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- Appendix A: Literature Review
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ACRONYMS

BSA	biological study area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHSRA	California High-Speed Rail Authority
CNPS	California Native plant Society
CP	control point
CRPR	California Rare Plant Ranking
EIS	environmental impact statement
EO	Executive Order
FRA	Federal Railroad Administration
HSR	high-speed rail
LAUS	Los Angeles Union Station
Link US	Link Union Station
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
MOU	memorandum of understanding
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
Project	Link Union Station Project
SCAG	Southern California Association of Governments
SSC	Species of Special Concern
U.S.	United States
US-101	United States Highway 101
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service

ES.0 Executive Summary

The Los Angeles County Metropolitan Transportation Authority (Metro), as the owner of Los Angeles Union Station (LAUS), is proposing the infrastructure improvements associated with the Link Union Station Project (Project or proposed action) to address existing capacity constraints at LAUS. This Natural Environment Study (Minimal Impacts) presents the affected environment and includes an evaluation of potential effects on federally and state protected biological resources that may be utilizing the biological study area (BSA). For the purposes of this study, the BSA corresponds to the Project footprint for the Build Alternative, where Project-related infrastructure is proposed at and within the vicinity of LAUS.

This Natural Environment Study (Minimal Impacts) identifies potential effects based on literature searches and a general biological resources survey conducted in 2015. A reconnaissance survey was conducted in February 2023 and updated literature search was also performed in September 2023 to verify existing conditions. Based on the results of the reconnaissance-level biological resources survey and habitat assessment performed to document existing conditions, the BSA consists primarily of developed land uses, ornamental plantings, and disturbed habitat.

Implementation of the Build Alternative would result in no effect on any federally listed or candidate plant or animal species of special concern, areas potentially subject to United States Army Corps of Engineers (USACE) jurisdiction, habitat connectivity, or wildlife corridors. Implementation of the Build Alternative may result in short-term, adverse effects on two state-designated species of special concern (western mastiff bat and western yellow bat), nesting birds provided protection by the Migratory Bird Treaty Act (MBTA), if present in the BSA, and trees protected by local ordinances.

Mitigation measures in the form of preconstruction surveys for roosting bats, nesting birds, and protected trees are proposed to minimize potential adverse effects on biological resources. Upon implementation of mitigation measures, no compensatory mitigation is anticipated and adverse effects on biological resources would not occur.

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1.0 Introduction

The Los Angeles County Metropolitan Transportation Authority (Metro), as the owner of Los Angeles Union Station (LAUS), is proposing the infrastructure improvements associated with the Link Union Station (Link US) Project (Project or proposed action) to address existing capacity constraints at LAUS. For the purposes of the National Environmental Policy Act (NEPA), Metro is serving as the local Project sponsor and joint lead agency.

Pursuant to 23 United States Code (USC) Section 327 and a memorandum of understanding (MOU) between the Federal Railroad Administration (FRA) and the State of California, effective July 23, 2019, under a program known as NEPA Assignment, the California High-Speed Rail Authority (CHSRA) is responsible for the federal review and approval of environmental documents for projects on the high-speed rail (HSR) system and other passenger rail projects that directly connect to the HSR system, including the Link US Project. For the purposes of the environmental impact statement (EIS) being prepared, CHSRA is serving as the federal lead agency with NEPA responsibilities pursuant to the requirements of the NEPA Assignment MOU. CHSRA and Metro are preparing the EIS in compliance with NEPA (42 USC Section 4321 et seq.), the Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508), FRA's Procedures for Considering Environmental Impacts (FRA's Environmental Procedures) (*Federal Register* 64(101), 28545-28556, May 26, 1999), 23 USC Section 139, and the NEPA Assignment MOU.^{1, 2}

Pursuant to the MOU requirements between FRA and the State of California, FRA's Environmental Procedures are being used to determine environmental effects of the No Action Alternative and the Build Alternative.

Below is an overview of the purpose and need, the Project study area, the No Action Alternative, and the major components associated with the on-site infrastructure improvements proposed at and within the vicinity of LAUS that are associated with the Build Alternative considered in the EIS.

¹ While this environmental document was being prepared, FRA adopted new NEPA compliance regulations (23 CFR 771). Those regulations only apply to actions initiated after November 28, 2018. See 23 CFR 771.109(a)(4). Because this environmental document was initiated prior to that date, it remains subject to FRA's Environmental Procedures rather than the Part 771 regulations.

² The Council on Environmental Quality issued new regulations, effective April 20, 2022, updating the NEPA implementing procedures at 40 CFR Parts 1500–1508. However, because this environmental document was initiated prior to the effective date, it is not subject to the new regulations and CHSRA is relying on the regulations as they existed on the date of the initial Notice of Intent, May 31, 2016. Therefore, all citations to Council on Environmental Quality regulations in this environmental document refer to the 1978 regulations and the 1986 amendment, 51 *Federal Register* 15618 (April 25, 1986).

1.1 Purpose

The purpose of the proposed action is to increase the regional and intercity rail service capacity of LAUS and to improve schedule reliability at LAUS through the implementation of a run-through tracks configuration and elimination of the current stub end tracks configuration while preserving current levels of freight rail operations, accommodating the planned HSR system in Southern California, increasing the passenger/pedestrian capacity and enhancing the safety of LAUS through the implementation of a new passenger concourse, meeting the multi-modal transportation demands at LAUS.

1.2 Need

The need for the proposed action is generated by the forecasted increase in regional population and employment; implementation of federal, state, and regional transportation plans that provide for increased operational frequency for regional and intercity trains; and introduction of the planned HSR system in Southern California. Localized operational, safety, and accessibility upgrades in and around LAUS will be required to meet existing demand and future growth.

1.3 Project Location and Study Area

The Build Alternative consists of infrastructure improvements in Downtown Los Angeles in the vicinity of LAUS (Figure 1-1). LAUS is located at 800 Alameda Street in the City of Los Angeles, California. LAUS is bounded by United States Highway 101 (US-101) to the south, Alameda Street to the west, Cesar Chavez Avenue to the north, and Vignes Street to the east. The northern Project limit is at North Main Street (Mile Post 1.18) and the southern Project limit is in the vicinity of Control Point (CP) Olympic, south of Interstate 10 and Olympic Boulevard (Mile Post 142.70).

Figure 1-2 depicts the Project study area, which is generally used to characterize the affected environment, unless otherwise specified, and provide a geographic context for the existing and proposed infrastructure improvements at and within the vicinity of LAUS. The Project study area includes three main segments (Segment 1: Throat Segment, Segment 2: Concourse Segment, and Segment 3: Run-Through Segment). The existing conditions within each segment are summarized north to south below:

- **Segment 1: Throat Segment** – This segment, known as the LAUS throat, includes CP Chavez and the area north of the platforms at the LAUS rail yard, from North Main Street at the north to Cesar Chavez Avenue at the south. In the throat segment, all arriving and departing trains are required to traverse through a complex network of lead tracks, switches, and crossovers. Five lead tracks provide access into and out of the rail yard, except for one location near the Vignes Street Bridge, where it reduces to four lead tracks. Currently, special track work consisting of multiple turnouts and double-slip switches are used in the throat to direct trains into and out of the appropriate assigned terminal platform tracks. The Garden Tracks (stub-end tracks where private train cars

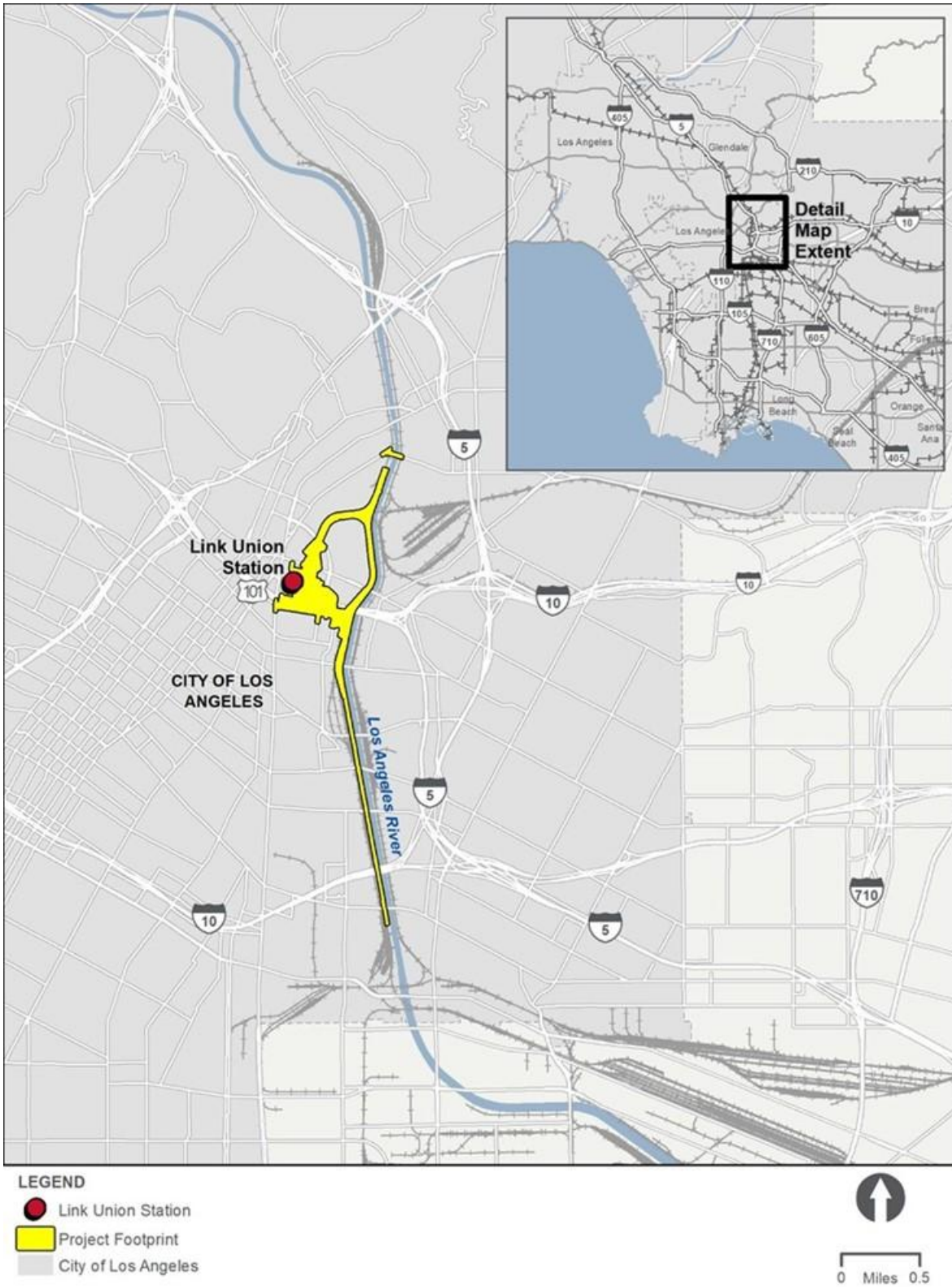
are currently stored) are also located just north of the platforms. Land uses in the vicinity of the throat segment are residential, industrial, and institutional.

