in elevation.	**None.** No suitable habitat in the BSA.
Spreading navarretia	*Navarretia fossalis*	FT/1B.1	Vernal pools, chenopod scrub, marshes and swamps, playas. San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. Found at 49 to 2,788 feet in elevation.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Thread-leaved brodiaea	*Brodiaea filifolia*	FT/SE/1B.1	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. Found at 49 to 3,379 feet in elevation.	**None.** No suitable habitat in the BSA.
Vernal barley	*Hordeum intercedens*	3.2	Coastal dunes/scrub, valley and foothill grassland (saline flats and depressions), vernal pools. Found at 16 to 3,281 feet in elevation.	**None.** No suitable habitat in the BSA.
Western spleenwort	*Asplenium vespertinum*	4.2	Rocky, chaparral, cismontane woodland, coastal scrub. Found at 591 to 3,281 feet in elevation.	**None.** No suitable habitat in the BSA.
White rabbit-tobacco	*Pseudognaphaliu m leucocephalum*	2B.2	Riparian woodland, cismontane woodland, coastal scrub, chaparral. Sandy, gravelly sites. Found at 115 to 1,590 feet in elevation.	**None.** No suitable habitat in the BSA.
Woven-spored lichen	*Texosporium sancti-jacobi*	3	Chaparral. Open sites with chamise (*Adenostoma fasciculatum)*, buckwheat (*Eriogonum* spp.), spikemoss (*Selaginella* spp.). Found on soil, small mammal pellets, dead twigs, and spikemoss. Found at 197 to 2,854 in elevation.	**None.** No suitable habitat in the BSA.
Wright's trichocoronis	*Trichocoronis wrightii var. wrightii*	2B.1	Marshes and swamps, riparian forest, meadows and seeps, vernal pools. Mud flats of vernal lakes, drying riverbeds, alkali meadows. Found at 16 to 1,427 feet in elevation.	**None.** No suitable habitat in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Natural Communities				
Riversidian Alluvial Fan Sage Scrub			Found primarily on alluvial fans, flood plains along the southern bases of the Transverse Ranges and portions of the Peninsular Ranges in Southern California. Relatively open, periodic flooding and erosion, drought-deciduous shrubs and larger evergreen woody shrubs characteristic of both coastal sage scrub and chaparral communities.	**None.** Habitat type not found in BSA.
Southern California Arroyo Chub/Santa Ana Sucker Stream			Streams and floodplains in Southern California with arroyo chub and Santa Ana sucker.	**None.** Habitat type not found in the BSA.
Southern Coast Live Oak Riparian Forest			Open to locally dense evergreen sclerophyllous (scrub) riparian woodlands dominated by coast live oak (*Quercus agrifolia*).	**None.** Habitat type not found in the BSA.
Southern Cottonwood Willow Riparian Forest			Tall, open, broadleafed winter-deciduous riparian forests dominated by Fremont cottonwood (*Populus fremontii*), black cottonwood (*P. trichocarpa*), and several tree willows.	**None.** Habitat type not found in the BSA.
Southern Riparian Forest			Dense riparian forest. Found along streams and rivers in Southern California. Characteristic Species: western sycamore (*Platanus racemose*), cottonwoods (*Populus* spp.), and many other wetland plants.	**None.** Habitat type not found in the BSA.

Common name	Species name	Status	General Habitat Description	Potential to Occur in the BSA
Southern Riparian Scrub			Riparian zones dominated by small trees or shrubs (arroyo willow, *Salix lasiolepis*, other willow species, *Salix* spp., coyote brush, *Baccharis sarothroides*), lacking taller riparian trees. Encroaching into some coastal saltmarsh habitats. Mostly in major river systems where flood scour occurs.	**None.** Habitat type not found in the BSA.
Southern Sycamore Alder Riparian Woodland			Tall, open broadleafed, deciduous streamside woodland dominated by *Platanus racemosa* or *Alnus rhombifolia*).	**None.** Habitat type not found in the BSA.
Southern Willow Scrub			Dense, broadleafed, winter-deciduous riparian thickets dominated by several *Salix* species, with scattered emergent Fremont cottonwood and western sycamore.	**None.** Habitat type not found in BSA.

Sources: CDFW 2020, CNDDB 2020, CNPS 2020, USFWS 2020.

Federal ESA

FE = Endangered

FT = Threatened

FC = Candidate

FD = Delisted

Other Federal Status

BCC = USFWS birds of conservation concern

BLMS = Bureau of Land Management sensitive

USFS = U.S. Forestry Service sensitive

California ESA

SE = Endangered

ST = Threatened

SCE = Candidate Endangered

CNPS

1A = Plants presumed extirpated in California and either rare or extinct elsewhere

1B = Plants rare, threatened, or endangered in California and elsewhere

2B = Plants rare, threatened, or endangered in California but more common elsewhere

3 = Review List: Plants about which more information is needed

4 = Watch List: Plants of limited distribution

1 = Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)

2 = Moderately threatened in California (20 to 80% occurrences threatened/moderate degree and immediacy of threat)

3 = Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

Other California Status

FP = CDFW fully protected

SSC = CDFW species of special concern

WL = CDFW watch list

CDFS = California Department of Forestry and Fire Protection sensitive

American Fisheries Society

AFSE = Endangered

AFST = Threatened

AFSV = Vulnerable

Western Bat Working Group (WBWG)

WBWGH = WBWG High priority

WBWGM = WBWG Medium priority

WBWGLM = WBWG Low to Moderate priority

Xerces Society

Xerces XC = Critically impaired

XIM = Imperiled

Potential to Occur/Rationale is as follows:

None = No possibility for occurrence based on the known range of the species; not suitable habitat is present; or, low-quality habitat is present but the species is unlikely to occur due to environmental constraints.

Low = Marginal to suitable habitat present within or adjacent to the Project, but the species has not been documented or recently documented within the BSA.

Moderate = Suitable habitat is present within or near the BSA, and the species has been recently documented within the BSA.

Seven special-status species with the potential to occur within the BSA are described herein. No critical habitat or essential fish habitat (EFH) was identified within the BSA.

Cooper's Hawks and Other Falconiformes (Raptors)

Multiple species of raptors have been observed within the urbanized City of Riverside, including Cooper's hawks, red-tailed hawks, and red-shouldered hawks (Inaturalist, 2020a). All hawks are protected under Section 3503.5 of California Department of Fish and Game code for nesting Falconiformes (including vultures, hawks, and falcons) and the MBTA. These raptors nest in structures or trees in urban areas. These species therefore have a moderate potential to occur in the BSA, most likely during hunting. The trees and structures within and near the BSA is low quality nesting habitat because of the high levels of human activity and low concentration of trees and vegetation. Therefore, these species have a low potential to nest within or near the BSA.

There are four Inaturalist observations of Cooper's hawks between Mount Rubidoux, Highway 215, and the Victoria Club Golf Course, including on Prospect Avenue, and at Lemon and 2nd Streets. Cooper's hawks are also on the CDFW watch list. Cooper's hawks range over most of North America and may be seen throughout California, most commonly as a winter migrant. Nesting pairs have declined throughout the lower-elevation and more populated parts of the state. Cooper's hawks forage in open woodlands and wooded margins, nesting in tall trees, often in riparian areas. This species is known to nest and hunt in urban areas, and may use landscaped trees within or near the BSA (McCabe et al., 2018).

Peregrine Falcon

The peregrine falcon is one of the most widely distributed raptors. In California, breeding habitats include a variety of locations from cliffs in uninhabited areas to tall buildings or bridges within the urban landscape. Peregrine falcons were historically rare in eastern North America and thought to be extirpated in the mid-1960s, but after successful captive breeding and reintroduction, they have become common in cities, taking advantage of artificial nesting sites (e.g. window ledges and suspension bridges) and ample prey (McCabe et al., 2018, Gahbauer et al., 2015. They were listed as endangered in 1970 under FESA, and listed as endangered in 1971 under CESA. Due to diligent conservation and recovery efforts, the species was federally delisted in 1999 and delisted in California in 2009. The peregrine falcon remains a fully protected species in California. Peregrines do not build nests like most other birds, instead they lay their eggs in a "scrape" or shallow indentations high a cliff side, or human-made structure, such as a building or bridge. Occasionally they will use old nests of other birds, such as ravens. The breeding season for peregrine falcons in California generally starts around late-February and early-March, and concludes after the young leave the nest between May and June (CDFW, 2020d). Fully protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take, except under an NCCP. The nearest CNDDB observation, from 2015, is 23 miles away, near Santa Ana. There are Inaturalist observations of peregrine falcons within urbanized Riverside and because of the presence of suitable urban habitat, they have a moderate potential to nest and hunt within the BSA.