- **Segment 2: Concourse Segment** – This segment is between Cesar Chavez Avenue and US-101 and includes LAUS, the rail yard, the East Portal Building, the baggage handling building with associated parking areas and access roads, the ticketing/waiting halls, and the 28-foot-wide pedestrian passageway with connecting ramps and stairways below the rail yard. Land uses in the vicinity of the concourse segment are residential, commercial, and public.
- **Segment 3: Run-Through Segment** – This segment is south of LAUS and extends east to west from Alameda Street to the west bank of the Los Angeles River and north to south from Keller Yard to CP Olympic. This segment includes US-101, the Commercial Street/Ducommun Street corridor, Metro Red and Purple Lines Maintenance Yard (Division 20 Rail Yard), BNSF Railway West Bank Yard, Keller Yard, the main line tracks on the west bank of the Los Angeles River from Keller Yard to CP Olympic, and the Amtrak lead track connecting the main line tracks with Amtrak’s Los Angeles Maintenance Facility in the vicinity of 8th Street. Land uses in the vicinity of the run-through segment are primarily industrial and manufacturing.

The Project study area has a dense street network ranging from major highways to local city streets. The roadways within the Project study area include the El Monte Busway, US-101, Bolero Lane, Leroy Street, Bloom Street, Cesar Chavez Avenue, Commercial Street, Ducommun Street, Jackson Street, East Temple Street, Banning Street, First Street, Alameda Street, Garey Street, Vignes Street, Main Street, Aliso Street, Avila Street, Bauchet Street, and Center Street.

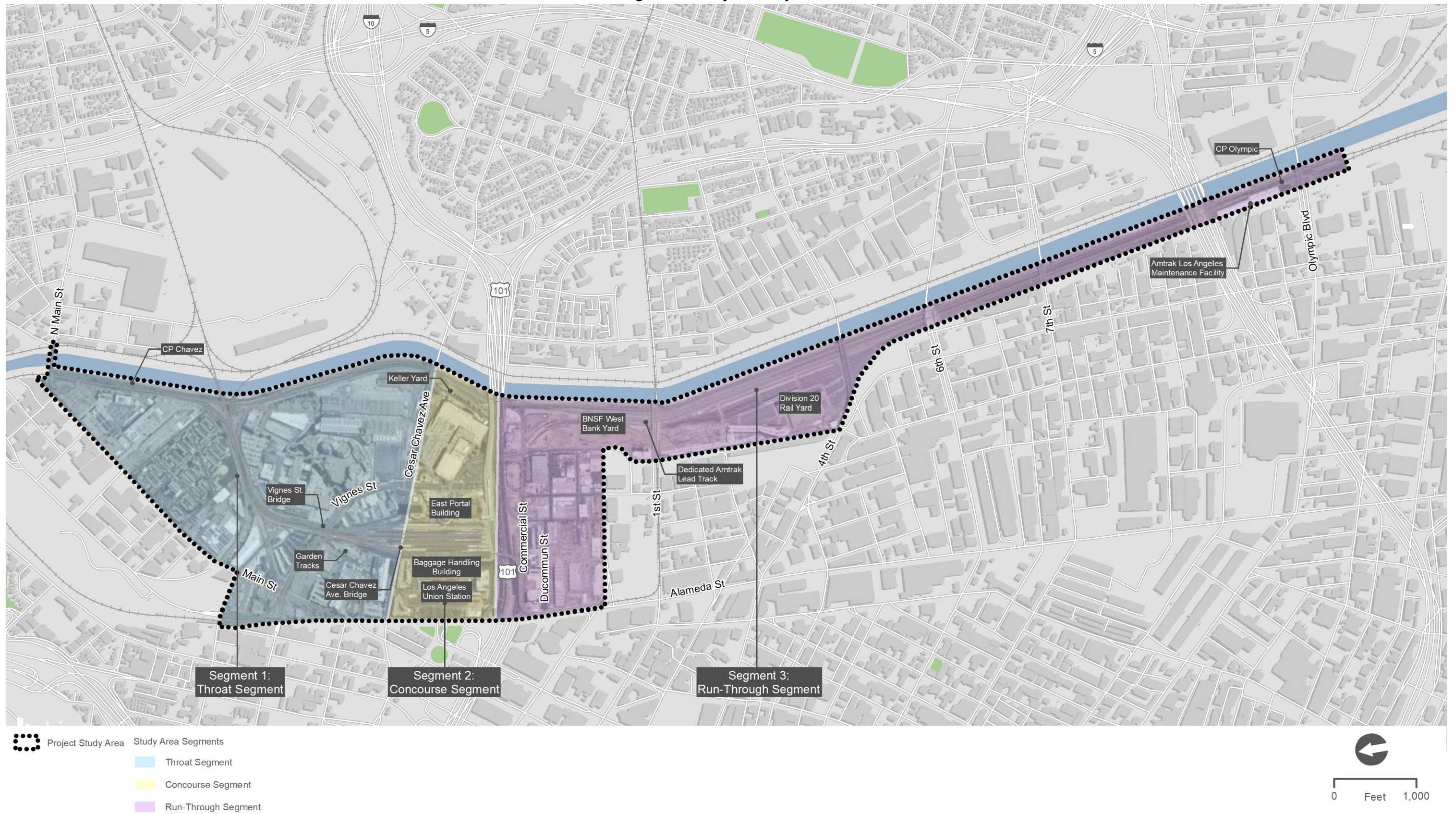
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Figure 1-1. Project Location and Regional Vicinity



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Figure 1-2. Project Study Area



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1.4 Project Alternatives

The EIS includes an evaluation of the No Action Alternative and one build alternative (Build Alternative). The Build Alternative would include, but not be limited to, new lead tracks north of LAUS (Segment 1: Throat Segment), an elevated throat and rail yard with concourse-related improvements at LAUS (Segment 2: Concourse Segment), and 10 run-through tracks south of LAUS (Segment 3: Run-Through Segment).

1.4.1 No Action Alternative

NEPA (40 CFR 1502.14(d)) requires federal agencies to include an analysis of “the alternative of no action.” For NEPA purposes, the No Action Alternative is the baseline against which the effects of implementing the Build Alternative is evaluated against to determine the extent of environmental and community effects. For the No Action Alternative, the baseline year is 2016, and the horizon year is 2040.

The No Action Alternative represents the future conditions that would occur if the proposed infrastructure improvements and the operational capacity enhancements at LAUS were not implemented. The No Action Alternative reflects the foreseeable effects of growth planned for the area in conjunction with other existing, planned, and reasonably foreseeable projects and infrastructure improvements in the Los Angeles area, as identified in planning documents prepared by Southern California Association of Governments (SCAG), Metro, and/or Metrolink, including the *2023 Federal Transportation Improvement Program (SCAG 2023)*, *Final 2008 Regional Comprehensive Plan (SCAG 2008)*, and the *2020 Regional Transportation Plan/Sustainable Communities Strategy: Connect SoCal (SCAG 2020)*.

Conditions in the Project study area would remain similar to the existing condition, as described below:

- **Segment 1: Throat Segment** – Trains would continue to operate on five lead tracks that do not currently accommodate the planned HSR system. The tracks north of LAUS would remain at the current elevation, and the Vignes Street Bridge and Cesar Chavez Avenue Bridge would remain in place.
- **Segment 2: Concourse Segment** – LAUS would not be transformed from a stub-end tracks station into a run-through tracks station, and the 28-foot-wide pedestrian passageway would be retained in its current configuration. No modifications to the existing passenger circulation routes or addition of vertical circulation elements (escalators and elevators) at LAUS would occur.
- **Segment 3: Run-Through Segment** – Commercial Street would remain in its existing configuration, and implementation of active transportation improvements would likely be implemented along Center Street in concert with the *Connect US Action Plan (Metro 2015)*. No modifications to the BNSF West Bank Yard would occur.