Migratory Birds

All of the bird species with observation records on Inaturalist within the 9-square mile area around the Project are protected by the MBTA and the FGC. Other common, non-listed (not designated under FESA or CESA) bird species that may be found nesting or foraging within or near the Project footprint would be protected under the MBTA and the FGC. The MBTA does not protect nonnative birds, including house sparrows (*Passer domesticus*), European starlings (*Sturnus vulgaris*), rock pigeon (*Columba livia*).

Pallid Bat

Pallid bats are a species of special concern in California. They range throughout western North America at low elevation rocky arid deserts and canyonlands, shrub-steppe grasslands, karst formations, and higher elevation coniferous forests. Pallid bats roost alone or in small or large groups. Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods (*Sequoia sempervirens*) and giant sequoias (*Sequoiadendron giganteum*), bole cavities of oaks, exfoliating ponderosa pine (*Pinus ponderosa*) and valley oak (*Quercus lobata*) bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings. Roosts generally have unobstructed entrances and exits, and are high above the ground, warm, and inaccessible to terrestrial predators. However, this species has also been found roosting on or near the ground under burlap sacks, stone piles, rags, and baseboards. Overwintering roosts have relatively cool, stable temperatures and are located in protected structures beneath the forest canopy or on the ground, out of direct sunlight. Pallid bats' tendency to roost in groups and their relative sensitivity to disturbance makes them vulnerable to mass displacement. Where man-made structures are occupied, roosts can be damaged or destroyed by demolition, modification, chemical treatments, or intentional eradication and exclusion. Maternity colonies are especially susceptible to disturbance. In coastal California, urbanization has reduced roosting and foraging habitat (WBWG, 2020). Pallid bats could roost in trees, buildings, or structures within the project footprint. Based on the results of the CNDDB record search, the nearest recorded occurrence of pallid bat is 11 miles away in Riverside in 1928 (CNDDB, 2020). Therefore, pallid bats have a low potential to roost within the BSA.

Pocketed Free-Tailed Bat

The pocket free-tailed bat is a species of special concern in California. Its distribution is in western North America, from Southern California, central Arizona, southern New Mexico and western Texas, south into Mexico including Baja California. The species is thought to be non-migratory. The known altitudinal distribution is from near sea level to about 7,300 feet. The pocketed free-tailed bat is colonial and roosts primarily in crevices of rugged cliffs, high rocky outcrops and slopes. It has been found in a variety of plant associations, including desert shrub and pine-oak forests. The species may also roost in buildings, caves, and under roof tiles. Breeding populations have recently been identified in Southern California. The species forms maternity colonies, and females bear a single offspring in late June or July. This bat forages mainly on large moths, but its diet includes small moths and beetles, with small amounts of a variety of other insects. Owls and snakes have been documented preying on this species. Threats to pocketed free-tailed bat include those generalized to bat species, impacts to foraging areas from grazing, riparian management, the use of pesticides, and disturbance to roost sites (WBWG, 2020). Pocket free-tailed bats have a low potential to roost in structures within the BSA.

Western Mastiff Bat

The western mastiff bat is a species of special concern in California. They range from central Mexico across the southwestern United States. In California roosts can be found up to 4,593 feet in elevation. Mastiff bats are found in a variety of habitats, from desert scrub to chaparral to oak woodland and into the ponderosa pine belt and high elevation meadows of mixed conifer forests. They have also been found in similar crevices in large boulders and buildings. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 9.8 feet below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak. In California, mastiff bats have been detected at all seasons, although they may change roost sites. Mastiff bats in particular, are threatened by urban expansion. When colonies are within or in close proximity to human dwellings, they are vulnerable to disturbance, vandalism, and removal by

pest control operators and public health departments. Two colonies in buildings in Norco and Rancho Cucamonga were eradicated recently in the name of public health. Western mastiff bats can fly 15 to 18 miles in a night (WBWG, 2020). The BSA is within range of Norco and Rancho Cucamonga. The nearest CNDDB record is approximately 5 miles west of the Project. Given the suitable habitat within the BSA and occurrences nearby but not within the BSA, western mastiff bats therefore have a low to moderate potential to occur within the BSA.

Western Yellow Bat

Western yellow bats are distributed across in northern Mexico, western Arizona, Southern California, southern Nevada, and southwestern New Mexico. Western yellow bats are found in desert regions of the southwestern United States, where they show a particular association with palms and other desert riparian habitats. They are known to occur in a number of palm oases, but are also believed to be expanding their range with the increased usage of ornamental palms in landscaping (WBWG, 2020). Yellow bats are suspected to be non-colonial. Individuals usually roost in trees, hanging from the underside of a leaf. They are commonly found in the southwestern U.S. roosting in the skirt of dead fronds in both native and non-native palm trees (WBWG, 2020). This species likely suffers from general threats to North American bat species: the loss of clean, open water; modification or destruction of roosting and foraging habitat; and, for hibernating species, disturbance or destruction of hibernacula. Chemicals in the environment that affect bats or their prey are also a threat. Because of low fecundity, high juvenile mortality, and long generational turnover, many bat populations may be vulnerable to human-induced pressures. There are CNDDB occurrences from the 1990's within the urbanized City of Riverside and western yellow bats are known roost in palm trees. The urbanized habitat and palm trees within the BSA are therefore suitable habitat for this species. Given the suitable habitat within the BSA and occurrences nearby but not within the BSA, western yellow bats have a low to moderate potential to occur within the BSA.

Yuma Myotis

The Yuma myotis, identified as sensitive by the Bureau of Land Management (BLM) and as a low to moderate conservation priority by the WBWG, ranges across the western third of North America from British Columbia, Canada, to Baja California and southern Mexico. They are also identified by the BLM as a sensitive species. The Yuma myotis occurs in a variety of habitats including riparian, arid scrublands and deserts, and forests. The species roosts in bridges, buildings, cliff crevices, caves, mines, and trees. Yuma myotis may be affected by closure of abandoned mines without adequate surveys, some forest management practices, and disturbance of maternity roosts in caves and buildings. Since this species frequently occurs in human-made structures, it is vulnerable to destructive pest control activities (WBWG, 2020). The nearest CNDDB records is 10 miles to the southwest and therefore has a low potential to occur in the project footprint.

Protected Bats

In addition to the pallid bat, western mastiff bat, and yuma myotis, other native species have the potential to be found in structures and vegetation in or near the Project footprint. Native species that do not otherwise have a special-status, such as the Mexican free-tailed bat (*Tadarida brasilensis*), have the potential to roost in structures and buildings. In general, the long-term persistence of North American bat species is threatened by the loss of clean, open water; modification or destruction of roosting and foraging habitat; and, for hibernating species, disturbance or destruction of hibernacula. All native bats are protected under the FGC.

Trees

There are 51 trees that may be removed by the Project. Most of these trees were planted by RCTC in the overflow parking lot as well as palm trees along the railroad right of way. A site visit was not conducted for this study, and therefore the exact species could not be determined.

Palm trees are visible in Google Earth Pro (Google 2020). The size and species of tree would be determined prior to construction. Street trees in the City of Riverside include Mexican fan palm (*Washingtonia robusta*), California fan palm (*W. filifera*), crape myrtle (*Lagerstroemia indica*), shamel ash (*Fraxinus udei*), and holly oak (*Quercus ilex*) and may occur within the footprint.

5.3 Habitat Connectivity and Wildlife Movement

Habitat elements that can provide connectivity for wildlife include riparian areas, creeks, parks, natural areas, channels and watercourses, and culverts. The WRCMSHCP identifies the Santa Ana River as the nearest core habitat area (a block of habitat of appropriate size, configuration, and vegetation characteristics to generally support the life history requirements of one or more species in the WRCMSHCP). The nearest linkage (connection between core areas) to the Project is to the southeast, between Sycamore Canyon Park, Box Springs Reserve, and Sugarloaf Mountain. Within the BSA, there are no habitat features that provide connectivity for wildlife populations. Highway 215 and SR-91, which act as barriers to wildlife movement, as well as extensive urbanization within 1 mile of the Project, makes the existing condition of the BSA unsuitable for supporting wildlife movement and does not currently contribute to habitat connectivity.

6.0 Biological Resources, Discussion of Impacts and Mitigation Results

This Biological Resources Study evaluates the proposed Project for potential impacts and adverse effects on biological resources. Impacts can be direct or indirect and occur during project construction (temporary impacts), during operation of the Project (permanent impacts), or cumulatively in combination with other projects.

Direct impacts would occur when special-status species are directly affected by injury, mortality, or disruption of essential behaviors (e.g., feeding, reproduction, and migration) temporarily during project construction, such as vegetation removal, excavation, grading, paving, and demolition. Direct impacts would be considered permanent if they would occur during project operation, such as through increases in wildlife-vehicle collisions.