1.4.2 Build Alternative

The key components associated with the Build Alternative are summarized north to south below:

- **Segment 1: Throat Segment (lead tracks and throat track reconstruction)** – The Build Alternative includes subgrade and structural improvements in Segment 1 of the Project study area (throat segment) to increase the elevation of the tracks leading to the rail yard. The Build Alternative includes the addition of one new lead track in the throat segment for a total of six lead tracks to facilitate enhanced operations for regional/intercity rail trains (Metrolink/Amtrak) and operations for HSR trains within a shared track alignment. Regional/intercity and HSR trains would share the two western lead tracks in the throat segment. The existing railroad bridges in the throat segment at Vignes Street and Cesar Chavez Avenue would also be reconstructed. North of CP Chavez on the west bank of the Los Angeles River, the Build Alternative also includes safety improvements at the Main Street public at-grade railroad crossing (medians, restriping, signals, and pedestrian and vehicular gate systems) to facilitate future implementation of a quiet zone by the City of Los Angeles.
- **Segment 2: Concourse Segment (elevated rail yard and expanded passageway)** – The Build Alternative includes an elevated rail yard and expansion of the existing 28-foot-wide pedestrian passageway in Segment 2 of the Project study area (concourse segment). The rail yard would be elevated approximately 15 feet. New passenger platforms would be constructed on the elevated rail yard with associated vertical circulation elements (stairs, escalators, and elevators) to enhance safety elements and improve Americans with Disabilities Act accessibility. Platform 1, serving the Gold Line, would be lengthened, and elevated to optimize east to west passenger circulation. The pedestrian passageway would be expanded at the current grade to a 140-foot width to accommodate a substantial increase in passenger capacity with new functionally modern passenger amenities while providing points of safety to meet applicable California Building Code and National Fire Protection Association (NFPA) 130 Standards for Fixed Guideway Transit Systems. The expanded passageway and associated concourse improvements would facilitate enhanced passenger circulation and provide space for ancillary support functions (back-of-house uses, baggage handling, etc.), transit-serving retail, and office/commercial uses while creating an opportunity for an outdoor, community-oriented space with new plazas east and west of the elevated rail yard (East and West Plazas). Amtrak ticketing and baggage check-in services would be enhanced, and new baggage carousels would be constructed in a centralized location under the rail yard. A canopy would be constructed over the West Plaza up to 70 feet in height, and two design options are considered for canopies that would extend over the rail yard (Section 1.4.3).
- **Segment 3: Run-Through Segment (10 run-through tracks)** – The Build Alternative includes 10 new run-through tracks south of LAUS in Segment 3 of the Project study area (run-through segment). The Build Alternative includes common rail

infrastructure from LAUS to the west bank of the Los Angeles River (vicinity of First Street Bridge) to support run-through tracks for both regional/intercity rail trains and HSR trains. At the BNSF West Bank Yard, dedicated lead tracks for Amtrak trains and BNSF trains, in combination with implementation of common rail infrastructure would result in permanent loss of freight rail storage track capacity at the north end of BNSF West Bank Yard (5,500 track feet).

The Build Alternative would also require modifications to US-101 and local streets (including potential street closures and geometric modifications); improvements to railroad signal, positive train control, and communication systems; modifications to the Gold Line light rail platform and tracks; modifications to the main line tracks on the west bank of the Los Angeles River; modifications to the Amtrak lead track; addition of access roadways to the railroad right-of-way (ROW); land acquisitions; addition of utilities; utility relocations, replacements, and abandonments; and addition of drainage facilities/water quality improvements.

1.4.3 Rail Yard Canopy Design Options

Two design options for canopies over the elevated platforms in the rail yard are considered in conjunction with the concourse-related improvements as part of the Build Alternative.

- **Rail Yard Canopy Design Option 1 (individual canopies)** – This design option would include replacing the existing historic butterfly canopies with individual canopies above each platform. New individual canopies would extend up to 25 feet above each platform and would be similar in form to the existing butterfly canopies but sized to fit the widened and lengthened platforms. Platform lengths would vary between 450 and 1,445 feet. Platforms would be up to 30 feet wide.
- **Rail Yard Canopy Design Option 2 (grand canopy)** – This design option would include replacing the existing historic butterfly canopies with a large grand canopy that would extend up to 75 feet above the elevated rail yard platforms. The grand canopy would be up to 1,500 feet long and wide enough to provide cover over all elevated platforms in the rail yard.

1.5 Project Implementation Approach

The implementation of infrastructure improvements would generally occur in two main phases that are evaluated as scenario years in the EIS: the interim condition and the full build-out condition. The infrastructure improvements for each of these scenarios are described below.

1.5.1 Interim Condition (Phase A)

The interim condition (also referred to as Phase A) is when the run-through track infrastructure south of LAUS and the associated signal modifications, property acquisitions, and civil/structural improvements to facilitate new run-through service would be implemented. The interim condition does not include new lead tracks north of LAUS, or the elevated rail yard and new

concourse-related improvements at LAUS. The interim condition aligns with a construction completion date as early as 2026.

A summary of the proposed activities associated with the interim condition is provided below.

- Acquire properties south of LAUS within the Project footprint.
- Relocate utilities north and south of LAUS.
- Acquire a portion of the BNSF West Bank Yard (majority north of First Street) and remove 5,500 feet of existing storage tracks at BNSF West Bank Yard.
- Construct special track work and modify signal/communication infrastructure north of LAUS.
- Construct a run-through track ramp on the southern extent of Platform 4 at LAUS.
- Construct a common viaduct/deck over US-101.
- Construct a common embankment from Vignes Street to Center Street south of LAUS.
- Construct common Center Street Bridge south of LAUS.
- Construct common embankment or new common bridge from Center Street to Amtrak Bridge south of LAUS.
- Construct common Amtrak Bridge south of LAUS.
- Construct Division 20 access road.
- Construct common rail embankment on the west bank of the Los Angeles River (from Amtrak Bridge to First Street Bridge).
- Construct new dedicated lead tracks for BNSF freight trains and Amtrak trains.
- Construct two run-through tracks from Platform 4 at LAUS to the main line tracks along the west bank of the Los Angeles River.

Some embankments and/or bridges south of LAUS could be constructed in a phased manner.

1.5.2 Full Build-Out Condition (Phase B)

The full build-out condition (also referred to as Phase B) is when new lead tracks and the elevated throat north of LAUS, along with the elevated rail yard and concourse-related improvements at LAUS would be implemented. The full build-out condition aligns with a construction completion date as early as 2031.

A summary of the proposed activities associated with the full build-out condition is provided below.

- Construct new compatible lead tracks and reconstruct throat north of LAUS.
- Construct new bridges over Vignes Street and Cesar Chavez Avenue north of LAUS.

- Construct elevated rail yard, concourse-related improvements, and East/West Plazas at LAUS.
- Construct remaining run-through tracks for regional/intercity rail operations on previously constructed structures south of LAUS.

The full build-out condition includes the common rail infrastructure for the planned HSR system that would be located throughout the Link US Project limits, including improvements at LAUS. Operation of HSR trains would occur on two lead tracks north of LAUS, Platforms 2 and 3 and associated Tracks 3 through 6 at LAUS, and on HSR run-through tracks supported by common rail bridges and embankments south of LAUS. Operation of the planned HSR system is or will be considered in CHSRA’s environmental documentation for the Burbank to Los Angeles and Los Angeles to Anaheim Project Sections.

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2.0 Regulatory Setting

2.1 Federal Laws and Regulations

2.1.1 Procedures for Considering Environmental Impacts (64 Federal Register Section 28545) (16 USC 1531 et seq.)

These FRA procedures state that an EIS should consider possible effects on ecological systems, wetland areas, and endangered species or wildlife.

2.1.2 Federal Endangered Species Act (16 USC 1531 et seq.)

The Endangered Species Act protects federally threatened and endangered plants and animals and their critical habitat. Adverse effects on federally listed species would require consultation with the U.S. Fish and Wildlife Service (USFWS), which administers the Endangered Species Act for all terrestrial species. A Section 7 consultation applies to projects directly undertaken by a federal agency or private projects requiring a federal permit or approval. In addition, the act requires federal agencies to consult with USFWS to ensure that projects they authorize, fund or carry are not likely to jeopardize protected species.

2.1.3 Migratory Bird Treaty Act (16 USC 703–712)

The MBTA provides special protection for migratory families of birds (i.e., those avian species that winter south of the U.S. but breed within the U.S.) by regulating hunting or trade. The MBTA prohibits anyone to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR Part 21). Take is defined in 50 CFR Part 10.12 as, “[t]ake means to pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture or collect.” Such activity is potentially punishable by fines and/or imprisonment. The use of families as opposed to individual species within the act means that numerous nonmigratory birds are extended protection by the MBTA. Most nesting birds are covered by the MBTA.

2.1.4 Bald and Golden Eagle Protection Act (16 USC 668-668d)

The Bald and Golden Eagle Protection Act, enacted in 1940, and amended several times since, prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald or golden eagles, including their parts (including feathers), nests, or eggs.

2.1.5 Executive Order 13186 – Protection of Migratory Bird Populations (33 USC 401 et seq.)

Executive Order (EO) 13186 mandates responsibilities of Federal Agencies to Protect Migratory Birds, signed on January 10, 2001, directs federal agencies to take certain actions to further implement the MBTA and promote the conservation of migratory bird populations.

2.1.6 Executive Order 11988 and 11990 – Floodplain Management and Protection of Wetlands

Issued on May 24 1977, EO 11988, Floodplain Management, directs federal agencies to assert leadership in reducing flood losses to assert leadership in reducing flood losses and losses to environmental values served by floodplains; avoid actions located in or adversely affecting floodplains unless there is no practicable alternative; take action to mitigate losses if avoidance is not practicable; and establishes a process for flood hazard evaluation based upon the 100-year base flood standard of the National Flood Insurance Program (NFIP). It also directs federal agencies to issue implementing procedures; provides a consultation mechanism for developing the implementing procedures; and provides oversight mechanisms. EO 11990, Protection of Wetlands, was issued on the same date, and requires federal agencies to avoid activity that adversely affects wetlands and to encourage the preservation and enhancement of beneficial functions of wetlands.

2.1.7 Clean Water Act – Section 404 (United States Army Corps of Engineers) (33 USC 1251 et seq.)

Section 404 of the Clean Water Act regulates the discharge (temporary or permanent) of dredged or fill material into waters of the U.S., including wetlands. A discharge of fill material includes, but is not limited to, grading, placing riprap for erosion control, pouring concrete, and stockpiling excavated material into waters of the U.S. Activities that generally do not involve a regulated discharge (if performed specifically in a manner to avoid discharges) include driving pilings, performing certain drainage channel maintenance activities, constructing temporary mining and farm/forest roads, and excavating without stockpiling.

The Clean Water Rule: Definition of waters of the U.S. was published in the *Federal Register* on June 29, 2015. On October 22, 2019, the U.S. Environmental Protection Agency and USACE published a final rule repealing the 2015 Clean Water Rule: Definition of waters of the U.S. and restored the regulatory text that existed prior to the 2015 rule. The final rule became effective on December 23, 2019.

The U.S. Environmental Protection Agency and USACE issued a final rule adding a February 6, 2020, applicability date to the 2015 Final Clean Water Rule (*Federal Register* 83 (25), 5201, February 6, 2018), which clarifies that agencies are to administer the regulations in place prior to the 2015 Final Clean Water Rule until February 6, 2020, or until a new rule goes into effect.

The U.S. Environmental Protection Agency and USACE proposed a revised definition of waters of the U.S. According to the U.S. Environmental Protection Agency website, the proposed rule was published in the *Federal Register* for public comments on February 14, 2019, and the public comment period closed on April 15, 2019.

The proposed action is located within the USACE Los Angeles District.

Waters of the United States

Prior to publication of the 2015 Final Clean Water Rule detailed above, the term waters of the U.S. was defined in USACE regulations at 33 CFR Part 328.3(a) as:

- All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- All interstate waters, including interstate wetlands.
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - (i) Which are or could be used by interstate or foreign travelers for recreation or other purposes.
 - (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
 - (iii) Which are used or could be used for industrial purpose by industries in interstate commerce.
- All impoundments of waters otherwise defined as waters of the U.S. under the definition.
- Tributaries of waters identified above.
- The territorial seas.
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified above.

The limits of USACE jurisdiction in nontidal waters extends to the ordinary high-water mark, which is defined at 33 CFR Part 328.3(e) as:

... that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction terrestrial vegetation, vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Wetlands

The term wetlands (a subset of waters of the U.S.) is defined at 33 CFR Part 328.3(c)(4) as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions.” In 1987, USACE published a manual to guide its field personnel in determining jurisdictional wetland boundaries followed by the Arid West Region supplement in 2008

(Environmental Laboratory 1987). The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Region supplement generally requires that to be considered a wetland, the vegetation, soils, and hydrology of an area need to exhibit at least minimal hydric characteristics. While the manual provides great detail in methodology and allows for varying special conditions, a wetland should normally meet each of the following three criteria:

1. The plant community must be determined to be hydrophytic based on: (1) the dominance test applied using the 50/20 rule³; or (2) where the vegetation fails the dominance test and wetland hydrology and hydric soils are present, vegetation is determined to be hydrophytic using the Prevalence Index test⁴ based upon the indicator status (i.e., rated as facultative or wetter) in the *National List of Plant Species that Occur in Wetlands*).
2. Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., redoximorphic features with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions).
3. Hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for a sufficient period to cause: (1) the formation of hydric soils; and (2) establishment of a hydrophytic plant community. A positive test for wetland hydrology is based on the presence of one primary or two secondary indicators.

Supreme Court Decisions

Solid Waste Agency of North Cook County

On January 9, 2001, the Supreme Court of the U.S. issued a decision on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* with respect to whether USACE could assert jurisdiction over isolated waters. The Solid Waste Agency of North Cook County ruling stated that USACE does not have jurisdiction over nonnavigable, isolated, intrastate waters.

Rapanos/Carabell

In the Supreme Court cases of *Rapanos v. United States* and *Carabell v. United States* (herein referred to as *Rapanos*), the court attempted to clarify the extent of USACE jurisdiction under the Clean Water Act (USACE 2008a). The nine Supreme Court justices issued five separate opinions (one plurality opinion, two concurring opinions, and two dissenting opinions) with no single opinion commanding a majority of the court. In light of the *Rapanos* decision, USACE would assert jurisdiction over traditional navigable waters, wetlands adjacent to traditional navigable waters, nonnavigable tributaries of traditional navigable waters that are relatively

³ If a particular species accounts for more than 50 percent of the total coverage of vegetation in the stratum or for at least 20 percent of the total coverage in the stratum where the species was found that species is defined as dominant.

⁴ A Prevalence Index is calculated using wetland indicator status and relative abundance for each vascular plant species present.

permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months) and wetlands that directly abut such tributaries. USACE would decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water: nonnavigable tributaries that are not relatively permanent, wetlands adjacent to nonnavigable tributaries that are not relatively permanent and wetlands adjacent to but that do not directly abut a relatively permanent nonnavigable tributary.

Flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary indicate whether they significantly affect the chemical, physical, and biological integrity of downstream traditional navigable waters. Analysis of potentially jurisdictional streams includes consideration of hydrologic and ecologic factors. The consideration of hydrological factors includes volume, duration, and frequency of flow, proximity to traditional navigable waters, size of a watershed, average annual rainfall, and average annual winter snowpack. The consideration of ecological factors also includes the ability for tributaries to carry pollutants and flood waters to a traditional navigable water, the ability of a tributary to provide aquatic habitat that supports a traditional navigable water, the ability of wetlands to trap and filter pollutants or store flood waters, and maintenance of water quality.

According to a USACE guidance document (USACE 2008b), USACE generally would not assert jurisdiction over the following features: swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) and ditches (including roadside ditches) excavated wholly in and draining only uplands that generally do not carry a relatively permanent flow of water.

2.1.8 Clean Water Act – Section 401 (Regional Water Quality Control Board) (33 USC 1341)

The Regional Water Quality Control Board regulates activities pursuant to Section 401(a)(1) of the Clean Water Act. Section 401 of the Clean Water Act specifies that certification from the state is required for any applicant requesting a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters.

Discharges of groundwater to surface waters resulting from construction dewatering activities would be covered under General National Pollutant Discharge Elimination System Permit Number CAG994004 from the Regional Water Quality Control Board. Such discharges must be demonstrated to not violate water quality objectives for the receiving waters (Los Angeles Regional Water Quality Control Board 2013).

The proposed action is located within the Los Angeles Regional Water Quality Control Board Region 4 jurisdiction.

2.1.9 Executive Order 13112 – Invasive Species Prevention

On February 3, 1999, Executive Order (EO) 13112 was signed, establishing the National Invasive Species Council. EO 13112 required that each federal agency identify actions they take that could affect the status of invasive species. In addition, subject to the availability of appropriations, each federal agency was tasked with using relevant programs and authorities to: “(i) prevent the introduction of invasive species, (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner, (iii) monitor invasive species populations accurately and reliably, (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded, (v) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species, and (vi) promote public education on invasive species and the means to address them.”

EO 13112 also required that each federal agency “not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm would be taken in conjunction with the actions.”

On December 5, 2016, an EO was issued to maintain the original intent of EO 13112 regarding federal prevention and invasive species control efforts. It also expanded the membership of the Invasive Species Advisory Committee, clarifying the operations of the National Invasive Species Council and incorporating additional considerations of climate change and technological innovation to address threats from invasive species. On September 29, 2017, an EO was issued to continue the Invasive Species Advisory Committee through September 30, 2019.

2.2 State Laws and Regulations

2.2.1 California Endangered Species Act

The California Endangered Species Act conserves and protects plant and animal species at risk of extinction. The act requires state agencies to consult with the California Department of Fish and Wildlife (CDFW) to ensure that any action authorized, funded, or carried out by that agency is not likely to jeopardize the continued existence of any endangered or threatened species.