Indirect impacts are typically further in time or at a different location and may occur as a result of habitat or site modifications. These can occur permanently, for example increases in human activity or new linear infrastructure could result in long-term changes to habitat suitability, edge effects, and shifts in population distribution over time. Indirect impacts can also occur temporarily during construction, for example from elevated levels of noise or disturbance (e.g. vibration of construction equipment, presence of construction personnel, or operational increase in vehicle activity) could affect foraging, hunting, and nesting behavior. Indirect impacts due to changes in water quality can affect nearby, downstream, or downgradient vegetation communities, aquatic and wetland habitat, and/or their potential use by sensitive fish and wildlife species. Indirect impacts can occur off-site, for example to downgradient sites that receive polluted runoff during construction or operation.

For NEPA, project effects were evaluated with respect to context and intensity. For CEQA, the impact of the Project was determined based on the significance thresholds provided in the CEQA Guidelines. Avoidance and minimization measures (AMM) are applied where they would feasibly avoid or reduce impacts to biological resources. In accordance with Appendix G of the State CEQA Guidelines, the proposed Project would be considered to have a significant impact if it would result in any of the conditions listed below:

1. 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
2. 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
3. A substantial adverse effect on state or federally protected wetlands (e.g., marshes, vernal pools, coastal wetlands) through direct removal, filling, hydrological interruption, or other means
4. A substantial interference with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impedance of the use of native wildlife nursery sites

5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
6. Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP

Mitigation would be applied where the Project would have a significant impact on biological resources.

6.1 No Build Alternative Impacts

Under the No Build Alternative, there would be no construction of improvements at the existing train station and no changes in train frequency or operations at the Riverside Station. There would be no impact to biological resources. The No Build Alternative would have no effect on state and federally listed special-status species or their habitat.

6.2 Build Alternative

6.2.1 Candidate, Sensitive, or Special-Status Species

The following sections determine if the Build Alternative and the proposed design options 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.

Birds

Nesting migratory birds, Cooper's hawks, and peregrine falcon are present within or near the BSA. Many migratory and native birds have been observed in the BSA (Inaturalist, 2020a). Trees, shrubs, and structures within and near the project footprint may provide suitable nesting habitat for a number of species, including raptors red-tailed hawk, and red-shouldered hawk, as well as other native migratory species. Nests can be found in and on structures (e.g. bridges, buildings) as well as poles and towers. All of these birds, their nests, and their eggs are protected from intentional and incidental take under the federal MBTA, California Migratory Bird Protection Act, and the FGC §§ 3503 and 3513. With the exception of English sparrow (*Passer domesticus*) and European starlings (*Sturnus vulgaris*), the nests, eggs, and nestlings of all birds are protected. The destruction of active nests and interference with nesting activities is prohibited as this would result in the take of nests, eggs, and/or juvenile birds. The loss of active bird nests during construction would be considered a significant impact and could occur directly or indirectly. Peregrine falcons are fully protected species and therefore cannot be taken.

Temporary Impacts

Construction activities have the potential to impact nesting birds, directly and indirectly. Nests can be directly disturbed by tree transplantations or removals, tree trimming, clearing, grubbing, and structural demolition. Increased noise and activity resulting from construction activities, were it to exceed ambient levels, could cause nest abandonment and death of young or loss of reproductive potential at active nests located near construction activities. There is no risk of construction taking non-nesting birds, including peregrine falcon, as they can fly away from construction activities if necessary.

Construction activity for all Parking Design Options would be similar, but would vary in the number of impacted trees (including transplantations or removals, Table 6-1). Design Option 2A would require the most tree transplantations or removals and therefore would have a greater potential for conflicts with and impacts to nesting birds, followed by 2B and 3A, 3B, 1A, and 1B. Structural demolitions also vary by Parking Design Option, with 2A requiring the most structures to be removed, followed by 2B, 1A and 3A, and 1B and 3B requiring the fewest. Design Option

2A therefore has the greatest potential to impact nesting birds, if present within structures to be demolished. Design Option 3B has the least potential to affect birds nesting on structures during construction. Impacts would not vary with Pedestrian Overpass Access Design Option 1.

Table 6-1. Impacted Trees by Design Option

Build + Design Option	Number of Impacted Trees (Private and RCTC Property)	Number of Impacted Trees (City ROW)	Total Impacted Trees
Pedestrian Overpass Access Improvements			
Pedestrian Overpass Access Design Option 1	27	9	36
Parking, Circulation and Streetscape Improvements			
Parking Design Option 1A	27	9	36
Parking Design Option 1B	24	8	32
Parking Design Option 2A	40	11	51
Parking Design Option 2B	37	10	47
Parking Design Option 3A	38	9	47
Parking Design Option 3B	35	8	43

For all Design Options, avoidance, minimization, and mitigation measures (AMMs) as described below is necessary to avoid take of and significant impacts to nesting birds, including peregrine falcons, Cooper's hawks, and other species that are protected by the MBTA and FGC. Pre-construction worker environmental awareness training (WEAT) will review nesting bird protections.

Permanent Impacts

Project operations, with the additional train service, could result in additional noise and visual disturbance. This additional disturbance would not affect special-status birds, result in nest failure, or lower habitat quality because there is no high quality nesting habitat near the footprint. Any birds that currently nest in the vicinity of the Downtown-Riverside Station are acclimated to a high level of human disturbance and noise from the existing rail and station use. The proposed Project, including the new station facilities and/or operations, would not foreseeably result in take of individual or nesting birds, including peregrine falcons. Additional bird strikes as a result of increases in number of trains is not expected, as the trains do not pass through areas with high concentrations of birds. Impacts would not vary by Parking or Pedestrian Overpass Access Design Options. The Project would not have direct or indirect impacts to migratory or special-status birds during project operations.

Avoidance, Minimization and Mitigation Measures

The following measures will be implemented by the Project to avoid and minimize impacts to special-status and nesting birds during construction.

- Where feasible, the contractor will complete tree and shrub removals and structural demolition between September 1 and January 31, which is outside of the nesting season.

- During nesting season (February 1 through September 30) pre-construction surveys for active nests (nests with eggs or juvenile birds that are dependent on parental care) will be conducted by a qualified biologist no more than 48 hours prior to starting construction activities. Surveys will cover any potential nesting sites within 500 feet of construction activity, including vegetation removal and structural demolition.
- Surveys and avoidance measures for active nests will conform to current USFWS and CDFW protocol and recommendations.
- If active nests are observed during pre-construction surveys or during construction, active nest sites will be designated as environmentally sensitive areas and identified with appropriate markers for the duration that eggs or juvenile birds are nest-dependent.
- A qualified biologist will develop buffer recommendations for active nests that are site and species-specific, based on current USFWS and CDFW guidance, and at an appropriate distance that will protect normal bird behavior to prevent nesting failure or abandonment. Additional buffer distance will be implemented for raptors. Buffers will be in place for the duration eggs or juvenile birds are nest-dependent.
- The qualified biologist will monitor the behavior of the birds (adults and young when present) at the nest site to ensure they are not disturbed by project construction. Nest monitoring will continue during nearby construction, until the biologist has confirmed the young have fully fledged (have completely left the nest site and are no longer dependent on the parents).
- A qualified biologist will conduct WEAT for all on-site workers regarding environmental protection measures on the Project, including tree protection measures, stormwater and water quality protection measures, invasive species, and potential special-status species that could occur in or near the Project, including roosting bats, peregrine falcon, and nesting birds.

CEQA/NEPA Conclusions

Due to the increase in noise and visual disturbance to bird behavior during construction, all Design Options for the proposed Project would have a less than significant impact on special-status and migratory birds. Parking Design Option 2A has a greater risk of potential effects based on the expected number of tree and structure removals.

Although parking surface area varies by Parking Design Option, design of permanent BMPs would provide treatment proportional to the amount of new and reworked impervious surface area. With the incorporation of permanent BMPs, indirect effects on water quality is not expected to vary by Design Option.

Avoidance, Minimization and Mitigation Measures

The project will develop and implement a SWPPP, obtain project coverage under the CGP, and comply with NPDES and Section 402 of the CWA. The SWPPP will specify BMPs for erosion, sediment, tracking, wind erosion, non-stormwater management, and waste management and materials pollution control. Stormwater BMPs may include (but are not limited to) the following:

- Stockpile covers and soil stabilization (such as with seeding or hydromulch) will be used to reduce erosion.
- Placing fiber rolls and compost socks to shorten slope length, intercept runoff, reduce runoff velocity, and remove sediment.
- Trackout will be controlled and removed.

- No discharge of pollutants from vehicle and equipment cleaning would be allowed into storm drain inlets.
- A spill response plan (including emergency contacts) would be prepared and kept at the site to address all spill response and emergency issues.

Permanent erosion control measures will be implemented per Caltrans Erosion Control Toolbox, which includes (if applicable):

- Compost incorporated into the topsoil to improve infiltration, increase water holding capacity, improve soil health, and increase rooting depth for plants.
- Collecting duff and re-spreading it following grading activities to add microbes, organic matter, nutrients and water storage capacity to the soil.
- Placing mulch or compost blankets to reduce raindrop erosion, improve infiltration, conserve soil moisture, provide nutrients, reduce runoff and the transport of sediment, reduce competition from invasive annual weed species and improve the potential for vigorous long term vegetation coverage.
- Using biofiltration strips and swales to filter pollutants from stormwater and reduce runoff.