2.2.2 California Fish and Game Code – Sections 2080 and 2081

Section 2080 of the California Fish and Game Code prohibits take, importation, exportation, possession, purchase, and sale of any species that are determined to be endangered or threatened. The California Endangered Species Act allows for take incidental to otherwise lawful activity under the provisions of Section 2081(b).

2.2.3 California Fish and Game Code – Sections 3503 and 3503.5

Sections 3503 and 3503.5 provide regulatory protection to resident and migratory birds and all birds of prey within California.

2.2.4 California Fish and Game Code – Section 1602

Section 1602 of the California Fish and Game Code requires a permit for any activity that would result in the modification of the bed, bank, or channel of a stream, river, or lake, including water diversion and damming and removal of vegetation from a floodplain. This permit type governs both activities that modify the physical characteristics of the stream and activities that may affect fish and wildlife resource that use the stream and surrounding habitat (i.e., riparian vegetation or wetlands).

2.2.5 California Environmental Quality Act Guidelines Section 15380 – Rare or Endangered Species

California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or State list of protected species may be considered “rare” or “endangered” if the species can be shown to meet certain specified criteria. The criteria is modeled after the California Endangered Species Act and provides an agency with the ability to protect a species from a project’s potential impacts until the respective government agencies designate the species as protected, if warranted.

2.3 Local Laws and Regulations

2.3.1 LA Metro Tree Policy

LA Metro is responsible for trees within LA Metro property lines and should tree removal be required, trees would be replaced at a ratio of 2:1 or replaced in-kind with trees that are a minimum size of 36-inch standard box. In addition, removal of trees designated as heritage or protected by local ordinance would be avoided to the greatest extent feasible. Should heritage tree removal be necessary, tree replacement would occur at a 4:1 ratio by trees of the same variety. Local designated protected trees would be protected or removed in compliance with the local ordinance identifying a protected tree.

2.3.2 City of Los Angeles Ordinance 186873 – Protected Tree and Shrub Regulations

Pursuant to the City of Los Angeles Protected Tree and Shrub Regulations (Ordinance No. 186873), no person shall relocate or remove any protected tree or shrub without first having applied for an obtained a permit from the Board of Public Works or its designated officer or employee. A protected tree means any Southern California indigenous tree species which measures 4 inches or more in cumulative diameter, 4.5 feet above the ground level at the base of the tree. Protected tree species include oaks, Southern California black walnut, western

sycamore, and California bay. A protected shrub means any Southern California indigenous shrub species which measures 4 inches or more in cumulative diameter, 4.5 feet above the ground level at the base of the shrub. Protected shrub species include Mexican elderberry and toyon. The term “removed” or “removal” shall include any act that will cause a protected tree or shrub to die, including, but not limited to, acts that inflict damage upon the root system or other part of the tree or shrub by fire, application of toxic substances, operation of equipment or machinery, or by changing the natural grade of land by excavation or filling the drip line area around the trunk.

2.3.3 City of Los Angeles General Plan Framework – Open Space and Conservation Elements

This chapter of the General Plan includes conservation policies that seek ways to create and utilize open space, addressing matters of land use, urban form, and parks development. Policies include conservation and watershed development goals to protect, conserve, and enhance natural resources.

3.0 Methodology

The purpose of the biological survey and subsequent analysis provided in this Natural Environment Study (Minimal Impacts) is summarized below:

- To characterize vegetation and habitats within the BSA.
- To identify known or potential wildlife and fish migration corridors that may be affected.
- To identify wetlands and waters potentially under the jurisdiction of USACE and evaluate the need for USACE permits.
- To identify the known or potential presence of federally listed special-status plant and animal species or federally designated or proposed critical habitat.
- To identify the known or potential presence of California-listed special-status plant and wildlife species.
- To identify sensitive species, including state species of concern, and other protections provided to special-status species by federal and state regulations.

3.1 Definition of Biological Study Area

The BSA corresponds to the Project footprint for the Build Alternative because it encompasses the maximum extent of proposed physical disturbance considered (Figure 3-1 through Figure 3-6). Because the Build Alternative is in an urban developed area with commercial, industrial, and residential properties, only areas that were publicly accessible were surveyed. The BSA was used as the study limit boundaries for the general biological survey.

3.2 Literature Review

A list of federally listed and candidate special-status species that have the potential to occur within the vicinity of the BSA was prepared using information provided by the California Department of Fish and Wildlife’s California Natural Diversity Database RareFind 5 program (California Department of Fish and Wildlife 2020) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2018). A search of these databases were conducted for the nine U.S. Geological Survey quadrangles including and surrounding the BSA, which include the Los Angeles, Hollywood, Burbank, Pasadena, El Monte, Mount Wilson, Whittier, South Gate, and Inglewood, California U.S. Geological Survey 7.5-minute quadrangles. Updated database searches were conducted for these quadrangles on February 22, 2024 (CDFW 2024, CNPS 2024). In addition, a USFWS Information for Planning and Consultation Trust Resource Report Official Species List, valid for 90 days, was generated for the BSA on November 12, 2020 (USFWS 2020). An additional USFWS Information for Planning and Consultation Trust Resource Report Official Species List, valid for 90 days, was generated for the BSA on September 12, 2023 (USFWS 2023). A list of threatened or endangered species under jurisdiction of the National Oceanic and Atmospheric

Administration’s (NOAA’s) National Marine Fisheries Service (NMFS) was requested on October 3, 2016 and confirmed to not have changed on September 29, 2020. Appendix A includes the Information for Planning and Consultation, National Marine Fisheries Service species lists, and the California Natural Diversity Database search results.

3.3 General Surveys and Habitat Assessments

Biologists conducted a general biological survey of the BSA on February 19, 2015, between the hours of 9:00 AM and noon. Weather conditions were conducive for surveying, with temperatures ranging between 60- and 70-degrees Fahrenheit, cloudy to clear skies, and winds from 0 to 2 miles per hour. An additional survey was conducted in February 2023 to verify mapped vegetation communities have not changed. All plant and animal species observed during the biological survey are included in Appendix B. General site photographs are located in Appendix C.

Vegetation was classified using the Holland system of natural communities as described in *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). Botanical species discussed in this report follow both Latin and common names taken from the online Jepson eFlora (Jepson Flora Project 2019).

Wildlife species were detected by sight and/or specific calls. Binoculars were used to aid in the identification of wildlife species, potential nest locations, foraging areas, and flyover and stopping habitat.

3.3.1 Botanical Surveys

No species-specific presence or absence botanical surveys were conducted for federally or state listed or candidate plant species due to the lack of suitable habitat for such species within or in the vicinity of the BSA. All plant species identified during the general biological survey are included in Appendix B.

3.3.2 Wildlife Surveys

No species-specific presence or absence wildlife surveys were conducted for federally or state listed or candidate wildlife species due to the lack of suitable habitat for such species within or in the vicinity of the BSA. However, the BSA does contain marginally suitable habitat for two bat Species of Special Concern (SSCs); therefore, preconstruction surveys to determine the presence/absence of these species are recommended. All animal species observed during the general biological survey were documented and are included in Appendix B.

3.4 Agency Coordination and Professional Contacts

A USFWS official species list was acquired using the online Information for Planning and Consultation tool on November 12, 2020 (USFWS 2020) and on September 12, 2023 (USFWS 2023). The Information for Planning and Consultation tool provides a list of proposed,

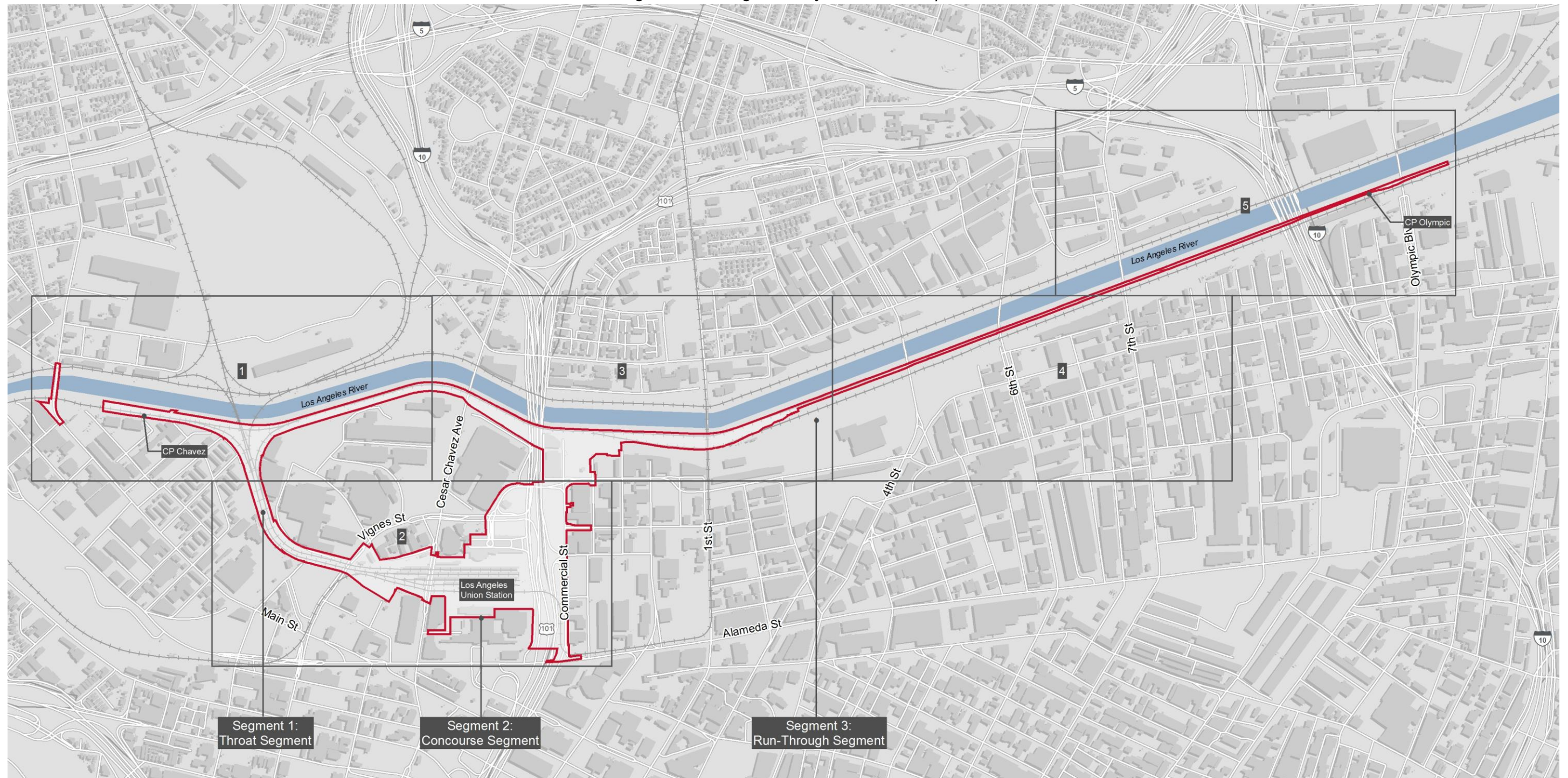
threatened, or endangered species and critical habitat potentially occurring in the vicinity of a project. In addition, a list of threatened or endangered species under jurisdiction of the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service was received on September 29, 2020. These lists are provided in Appendix A.

3.5 Limitations That May Influence Results

The BSA is located within an urbanized area with industrial, commercial, and residential development. Planted nonnative (ornamental) species of trees and shrubs were identified only to the extent that the field surveyors were able to identify them in the field. Because plants were located on private property, samples were not collected to use for later identification. However, most of the inaccessible areas appeared to include disturbed habitat dominated by nonnative plants and would not be expected to provide suitable habitat for federally listed or candidate plant species. A reconnaissance survey was conducted in 2023 to verify that the BSA has not changed from the urbanized and developed environment described in the 2015 field surveys. The BSA remains urban and developed with minimal areas of disturbed environment. There are no limitations that would severely influence the results or substantially alter the findings of the general biological survey.

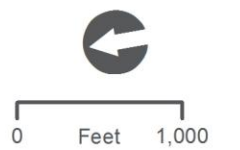
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Figure 3-1. Biological Study Area Index Map



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- Biological Study Area
- Detailed Map Index



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Figure 3-2. Biological Study Area Detail Map 1



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 Biological Study Area



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Figure 3-3. Biological Study Area Detail Map 2



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 Biological Study Area

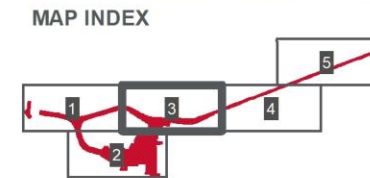


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Figure 3-4. Biological Study Area Detail Map 3



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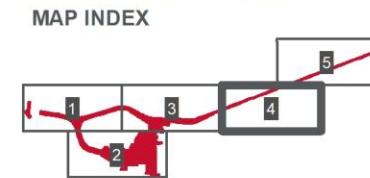


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Figure 3-5. Biological Study Area Detail Map 4



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 Biological Study Area

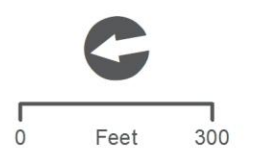


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Figure 3-6. Biological Study Area Detail Map 5



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 Biological Study Area



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4.0 Affected Environment

This section describes vegetation communities and land cover types, botanical species, wildlife species, migratory birds, wetlands and other waters of the U.S., wildlife dispersal corridors and linkages, habitat conservation plans, and local tree preservation ordinances for the existing condition to characterize the affected environment.

4.1 Existing Biological and Physical Conditions

The existing biological and physical conditions of the BSA are characterized below.

4.1.1 Biological Study Area

The BSA is located in urbanized area with industrial, commercial, and residential land uses in the downtown area of the City of Los Angeles, Los Angeles County, California (Figure 3-1 through Figure 3-6). Land uses immediately surrounding the BSA are also commercial, industrial, and residential. The eastern edge of the BSA is adjacent to Los Angeles River.

4.1.2 Physical Conditions

Vegetation within the BSA was identified as disturbed habitat and urban/developed, consisting primarily of urban ornamental (nonnative) landscaping, as well as native and nonnative plant species characteristic of disturbed areas. The elevation within the BSA is approximately 312 feet (95 meters) above mean sea level. The average annual rainfall for the City of Los Angeles is approximately 18.7 inches (U.S. Climate Data 2020). The average annual high temperature is 71.7 degrees Fahrenheit, and the average annual low temperature is 55.9 degrees Fahrenheit (U.S. Climate Data 2020).

Soils

Soils within the BSA were identified using the Natural Resources Conservation Service's Web Soil Survey (U.S. Department of Agriculture 2018). The BSA supports one soil series, Hanford fine sandy loam, as described below (Figure 4-1):

- **Hanford fine sandy loam, 0 to 15 percent slopes** – this soil type is slightly acid to neutral and usually occurs on stream bottoms, floodplains, and alluvial fans formed in deep, moderately coarse textured alluvium derived predominantly from granite. Hanford fine sandy loam occurs at elevations of less than 150 feet to 3,500 feet. These soils are very deep and well drained, with negligible to low runoff.

Hydrology

The BSA is located within the Los Angeles River Watershed, which encompasses approximately 834 square miles. The Los Angeles River spans from the Santa Monica Mountains to the Simi Hills in the east and from Santa Susana Mountain to the San Gabriel

Mountains in the north. From the headwaters in the mountains, the Los Angeles River flows eastward to Griffith Park before turning south through Glendale Narrows and into San Pedro Bay near Long Beach. Large portions of the Los Angeles River are concrete-lined, including the section below the North Main Street Bridge and other areas near the BSA.

4.1.3 Biological Conditions in the Biological Study Area

The BSA supports two vegetation community/land cover types identified as urban/developed and disturbed habitat (Figure 4-2 through Figure 4-6). Photographs of these vegetation community/land cover types are provided in Appendix C. Vegetation communities in this report generally follow Holland (1986) with updated scientific names as reported in the online Jepson eFlora (Jepson Flora Project 2019).

Urban/Developed (Holland Code 12000)

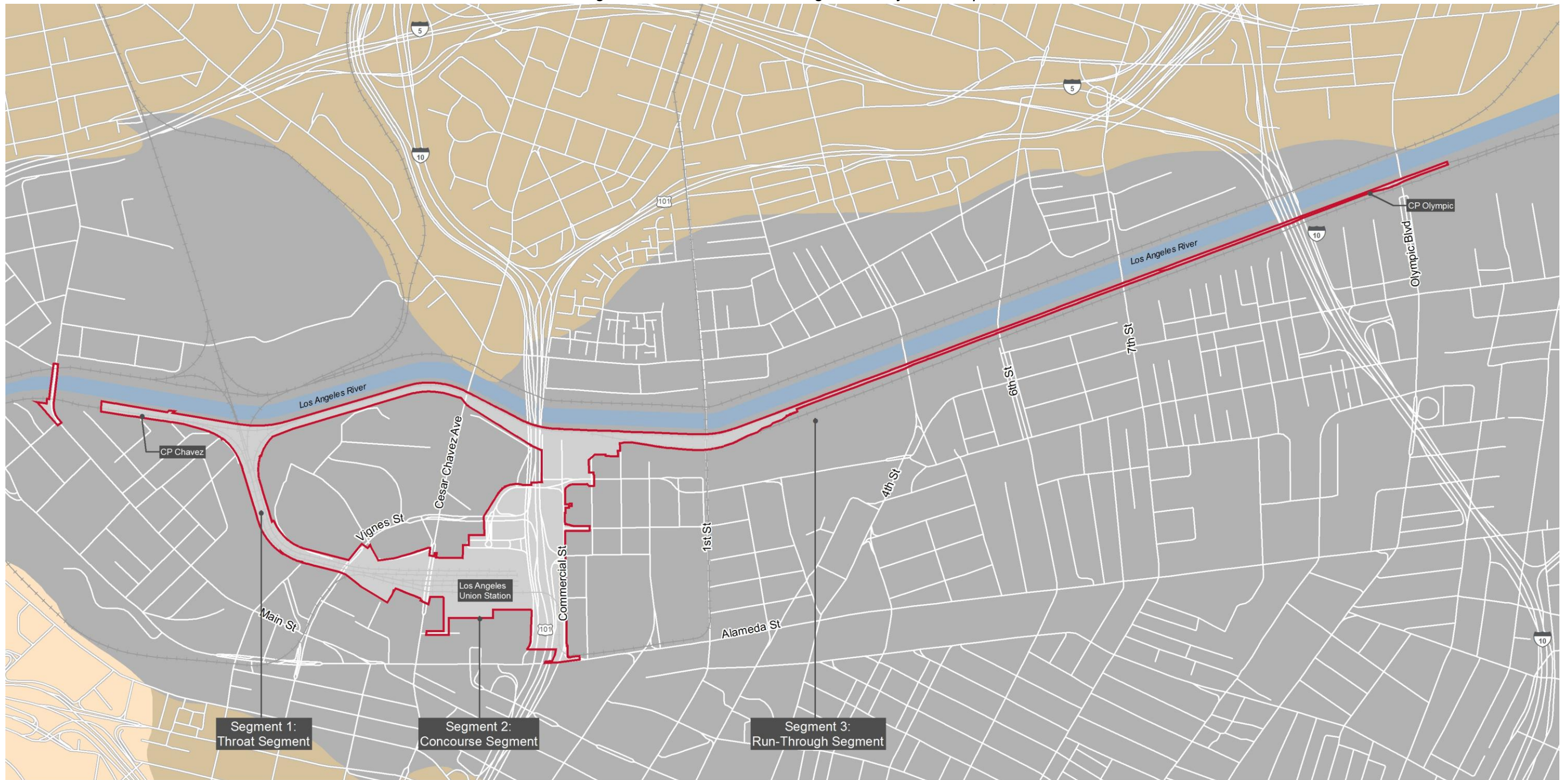
Urban/developed land occupies 99.1 acres within the BSA. According to Holland, urban/developed land is comprised of areas of intensive use with much of the land constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is highly modified and characterized by permanent or semi-permanent structures, pavement, and unvegetated areas.