The project will also implement the following measures:

- WEAT (described in Section 6.2.1).
- Additional measures will be implemented for soils containing hazardous materials. The Project would follow the Soil Management Plan (SMP) for handling of soils containing hazardous materials. The SMP will be developed prior to subsurface disturbance activities and will stipulate procedures for monitoring excavated soil, soil handling, stockpiling, characterization, on-site reuse, export, and disposal protocols.

CEQA/NEPA Conclusions

Due to the lack of riparian habitat or other sensitive natural communities within the BSA and with the implementation of temporary and permanent stormwater BMPs, the proposed Project would have no impact, directly or indirectly, on any riparian habitat or other sensitive natural community identified in local or regional plan, policies, regulations, or by the CDFW or United States Fish and Wildlife Service.

6.2.2 Wetlands and Waters

This section assesses if the Project would have a substantial adverse effect on state or federally protected wetlands (e.g., marshes, vernal pools, coastal wetlands) through direct removal, filling, hydrological interruption, or other means. The footprint and BSA include the Riverside Canal, which is a WOTS and WOTUS due to its hydrologic connection to the Santa Ana River.

Temporary Impacts

The proposed Project would have no impact, on state or federally protected waters or wetlands through direct removal, filling, hydrological interruption, or other means. There are no wetlands within the Project footprint and no work in water is proposed. There is no work proposed within the culverted or open section of the Riverside Canal.

Indirect impacts to the Riverside Canal through polluted stormwater runoff during Project construction would be prevented with the incorporation of avoidance and minimization measures. The Project will develop a SWPPP and obtain coverage by the CGP (NPDES) under the Section 402 of the CWA. This is required to prevent potential indirect impacts to WOTS and

WOTUS. As part of pre-construction training, workers will be trained on BMPs to avoid or minimize water pollution. With the incorporation of avoidance and minimization measures, the Project would have less than significant impacts on regulated waters.

The risk of pollutants in runoff (including sediment), increases with the amount of area disturbed. Therefore, Parking Design Option 2A has a greater risk of affecting water quality through to storm water runoff, followed by 2B and 3A which have similar disturbed surface areas, then 3B, 1A, then 1B. Construction BMPs would be designed and scaled based on the extent of disturbance. Stormwater quality is not expected to be affected by Pedestrian Overpass Access Design Option 1. With the incorporation of construction-phase BMPs, indirect effects on water quality is not expected to vary by Design Option.

Permanent Impacts

Project operations would not result in permanent direct impacts to wetlands as none occur within the BSA. Indirect impacts to the Riverside Canal could occur through increases in pollutants in stormwater runoff. The additional facilities, trains, and parking facilities would result in additional impervious surface area, additional vehicles (which are potential pollutant sources), and additional trash generation near the Riverside Canal. With the implementation of permanent stormwater BMPs as part of project design, there would be less than significant impacts to water quality in the Riverside Canal. Although parking surface area varies by Parking Design Option, design of permanent BMPs would provide treatment proportional to the amount of new and reworked impervious surface area. With the incorporation of permanent BMPs, indirect effects on water quality is not expected to vary by Design Option.

Avoidance, Minimization and Mitigation Measures

The Project will implement the following measures to avoid and minimize impacts to regulated waters:

- Implementation of a SWPPP, obtain project coverage under the CGP, and comply with NPDES and Section 402 of the CWA (described in Section 6.2.2).
- Implementation of permanent erosion control measures (described in Section 6.2.2).
- WEAT (described in Section 6.2.1).
- Implementation of an SMP (described in Section 6.2.2).

CEQA/NEPA Conclusions

Implementation of temporary and permanent stormwater BMPs, WEAT, and the SMP would minimize runoff of pollutants into the Riverside Canal. The proposed Project would have a less than significant impact to regulated waters. No 404 permit would be required from USACE and no 401 Certification or WDRs would be required from the SWRCB and RWQCB.

6.2.3 Wildlife Movement

This section assesses if the Project would result in substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedance of the use of native wildlife nursery sites.

Temporary Impacts

Within the proposed BSA, there are no habitat features that provide connectivity for wildlife populations. Highway 215 and SR-91, which act as barriers to wildlife movement, as well as extensive urbanization within 1 mile of the Project, makes the existing condition of the BSA unsuitable for supporting wildlife movement. There are no core habitat areas or critical linkages

identified in the WRCMSHCP in or near the BSA. The BSA therefore does not currently contribute to habitat connectivity. Therefore, temporary construction activities would have no impact on wildlife movement.

Permanent Impacts

The BSA does not contribute to habitat connectivity within the City of Riverside. Therefore, permanent project features and operations would have no impact on wildlife movement.

6.2.4 Local Policies or Ordinances

This section determines if the Project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Trees within the project footprint contribute to the natural and visual character of the project footprint and surrounding area, including providing habitat to urban species such as birds and bats. Both the City and County of Riverside have policies and ordinances that protect trees.

Temporary Impacts

The proposed Project would impact up to 51 trees within the project footprint, some of which may be native species. The majority of these trees are within RCTC or private property. There are 11 trees within the City of Riverside ROW that may be impacted. The number of tree removals would depend on the Design Option (Table 6-1).

The City of Riverside's General Plan prioritizes protection of native plants, habitat and communities and protection of the natural and visual character of the community. The proposed Project will minimize tree removals and protect existing trees from damage during construction . The proposed Project would transplant trees within the Project footprint to the greatest extent feasible. For trees within the City ROW that are removed but cannot be transplanted, non-native trees will be replaced at a 1:1 ratio and native trees will be replaced at a 3:1 ratio (replaced:removed) within or near the Project to the extent feasible. All tree removals, transplantations, and replacements within the City ROW will be done in compliance with Riverside, California's- Code of Ordinances Title 13 - Streets, Sidewalks, Trails and Trees as well as the City of Riverside Urban Forestry Policy Manual (2015). Replacement tree species will be selected by the Public Works Department based on site conditions and tree planting guidelines. A tree removal permit would be acquired from the City of Riverside in accordance with the City of Riverside's Urban Forestry Policy. Pre-construction training (AMM-2) will include tree protection measures.

Riverside County Ordinance 559 does not apply to the Project because the Project is below 5,000 feet of elevation and within the incorporated City of Riverside. Therefore, a tree removal permit from the County is not required.

Permanent Impacts

The proposed Project does not involve tree removals as part of maintenance or operations. Therefore the Project would have no permanent impacts with respect to local ordinances.

Avoidance, Minimization and Mitigation Measures

The final design of the Project will avoid or minimize tree removals. The following measures will be implemented to avoid and minimize tree removals and damage to trees during construction:

- Trees within the project footprint will be surveyed by a licensed arborist prior to removal and transplant.
- Trees that do not need to be removed will have protection measures implemented where necessary to prevent incidental damage during construction. Protection measures will be as specified by the arborist.

- Trees that need to be removed will be transplanted within the Project footprint to the greatest extent feasible.
- For trees within the City ROW that are removed and cannot be transplanted, non-native trees will be replaced at a 1:1 ratio and native trees will be replaced at a 3:1 ratio (replaced:removed) within or near the Project to the greatest extent feasible. Tree replacement and planting will be coordinated through the City in accordance with applicable landscaping plans and approved aesthetic concepts.

CEQA/NEPA Conclusions

To the greatest extent feasible, the proposed Project would comply with city and county policies and ordinances with regards to tree preservation; therefore, the Project would have less than significant impact with respect to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

6.2.5 Habitat Conservation Plan/Natural Community Conservation Plan

This section assesses if the Project would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCPs. The proposed Project occurs within the cities of Riverside/Norco Area Plan part of the WRCMSHCP. The Project is a covered activity in the WRCMSHCP. The Western Riverside County Regional Conservation Authority oversees and administers the WRCMSHCP.

Temporary Impacts

The BSA is not within an area plan subunit. The BSA does not contain or adjoin any core habitat areas, linkages, constrained linkages, noncontiguous habitat blocks, or criteria areas identified in the WRCMSHCP. As a member agency, RCTC is obligated to adopt and maintain ordinances and resolutions, as necessary, to implement the requirements and to fulfill the purposes the WRCMSHCP, it's implementing agreement, and associated permits for its covered activities. This includes:

1. Compliance with the policies for the protection of species associated with riparian/riverine areas and vernal pools
2. Compliance with the policies for the protection of narrow endemic plant species
3. Conducting of surveys
4. Compliance with the urban/wildlands interface guidelines
5. Compliance with BMPs, siting requirements and design criteria

Construction of the proposed Project would have no impact on any of the covered species included in the WRCMSHCP and the Project does not require an ITP. The BSA does not contain riparian/riverine areas or vernal pools, there are no narrow endemic plant species, and it is not within the urban/wildlands interface guidelines. The Project will incorporate BMPs as part of the CGP under the NPDES (AMM-4). As part of pre-construction training (AMM-2), workers will be trained on measures to address stormwater pollution.