Developed areas, particularly residential developments, and areas with landscaped vegetation, can provide moderate habitat value for common urban-adapted wildlife species. The planting and maintenance of shrubs, trees, ornamental plants, and lawns in residential, business, and park areas enhance this habitat for wildlife species that can coexist with humans. The moderate numbers of planted trees in the study area provide some habitat value for resident or migratory birds and may serve as nesting sites for such species.

Disturbed Habitat (Holland Code 11300)

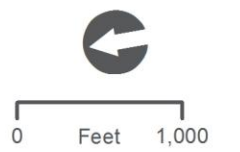
Disturbed habitat occupies 1.8 acres within the BSA. Disturbed habitat is primarily used to identify areas that have undergone severe alteration of natural communities to the extent that they are no longer self-sustaining or functioning naturally. These areas have been previously physically disturbed but continue to retain a soil substrate. Disturbed areas consist of predominantly nonnative, weedy species. This is not a natural community and generally does not provide habitat for wildlife or sensitive species. Disturbed habitat includes areas within the BSA that consist of partially paved areas with trash and are dominated by nonnative vegetation. Only a few native plant species were observed within the BSA, including common horseweed (*Erigeron canadensis*), common sunflower (*Helianthus annuus*), lupine (*Lupinus* sp.), and jimsonweed (*Datura wrightii*). These native plants are typically more tolerant of disturbance than other native plant species.

Figure 4-1. United States Geological Survey Soils Map



LEGEND

- Biological Study Area
- Hanford Fine Sandy Loam
- Altamont Clay Loam
- Ramona Loam



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Figure 4-2. Vegetation Communities and Land Cover Types in the Biological Study Area (Detail Map 1)

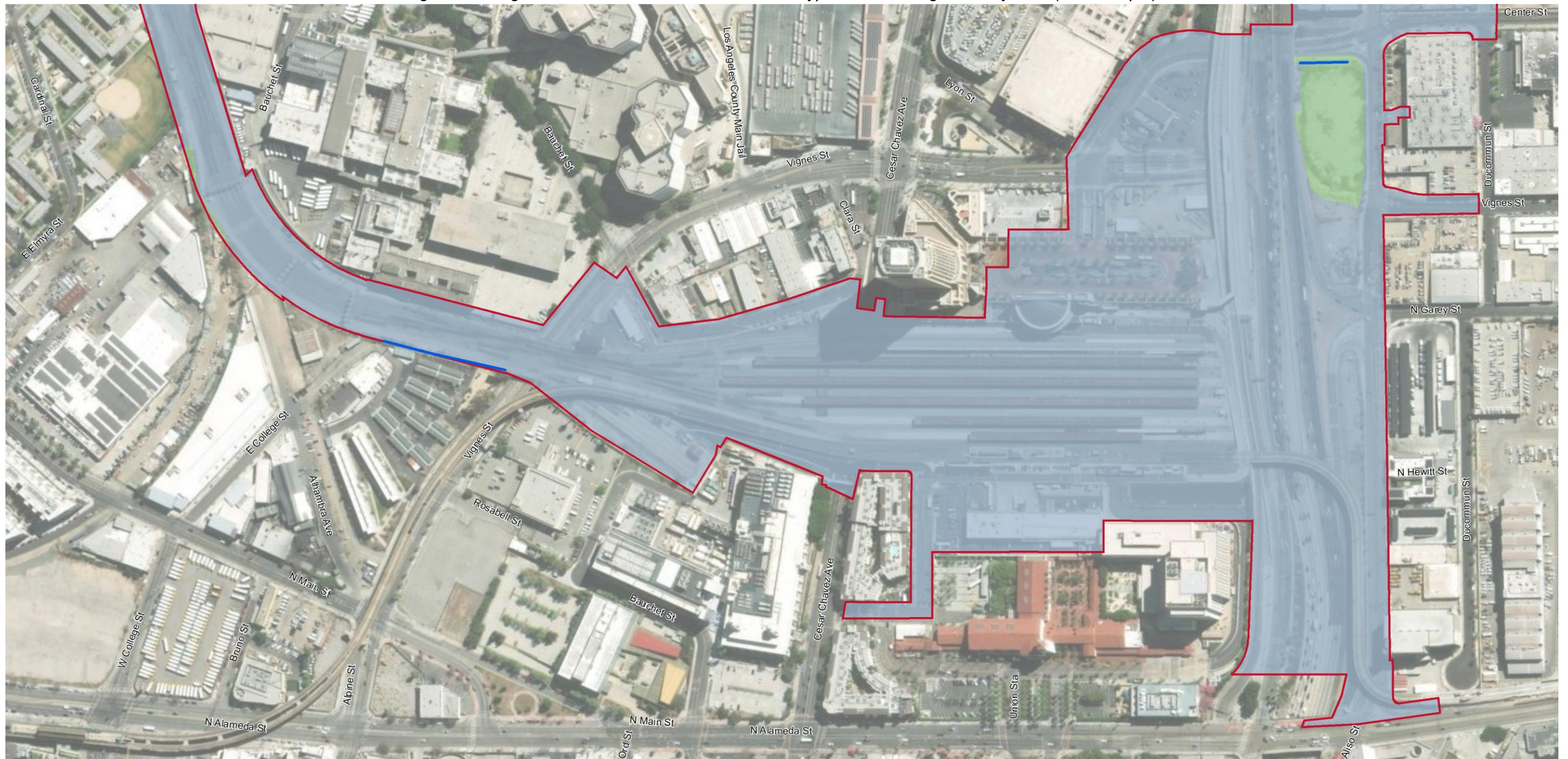


LEGEND
 Biological Study Area
 Urban/Developed



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Figure 4-3. Vegetation Communities and Land Cover Types in the Biological Study Area (Detail Map 2)



LEGEND

- Biological Study Area
- Disturbed
- Urban/Developed
- Non-Jurisdictional Ditch

MAP INDEX



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Figure 4-4. Vegetation Communities and Land Cover Types in the Biological Study Area (Detail Map 3)



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 [Red outline] Biological Study Area
 [Blue shading] Urban/Developed

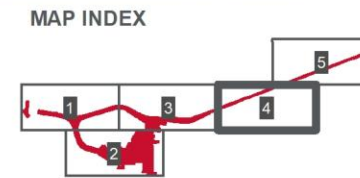


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Figure 4-5. Vegetation Communities and Land Cover Types in the Biological Study Area (Detail Map 4)



LEGEND
 Biological Study Area
 Urban/Developed

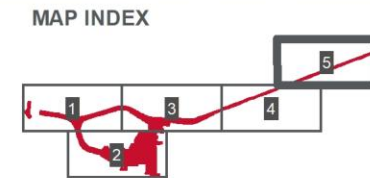


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Figure 4-6. Vegetation Communities and Land Cover Types in the Biological Study Area (Detail Map 5)



LEGEND
 Biological Study Area
 Urban/Developed



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4.2 Regional Species and Habitats of Concern

This section documents the potential occurrence of special-status plant and animal species, species protected by the MBTA, and wildlife dispersal corridors or linkages within the BSA. While the BSA consists entirely of urban/developed land and disturbed habitat, surrounding areas support a variety of native vegetation communities in addition to developed areas. Information based on the literature review for the special-status species in the BSA is provided in this section.

4.2.1 Special-Status Plants

Special-status plants include those that are listed by USFWS and CDFW as endangered or threatened, or candidates for listing by USFWS and CDFW, and those considered sensitive by CNPS California Rare Plant Ranking (CRPR) Lists 1, 2, and, in cases where plant populations are locally significant, CRPR Lists 3 and 4. The literature review indicated 37 special-status plant species with known occurrences within the nine U.S. Geological Survey quadrangles including and surrounding the BSA (Appendix A). Eleven of these special-status plant species are federally and/or state-listed endangered, threatened, or candidate species.