Permanent Impacts

The BSA is not in proximity to WRCMSHCP conservation areas, and therefore does not have the potential to result in edge effects (effects of development on adjacent habitat areas). The Project does not conflict with target conservation acreages within the WRCMSHCP. Permanent Project features, maintenance, and operations, therefore, would not conflict with the WRCMSHCP.

The Project, including all Design Options, is in compliance with the WRCMSHCP. No further coordination is required with the Western Riverside County Regional Conservation Authority. The Project would have no impact with respect to conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCPs.

Temporary and permanent impacts would not vary with Design Option. The Project would have no impact with respect to conflicts with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCPs.

6.2.6 Invasive Species

This section addresses if the Project would conflict with implementation of EO 13112.

Transportation facilities provide ample opportunities for invasive species to establish and spread. Invasive species can be transported by vehicles or moved site to site during spraying and mowing operations. Seeds can be introduced inadvertently during construction from contaminated equipment or construction materials (e.g., mulch, imported soil or gravel, sod). Clearing, grubbing, and earthwork in areas with invasive species can spread seeds and propagules (vegetative structures that can become detached from a plant and give rise to a new plant). In erosion control, landscape, or wildflower projects some invasive plant species might be planted deliberately. Also, invasive species can be included in seed mixtures or construction materials, and wind erosion can transport invasive seeds off-site.

The California Invasive Plant Council Invasive Plant Inventory (2020) is based on information submitted by members, land managers, botanists, and researchers throughout the state as well as published sources. The inventory highlights nonnative plants that are serious problems in wildlands (i.e., natural areas that support native ecosystems). The Invasive Plant Inventory categorizes plants as high, moderate, or limited based on the species' negative ecological impact. Plants categorized as "high" have severe ecological impacts; "moderate" have substantial and apparent, but generally not severe, ecological impacts; and "limited" are invasive, but their ecological impacts are minor.

Temporary Impacts

The Project would control exotic and invasive species to the maximum extent practicable with the implementation of avoidance and minimization measures described below. Pre-construction training (WEAT) will review site measures to limit propagation of invasive species. Implementation of dust control BMPs as part of the SWPPP will reduce spread of pollen of invasive species.

European starlings, house sparrows, feral cats (*Felis catus*), Norway rats (*Rattus norvegicus*), and other invasive animal species commonly occur within urban areas and are destructive to native wildlife. By minimizing food-related waste on the construction site, the Project would minimize the use of the site by invasive wildlife. With the incorporation of avoidance and minimization measures, the Project would comply with EO 13112.

Permanent Impacts

The proposed Project is not expected to have any permanent impacts as project operations and maintenance would not affect the spread of invasive species.

Avoidance, Minimization and Mitigation Measures

Exotic and invasive plants will be controlled to the maximum extent practicable. Measures to reduce spread of invasive species will include:

- If species ranked by the California Invasive Plant Council as moderate- or high-priority invasive weeds are disturbed or removed during construction-related activities, the contractor will contain the plant material and dispose of it in a manner that will not promote

the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with a local native seed mix. If seeding is not possible, the area will be covered to the extent practicable with heavy, black plastic solarization material until the end of the project. The Project will be managed to reduce and minimize the propagation of invasive weeds. Staging and storage of equipment will be done in weed free areas to the extent feasible to limit exposure of seeds, and noxious weeds propagules from spreading to sensitive areas in the Project.

- Soil used in landscaping will be weed free, where available.
- Project landscaping will not use species that are rated on the California Invasive Plant Council Inventory as Watch, Alert, Moderate, or High as these species have the potential for severe ecological impacts (CAL-IPC, 2020).
- During construction, all food-related waste will be disposed of in closed containers and regularly removed from the job site.

The project will also implement the following measures:

- WEAT (described in Section 6.2.1).
- Implementation of a SWPPP, obtain project coverage under the CGP, and comply with NPDES and Section 402 of the CWA (described in Section 6.2.2).

CEQA/NEPA Conclusions

Temporary and permanent impacts would not vary with Design Option. The proposed Project would have no impact on the spread of invasive species and would comply with EO 13112.

6.2.7 Cumulative Impacts

Cumulative impacts arise due to the linking of impacts from past, current, and reasonably foreseeable future actions in the region. Future development activities in the City of Riverside will result in impacts on the same habitat types and species that will be affected by the Project. The Build Alternative, in combination with other projects in the area and other activities that impact the species that are affected under the Build Alternative, could contribute to cumulative effects on special-status species, for example by removal of bat roosts or nesting bird habitat. Other projects in the area include both development and maintenance projects that could adversely affect these species and restoration projects that will benefit these species.

The cumulative impact on biological resources resulting from development under the Build Alternative in combination with other projects in the larger region would be dependent on the relative contribution of these impacts to biological resources compared to the relative benefit of impact AMMs prescribed by planning documents, mitigation measures, and permit requirements for each project; and compensatory mitigation and proactive conservation measures associated with each project. In the absence of such AMMs, compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur.

However, the WRCMSHCP contains conservation measures that would benefit biological resources, as well as measures to avoid, minimize, and mitigate impacts on these resources. Many projects in the region that impact resources similar to those impacted by the Build Alternative will be covered activities under the WRCMSHCP and will mitigate impacts on sensitive habitats and many special-status species through that program, which will require payment of fees for habitat restoration.

Further, the Build Alternative would implement a number of BMPs, avoidance, and minimization measures to reduce impacts on both common and special-status species, as described above.

Thus, provided that this Build Alternative successfully incorporates the AMMs and BMPs described above, the Build Alternative will not contribute to substantial cumulative impacts on biological resources.

7.0 Conclusions and Regulatory Determination

The proposed Project, including the parking lot design options, would occur within an existing rail station and neighboring industrial development in urbanized downtown Riverside. There are limited biological resources within and near the Project. With the implementation of the six proposed AMMs, the Project would have a less than significant or no impact on different types of biological resources.

Numerous bird species protected under the MBTA and the FGC are likely to nest in structures and vegetation in the BSA. To protect nesting birds, pre-construction nesting bird surveys will be conducted by a qualified biologist during the typical nesting season, February 1 through September 30. If an active nest is found, the biologist will establish protective buffers around the nests, which will remain in place until it is determined that the nest is no longer active. A WEAT will be conducted to train all on-site workers to identify sensitive environmental resources and how to avoid impacting them.

Bats could roost in structures and vegetation within the project footprint. Pre-construction surveys will be conducted by a qualified biologist to determine if roosting bats are present prior to the removal of trees or structures that potentially provide suitable roosting habitat. If roosting bats are discovered in or near active construction, a protective buffer zone will be established by the biologist. Avoidance measures will be implemented following current protocol from CDFW.

Potential indirect impacts could occur to offsite special-status plants, riparian areas, and sensitive natural communities through changes to water quality. With the incorporation of stormwater and water quality BMPs, the Project would not indirectly impact regulated waters, downstream riparian areas or sensitive habitats. No 404 permit would be required from USACE and no 401 certification or WDRs would be required from the SWRCB and RWQCB.

The proposed Project would also implement measures to limit the spread of invasive species, in compliance with EO 13112.

The proposed Project and parking lot design options will have no effect on state and federally listed species or their habitats as identified in Table 5-2. No adverse modification to any critical habitat or EFH will occur as a result of the project activities. No further consultation with USFWS or NMFS is required. No ITP would be required from CDFW.

With the incorporation of AMMs for bats and birds, BMPs to address stormwater quality, and measures to limit the spread of invasive species, the proposed Project would have a less than significant or no impact on these types of biological resources. No mitigation is proposed.

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Appendix A. U.S. Fish and Wildlife Service Species List

United States Department of the Interior

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

In Reply Refer To: September 25, 2020
Consultation Code: 08ECAR00-2020-SLI-1620
Event Code: 08ECAR00-2020-E-03772
Project Name: Riverside Downtown Station Improvements Project

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 08ECAR00-2020-SLI-1620

Event Code: 08ECAR00-2020-E-03772

Project Name: Riverside Downtown Station Improvements Project

Project Type: TRANSPORTATION

Project Description: The Riverside County Transportation Commission (RCTC) and Metrolink propose to improve the Riverside-Downtown Station Mile Post (MP) 9.9 to MP 10.2 on the Burlington Northern Santa Fe (BNSF) San Bernardino Subdivision located just east of State Route (SR) 91 and a short distance from the SR 60 in the City and County of Riverside, California. Proposed improvements include construction of an additional passenger loading platform, the extension of the existing pedestrian overcrossing and additional elevator and associated tracks which would allow for two trains to service the station off the BNSF mainline. The proposed track would be required to connect and integrate into the existing station layover tracks on the east side to improve train meet times without impacting BNSF operations. The project would also provide additional parking and improved vehicular traffic circulation on the east side of the station.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.97593940188615N117.36833914791737W

Counties: Riverside, CA

Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on this species list.

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

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

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

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

Mammals

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

Birds

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

Fishes

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

Crustaceans

NAME	STATUS
Riverside Fairy Shrimp *Streptocephalus woottoni* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8148	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Nevin's Barberry *Berberis nevinii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8025	Endangered
San Diego Ambrosia *Ambrosia pumila* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8287	Endangered
Santa Ana River Woolly-star *Eriastrum densifolium ssp. sanctorum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6575	Endangered
Spreading Navarretia *Navarretia fossalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened
Thread-leaved Brodiaea *Brodiaea filifolia* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6087	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix B. National Marine Fisheries Service Species List

Quad Name **Riverside East**
Quad Number **33117-H3**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Riverside West**
Quad Number **33117-H4**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Appendix C. California Natural Diversity Database Search Results

Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Fontana (3411714) OR San Bernardino South (3411713) OR Redlands (3411712) OR Riverside East (3311783) OR Riverside West (3311784) OR Sunnymead (3311782) OR Lake Mathews (3311774) OR Steele Peak (3311773) OR Perris (3311772))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAABF02020	***Spea hammondii*** western spadefoot	None	None	G3	S3	SSC
AAABH01330	***Rana muscosa*** southern mountain yellow-legged frog	Endangered	Endangered	G1	S1	WL
ABNKC01010	***Pandion haliaetus*** osprey	None	None	G5	S4	WL
ABNKC06010	***Elanus leucurus*** white-tailed kite	None	None	G5	S3S4	FP
ABNKC10010	***Haliaeetus leucocephalus*** bald eagle	Delisted	Endangered	G5	S3	FP
ABNKC12040	***Accipiter cooperii*** Cooper's hawk	None	None	G5	S4	WL
ABNKC19070	***Buteo swainsoni*** Swainson's hawk	None	Threatened	G5	S3	
ABNKC19120	***Buteo regalis*** ferruginous hawk	None	None	G4	S3S4	WL
ABNKD06030	***Falco columbarius*** merlin	None	None	G5	S3S4	WL
ABNME01010	***Coturnicops noveboracensis*** yellow rail	None	None	G4	S1S2	SSC
ABNME03041	***Laterallus jamaicensis coturniculus*** California black rail	None	Threatened	G3G4T1	S1	FP
ABNRB02022	***Coccyzus americanus occidentalis*** western yellow-billed cuckoo	Threatened	Endangered	G5T2T3	S1	
ABNSB10010	***Athene cunicularia*** burrowing owl	None	None	G4	S3	SSC
ABNSB13010	***Asio otus*** long-eared owl	None	None	G5	S3?	SSC
ABPAE33043	***Empidonax traillii extimus*** southwestern willow flycatcher	Endangered	Endangered	G5T2	S1	
ABPAT02011	***Eremophila alpestris actia*** California horned lark	None	None	G5T4Q	S4	WL
ABPBJ08081	***Polioptila californica californica*** coastal California gnatcatcher	Threatened	None	G4G5T2Q	S2	SSC
ABPBR01030	***Lanius ludovicianus*** loggerhead shrike	None	None	G4	S4	SSC

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ABPBW01114	***Vireo bellii pusillus*** least Bell's vireo	Endangered	Endangered	G5T2	S2	
ABPBX03010	***Setophaga petechia*** yellow warbler	None	None	G5	S3S4	SSC
ABPBX24010	***Icteria virens*** yellow-breasted chat	None	None	G5	S3	SSC
ABPBX91091	***Aimophila ruficeps canescens*** southern California rufous-crowned sparrow	None	None	G5T3	S3	WL
ABPBX97021	***Artemisiospiza belli belli*** Bell's sage sparrow	None	None	G5T2T3	S3	WL
ABPBXB0020	***Agelaius tricolor*** tricolored blackbird	None	Threatened	G2G3	S1S2	SSC
ABPBY06100	***Spinus lawrencei*** Lawrence's goldfinch	None	None	G3G4	S3S4	
AFCHA0209J	***Oncorhynchus mykiss irideus pop. 10*** steelhead - southern California DPS	Endangered	None	G5T1Q	S1	
AFCJB13120	***Gila orcuttii*** arroyo chub	None	None	G2	S2	SSC
AFCJB3705K	***Rhinichthys osculus ssp. 3*** Santa Ana speckled dace	None	None	G5T1	S1	SSC
AFCJC02190	***Catostomus santaanae*** Santa Ana sucker	Threatened	None	G1	S1	
AMACC01020	***Myotis yumanensis*** Yuma myotis	None	None	G5	S4	
AMACC05070	***Lasiurus xanthinus*** western yellow bat	None	None	G5	S3	SSC
AMACC10010	***Antrozous pallidus*** pallid bat	None	None	G5	S3	SSC
AMACD02011	***Eumops perotis californicus*** western mastiff bat	None	None	G5T4	S3S4	SSC
AMACD04010	***Nyctinomops femorosaccus*** pocketed free-tailed bat	None	None	G4	S3	SSC
AMAEB03051	***Lepus californicus bennettii*** San Diego black-tailed jackrabbit	None	None	G5T3T4	S3S4	SSC
AMAFD01041	***Perognathus longimembris brevinasus*** Los Angeles pocket mouse	None	None	G5T1T2	S1S2	SSC
AMAFD03100	***Dipodomys stephensi*** Stephens' kangaroo rat	Endangered	Threatened	G2	S2	
AMAFD03143	***Dipodomys merriami parvus*** San Bernardino kangaroo rat	Endangered	Candidate Endangered	G5T1	S1	SSC
AMAFD05031	***Chaetodipus fallax fallax*** northwestern San Diego pocket mouse	None	None	G5T3T4	S3S4	SSC

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AMAFF06022	***Onychomys torridus ramona*** southern grasshopper mouse	None	None	G5T3	S3	SSC
AMAFF08041	***Neotoma lepida intermedia*** San Diego desert woodrat	None	None	G5T3T4	S3S4	SSC
AMAJF04010	***Taxidea taxus*** American badger	None	None	G5	S3	SSC
ARAAD02030	***Emys marmorata*** western pond turtle	None	None	G3G4	S3	SSC
ARACC01060	***Anniella stebbinsi*** Southern California legless lizard	None	None	G3	S3	SSC
ARACD01031	***Coleonyx variegatus abbotti*** San Diego banded gecko	None	None	G5T3T4	S1S2	SSC
ARACF12100	***Phrynosoma blainvillii*** coast horned lizard	None	None	G3G4	S3S4	SSC
ARACJ02060	***Aspidoscelis hyperythra*** orange-throated whiptail	None	None	G5	S2S3	WL
ARACJ02143	***Aspidoscelis tigris stejnegeri*** coastal whiptail	None	None	G5T5	S3	SSC
ARADB01017	***Arizona elegans occidentalis*** California glossy snake	None	None	G5T2	S2	SSC
ARADB10015	***Diadophis punctatus modestus*** San Bernardino ringneck snake	None	None	G5T2T3	S2?	
ARADB30033	***Salvadora hexalepis virgultea*** coast patch-nosed snake	None	None	G5T4	S2S3	SSC
ARADB36160	***Thamnophis hammondii*** two-striped gartersnake	None	None	G4	S3S4	SSC
ARADE02090	***Crotalus ruber*** red-diamond rattlesnake	None	None	G4	S3	SSC
ICBRA07010	***Streptocephalus woottoni*** Riverside fairy shrimp	Endangered	None	G1G2	S1S2	
IICOL02201	***Cicindela tranquebarica viridissima*** greenest tiger beetle	None	None	G5T1	S1	
IIDIP05021	***Rhaphiomidas terminatus abdominalis*** Delhi Sands flower-loving fly	Endangered	None	G1T1	S1	
IIHYM24480	***Bombus crotchii*** Crotch bumble bee	None	Candidate Endangered	G3G4	S1S2	
IIHYM71040	***Ceratochrysis longimala*** Desert cuckoo wasp	None	None	G1	S1	
IIHYM81010	***Neolarra alba*** white cuckoo bee	None	None	GH	SH	
IILEM2X090	***Carolella busckana*** Busck's gallmoth	None	None	G1G3	SH	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
IILEPK405L	***Euphydryas editha quino*** quino checkerspot butterfly	Endangered	None	G5T1T2	S1S2	

Record Count: 61

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Fontana (3411714) OR San Bernardino South (3411713) OR Redlands (3411712) OR Riverside East (3311783) OR Riverside West (3311784) OR Sunnymead (3311782) OR Lake Mathews (3311774) OR Steele Peak (3311773) OR Perris (3311772))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Alvin Meadow bedstraw *Galium californicum ssp. primum*	PDRUB0N0E6	None	None	G5T2	S2	1B.2
Brand's star phacelia *Phacelia stellaris*	PDHYD0C510	None	None	G1	S1	1B.1
bristly sedge *Carex comosa*	PMCYP032Y0	None	None	G5	S2	2B.1
California satintail *Imperata brevifolia*	PMPOA3D020	None	None	G4	S3	2B.1
chaparral ragwort *Senecio aphanactis*	PDAST8H060	None	None	G3	S2	2B.2
chaparral sand-verbena *Abronia villosa var. aurita*	PDNYC010P1	None	None	G5T2?	S2	1B.1
Coulter's goldfields *Lasthenia glabrata ssp. coulteri*	PDAST5L0A1	None	None	G4T2	S2	1B.1
Davidson's saltscale *Atriplex serenana var. davidsonii*	PDCHE041T1	None	None	G5T1	S1	1B.2
Gambel's water cress *Nasturtium gambelii*	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Horn's milk-vetch *Astragalus hornii var. hornii*	PDFAB0F421	None	None	GUT1	S1	1B.1
little mousetail *Myosurus minimus ssp. apus*	PDRAN0H031	None	None	G5T2Q	S2	3.1
long-spined spineflower *Chorizanthe polygonoides var. longispina*	PDPGN040K1	None	None	G5T3	S3	1B.2
Los Angeles sunflower *Helianthus nuttallii ssp. parishii*	PDAST4N102	None	None	G5TX	SX	1A
many-stemmed dudleya *Dudleya multicaulis*	PDCRA040H0	None	None	G2	S2	1B.2
marsh sandwort *Arenaria paludicola*	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
mesa horkelia *Horkelia cuneata var. puberula*	PDROS0W045	None	None	G4T1	S1	1B.1
Munz's onion *Allium munzii*	PMLIL022Z0	Endangered	Threatened	G1	S1	1B.1
Nevin's barberry *Berberis nevinii*	PDBER060A0	Endangered	Endangered	G1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Palmer's grapplinghook *Harpagonella palmeri*	PDBOR0H010	None	None	G4	S3	4.2
Parish's brittlescale *Atriplex parishii*	PDCHE041D0	None	None	G1G2	S1	1B.1
Parish's bush-mallow *Malacothamnus parishii*	PDMAL0Q0C0	None	None	GXQ	SX	1A
Parish's desert-thorn *Lycium parishii*	PDSOL0G0D0	None	None	G4	S1	2B.3
Parish's gooseberry *Ribes divaricatum var. parishii*	PDGRO020F3	None	None	G5TX	SX	1A
Parry's spineflower *Chorizanthe parryi var. parryi*	PDPGN040J2	None	None	G3T2	S2	1B.1
Payson's jewelflower *Caulanthus simulans*	PDBRA0M0H0	None	None	G4	S4	4.2
Peruvian dodder *Cuscuta obtusiflora var. glandulosa*	PDCUS01111	None	None	G5T4?	SH	2B.2
Plummer's mariposa-lily *Calochortus plummerae*	PMLIL0D150	None	None	G4	S4	4.2
prairie wedge grass *Sphenopholis obtusata*	PMPOA5T030	None	None	G5	S2	2B.2
Pringle's monardella *Monardella pringlei*	PDLAM180J0	None	None	GX	SX	1A
Robinson's pepper-grass *Lepidium virginicum var. robinsonii*	PDBRA1M114	None	None	G5T3	S3	4.3
salt marsh bird's-beak *Chloropyron maritimum ssp. maritimum*	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
salt spring checkerbloom *Sidalcea neomexicana*	PDMAL110J0	None	None	G4	S2	2B.2
San Bernardino aster *Symphyotrichum defoliatum*	PDASTE80C0	None	None	G2	S2	1B.2
San Diego ambrosia *Ambrosia pumila*	PDAST0C0M0	Endangered	None	G1	S1	1B.1
San Jacinto Valley crownscale *Atriplex coronata var. notatior*	PDCHE040C2	Endangered	None	G4T1	S1	1B.1
Santa Ana River woollystar *Eriastrum densifolium ssp. sanctorum*	PDPLM03035	Endangered	Endangered	G4T1	S1	1B.1
slender-horned spineflower *Dodecahema leptoceras*	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
smooth tarplant *Centromadia pungens ssp. laevis*	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
spreading navarretia *Navarretia fossalis*	PDPLM0C080	Threatened	None	G2	S2	1B.1

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
thread-leaved brodiaea *Brodiaea filifolia*	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1
white rabbit-tobacco *Pseudognaphalium leucocephalum*	PDAST440C0	None	None	G4	S2	2B.2
woven-spored lichen *Texosporium sancti-jacobi*	NLTEST7980	None	None	G3	S2	3
Wright's trichocoronis *Trichocoronis wrightii var. wrightii*	PDAST9F031	None	None	G4T3	S1	2B.1

Record Count: 43

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Fontana (3411714) OR San Bernardino South (3411713) OR Redlands (3411712) OR Riverside East (3311783) OR Riverside West (3311784) OR Sunnymead (3311782) OR Lake Mathews (3311774) OR Steele Peak (3311773) OR Perris (3311772))
 AND Taxonomic Group IS (Dune OR Scrub OR Herbaceous OR Marsh OR Riparian OR Woodland OR Forest OR Alpine OR Inland Waters OR Marine OR Estuarine OR Riverine OR Palustrine)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Riversidian Alluvial Fan Sage Scrub *Riversidian Alluvial Fan Sage Scrub*	CTT32720CA	None	None	G1	S1.1	
Southern California Arroyo Chub/Santa Ana Sucker Stream *Southern California Arroyo Chub/Santa Ana Sucker Stream*	CARE2330CA	None	None	GNR	SNR	
Southern Coast Live Oak Riparian Forest *Southern Coast Live Oak Riparian Forest*	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest *Southern Cottonwood Willow Riparian Forest*	CTT61330CA	None	None	G3	S3.2	
Southern Riparian Forest *Southern Riparian Forest*	CTT61300CA	None	None	G4	S4	
Southern Riparian Scrub *Southern Riparian Scrub*	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland *Southern Sycamore Alder Riparian Woodland*	CTT62400CA	None	None	G4	S4	
Southern Willow Scrub *Southern Willow Scrub*	CTT63320CA	None	None	G3	S2.1	

Record Count: 8

Appendix D. California Native Plant Society Search Results

CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

52 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3411714, 3411713, 3411712, 3311784, 3311783, 3311782, 3311774 3311773 and 3311772;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	1B.1	S2	G5T2?
Allium munzii	Munz's onion	Alliaceae	perennial bulbiferous herb	Mar-May	1B.1	S1	G1
Ambrosia pumila	San Diego ambrosia	Asteraceae	perennial rhizomatous herb	Apr-Oct	1B.1	S1	G1
Arenaria paludicola	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	May-Aug	1B.1	S1	G1
Artemisia palmeri	San Diego sagewort	Asteraceae	perennial deciduous shrub	(Feb)May-Sep	4.2	S3?	G3?
Asplenium vespertinum	western spleenwort	Aspleniaceae	perennial rhizomatous herb	Feb-Jun	4.2	S4	G4
Astragalus hornii var. hornii	Horn's milk-vetch	Fabaceae	annual herb	May-Oct	1B.1	S1	G4G5T1T2
Atriplex coronata var. notatior	San Jacinto Valley crownscale	Chenopodiaceae	annual herb	Apr-Aug	1B.1	S1	G4T1
Atriplex pacifica	South Coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	1B.2	S2	G4
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	1B.1	S1	G1G2
Atriplex serenana var. davidsonii	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S1	G5T1

Berberis nevinii	Nevin's barberry	Berberidaceae	perennial evergreen shrub	(Feb)Mar-Jun	1B.1	S1	G1
Brodiaea filifolia	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	Mar-Jun	1B.1	S2	G2
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	2B.1	S2	G5
Caulanthus simulans	Payson's jewelflower	Brassicaceae	annual herb	(Feb)Mar-May(Jun)	4.2	S4	G4
Centromadia pungens ssp. laevis	smooth tarplant	Asteraceae	annual herb	Apr-Sep	1B.1	S2	G3G4T2
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct (Nov)	1B.2	S1	G4?T1
Chorizanthe leptotheca	Peninsular spineflower	Polygonaceae	annual herb	May-Aug	4.2	S3	G3
Chorizanthe parryi var. parryi	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S2	G3T2
Chorizanthe polygonoides var. longispina	long-spined spineflower	Polygonaceae	annual herb	Apr-Jul	1B.2	S3	G5T3
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	2B.2	SH	G5T4?
Cylindropuntia californica var. californica	snake cholla	Cactaceae	perennial stem succulent	Apr-May	1B.1	S1	G3T2
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov(Dec)	4.2	S4	G4
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S1	G1
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G2
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Polemoniaceae	perennial herb	Apr-Sep	1B.1	S1	G4T1
Galium californicum ssp. primum	Alvin Meadow bedstraw	Rubiaceae	perennial herb	May-Jul	1B.2	S2	G5T2
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb	Mar-May	4.2	S3	G4
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	Asteraceae	perennial rhizomatous herb	Aug-Oct	1A	SH	G5TH
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul (Sep)	1B.1	S1	G4T1
		Poaceae		Sep-May	2B.1	S3	G4

Imperata brevifolia	California satintail		perennial rhizomatous herb				
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	4.3	S3	G5T3
Malacothamnus parishii	Parish's bush-mallow	Malvaceae	perennial deciduous shrub	Jun-Jul	1A	SX	GXQ
Microseris douglasii ssp. platycarpha	small-flowered microseris	Asteraceae	annual herb	Mar-May	4.2	S4	G4T4
Monardella pringlei	Pringle's monardella	Lamiaceae	annual herb	May-Jun	1A	SX	GX
Myosurus minimus ssp. apus	little mousetail	Ranunculaceae	annual herb	Mar-Jun	3.1	S2	G5T2Q
Nasturtium gambelii	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	1B.1	S1	G1
Navarretia fossalis	spreading navarretia	Polemoniaceae	annual herb	Apr-Jun	1B.1	S2	G2
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	1B.1	S1	G1
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)	2B.2	S2	G4
Ribes divaricatum var. parishii	Parish's gooseberry	Grossulariaceae	perennial deciduous shrub	Feb-Apr	1A	SX	G5TX
Romneya coulteri	Coulter's matilija poppy	Papaveraceae	perennial rhizomatous herb	Mar-Jul (Aug)	4.2	S4	G4
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr (May)	2B.2	S2	G3
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	2B.2	S2	G5
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov (Dec)	1B.2	S2	G2
Texosporium sancti-jacobi	woven-spored lichen	Caliciaceae	crustose lichen (terricolous)		3	S1	G3
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	Asteraceae	annual herb	May-Sep	2B.1	S1	G4T3

Suggested Citation

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Updated USFWS Information for Planning and Consultation (IPaC) Database Record Search

Accessed 9/9/2021

IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Riverside County, California

Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

http://www.fws.gov/carlsbad/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

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

Birds

NAME	STATUS
Coastal California Gnatcatcher Polioptila californica californica Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo Vireo bellii pusillus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher Empidonax traillii extimus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/6749	Endangered

Fishes

NAME	STATUS
Santa Ana Sucker Catostomus santaanae There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/3785	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS

Riverside Fairy Shrimp Streptocephalus woottoni — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/8148

Vernal Pool Fairy Shrimp Branchinecta lynchi — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/498

Flowering Plants

NAME	STATUS

Nevin's Barberry Berberis nevinii — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/8025

San Diego Ambrosia Ambrosia pumila — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/8287

Santa Ana River Woolly-star Eriastrum densifolium ssp. sanctorum — Endangered
Wherever found
No critical habitat has been designated for this species.
http://ecos.fws.gov/ecp/species/6575

Spreading Navarretia Navarretia fossalis — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/1334

Thread-leaved Brodiaea Brodiaea filifolia — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/6087

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered

species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA

	SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA http://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. http://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch Carduelis lawrencei This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Nuttall's Woodpecker Picoides nuttallii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA http://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
http://ecos.fws.gov/ecp/species/3914

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

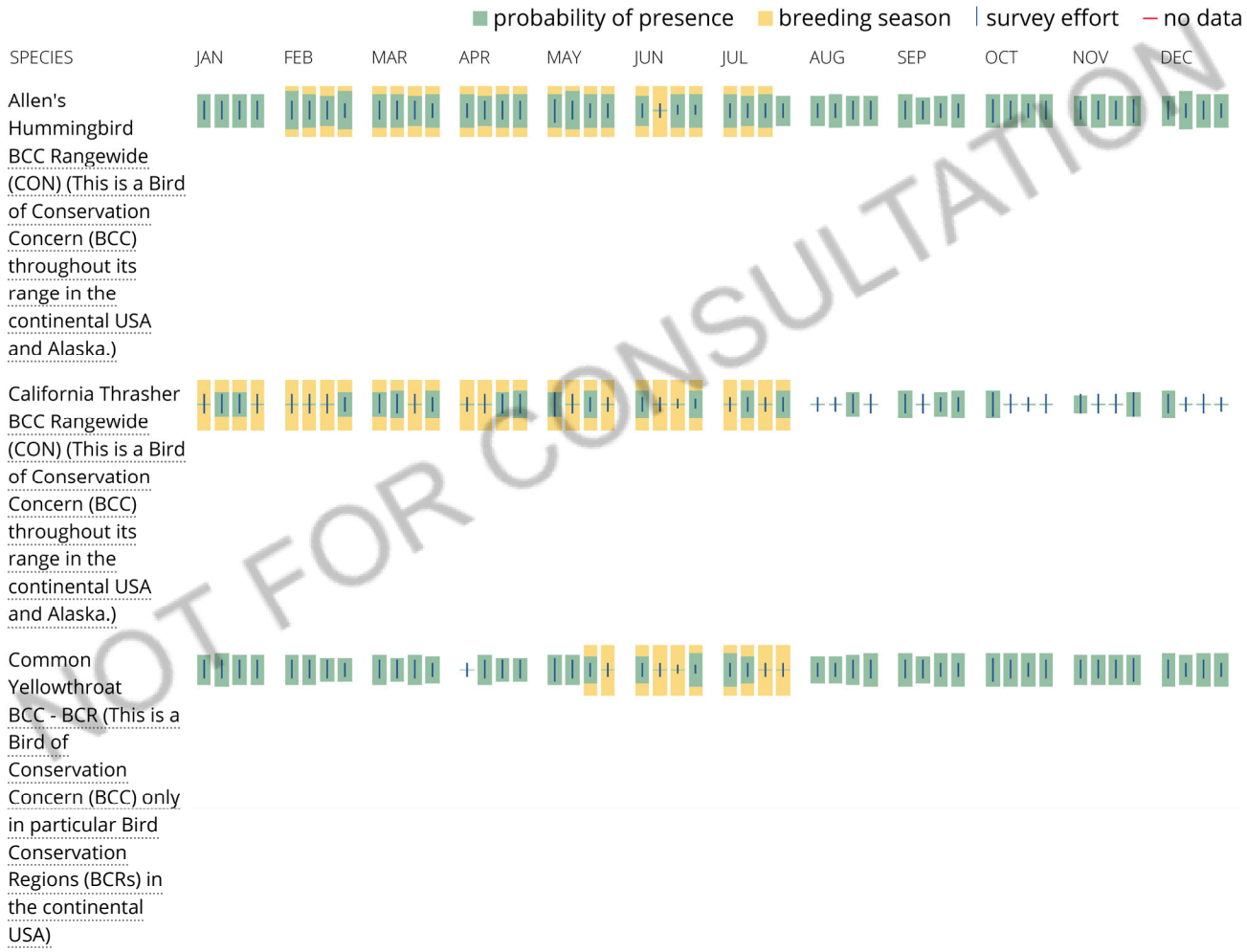
Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

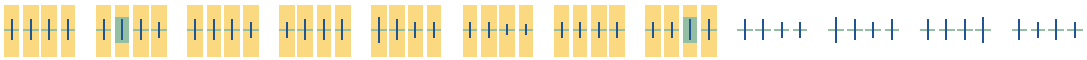
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

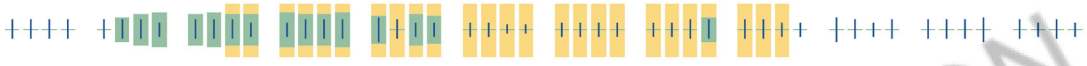
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



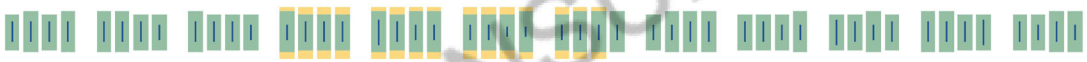
Golden Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Lawrence's Goldfinch BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

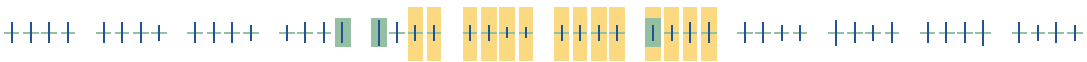


Nuttall's Woodpecker BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

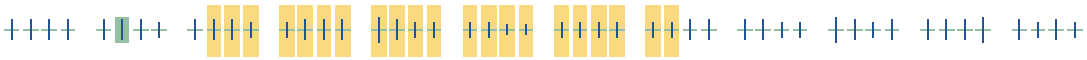


Oak Titmouse BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Olive-sided Flycatcher BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Wrentit
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R4SBCx

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.