Due to the lack of native, undisturbed habitat within the BSA, none of the special-status plants listed by USFWS and/or CDFW are expected to occur within the BSA. None of these special-status plant species were observed within the BSA during the field visit and none are expected to occur due to a lack of suitable soils and/or habitat or due to the BSA occurring outside of the known elevation range of the species. Further information on these species, including their status, habitat requirements, and potential for occurrence in the BSA, is summarized in Appendix A.

4.2.2 Special-Status Animals

Special-status animals are species or subspecies listed as threatened, endangered, or being evaluated (proposed) for listing by USFWS or by CDFW and/or are considered sensitive by CDFW. A sensitive designation includes those listed as SSCs. In addition, nesting birds provided protection by the MBTA are considered special-status animals.

The literature review indicated 34 special-status wildlife species with known occurrences within the nine U.S. Geological Survey quadrangles including and surrounding the BSA. Nine of these species are federally and/or state-listed as endangered or threatened, or proposed endangered or threatened, or are considered fully protected species by the State of California (Appendix A).

Due to the lack of native, undisturbed habitat within the BSA, most of the special-status animals listed by USFWS and/or CDFW are not expected to occur within the BSA. The reach of the Los Angeles River is identified as the action area for the federally endangered Southern California distinct population segment of steelhead (*Oncorhynchus mykiss*); however, this species is not known to occur in the Los Angeles River and is not expected to occur in the BSA (Appendix A).

Further information on these species, including their status, habitat requirements, and potential for occurrence in the BSA, is summarized in Table 4-2.

Marginally suitable roosting and foraging habitat for two SSCs, western mastiff bat (*Eumops perotis californicus*) and western yellow bat (*Lasiurus xanthinus*), occurs in several areas throughout the BSA. These species can occur around bridges, near buildings, and in trees, including naturally occurring or planted (ornamental) trees (e.g., palm or other trees). No special-status animals, including western mastiff bat and western yellow bat, were observed within the BSA; however, surveys were conducted during the daytime when bats are typically roosting and are more difficult to observe.

Further information on special-status plant and wildlife species, including their status, habitat requirements, and potential for occurrence in the BSA, are summarized in Table 4-1 and Table 4-2, respectively.

Suitable habitat for nesting birds protected by the MBTA is present in the BSA. Suitable habitat includes limited mature trees (greater than 24 inches in diameter), ornamental vegetation, utility poles, building rafters and eaves, and bridges. Several migratory bird species were observed in the BSA, including American kestrel (*Falco sparverius*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), house finch (*Carpodacus mexicanus*), and lesser goldfinch (*Carduelis psaltria*). Suitable habitat that would support breeding, roosting, and foraging migratory birds, including, but not limited to, the above species, is present in the BSA.

4.2.3 Natural Communities of Special Concern

Natural communities are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status plants or animals occurring in those habitats. No natural communities of special concern are located within or adjacent to the BSA.

4.2.4 Wildlife Movement

The BSA occurs within a heavily developed urban area more than 5 miles from any substantial open space patches. While there are larger open space patches to the north and east of the BSA, these areas are separated from the BSA by Interstate 5 and State Route 110. The reach of the Los Angeles River located below the North Main Street Bridge and adjacent to the BSA may support some north-to-south movement for urban-adapted wildlife, but this function would be limited due to the lack of vegetated cover. Arroyo Seco, located approximately 0.8 mile to the north of the BSA, may support some east-to-west wildlife movement.

Table 4-1. Listed, Proposed, and Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
CARROT FAMILY		APIACEAE			
San Diego button-celery	<i>Eryngium aristulatum</i> var. <i>parishii</i>	Federal: FE State: SE CRPR: 1B.1	Annual/Perennial herb. Occurs in mesic soils in coastal scrub, valley and foothill grassland, and vernal pools from 66 to 2,034 feet (20 to 620 meters) AMSL. Blooms April through June.	Absent	Not Expected. The BSA does not support suitable soils or habitat.
SUNFLOWER FAMILY		ASTERACEAE			
Southern tarplant	<i>Centromadia parryi</i> ssp. <i>australis</i>	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in marshes and swamps, valley and foothill grassland, and vernal pools below 1,575 feet (480 meters) AMSL. Blooms May through November.	Absent	Not Expected. The BSA does not support suitable habitat.
Smooth tarplant	<i>Centromadia pungens</i> ssp. <i>laevis</i>	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland below 2,100 feet (640 meters) AMSL. Blooms Apr through September.	Absent	Not Expected. The BSA does not support suitable soils or habitat.
Coulter's goldfields	<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in coastal salt marshes and swamps, playas, and vernal pools below 4,000 feet (1,220 meters) AMSL. Blooms February through June.	Absent	Not Expected. The BSA does not support suitable habitat.
White rabbit-tobacco	<i>Pseudognaphalium leucocephalum</i>	Federal: None State: None CRPR: 2B.2	Perennial herb. Occurs in sandy, gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland below 6,900 feet (2,100 meters) AMSL. Blooms July through December.	Absent	Not Expected. The BSA does not support suitable soils or habitat.

Table 4-1. Listed, Proposed, and Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
San Bernardino aster	<i>Symphotrichum defoliatum</i>	Federal: None State: None CRPR: 1B.2	Perennial rhizomatous herb. Occurs near ditches, streams, and springs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland from 7 to 6,700 feet (2 to 2,040 meters) AMSL. Blooms July through November.	Absent	Not Expected. The BSA does not support suitable habitat.
Greata's aster	<i>Symphotrichum greatae</i>	Federal: None State: None CRPR: 1B.3	Perennial rhizomatous herb. Occurs in mesic soils in broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodland from 985 to 6,595 feet (300 to 2,010 meters) AMSL. Blooms June through October.	Absent	Not Expected. The BSA does not support suitable soils or habitat and occurs below the known elevation range for this species.
BARBERRY FAMILY	BERBERIDACEAE				
Nevin's barberry	<i>Berberis nevinii</i>	Federal: FE State: SE CRPR: 1B.1	Annual herb. Occurs in sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub from 900 to 2,707 feet (274 to 825 meters) AMSL. Blooms February through June.	Absent	Not Expected. The BSA does not support suitable soils or habitat and occurs below the known elevation range for this species.
BORAGE FAMILY	BORAGINACEAE				
Brand's star phacelia	<i>Phacelia stellaris</i>	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in coastal dunes and scrub below 1,312 feet (400 meters) AMSL. Blooms March through June.	Absent	Not Expected. The BSA does not support suitable habitat.

Table 4-1. Listed, Proposed, and Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
MUSTARD FAMILY		BRASSICACEAE			
Gambel's water cress	<i>Nasturtium gambelii</i>	Federal: FE State: ST CRPR: 1B.1	Perennial rhizomatous herb. Occurs in freshwater or brackish marshes and swamps from 16 to 1,083 feet (5 to 330 meters) AMSL. Blooms April through October.	Absent	Not Expected. The BSA does not support suitable habitat.
PINK FAMILY		CARYOPHYLLACEAE			
Marsh sandwort	<i>Arenaria paludicola</i>	Federal: FE State: SE CRPR: 1B.1	Perennial stoloniferous herb. Occurs in sandy openings in freshwater or brackish marshes and swamps from 10 to 558 feet (3 to 170 meters) AMSL. Blooms May through August.	Absent	Not Expected. The BSA does not support suitable habitat.
GOOSEFOOT FAMILY		CHENOPODIACEAE			
Coulter's saltbush	<i>Atriplex coulteri</i>	Federal: None State: None CRPR: 1B.2	Perennial herb. Found in alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland from 10 to 1,510 feet (3 to 460 meters) AMSL. Blooms March through October.	Absent	Not Expected. The BSA does not support suitable soils or habitat.
Parish's brittlescale	<i>Atriplex parishii</i>	Federal: None State: None CRPR: 1B.1	Annual herb. Found in alkaline soils in chenopod scrub, playas, and vernal pools from 95 to 6,234 feet (29 to 1,900 meters) AMSL. Blooms June through October.	Absent	Not Expected. The BSA does not support suitable soils or habitat.

Table 4-1. Listed, Proposed, and Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
Davidson’s saltscale	<i>Atriplex serenana</i> var. <i> davidsonii</i>	Federal: None State: None CRPR: 1B.2	Annual herb. Occurs in alkaline soils in coastal bluff scrub and coastal scrub from 33 to 656 feet (10 to 200 meters) AMSL. Blooms April through October.	Absent	Not Expected. The BSA does not support suitable soils or habitat.
MORNING-GLORY FAMILY	CONVOLVULACEAE				
Peruvian dodder	<i>Cuscuta obtusiflora</i> var. <i> glandulosa</i>	Federal: None State: None CRPR: 2B.2	Annual parasitic vine. Occurs in freshwater marshes and swamps from 50 to 980 feet (15 to 280 meters) AMSL. Blooms July through October.	Absent	Not Expected. The BSA does not support suitable habitat.
Lucky morning-glory	<i>Calystegia felix</i>	Federal: None State: None CRPR: 1B.1	Annual rhizomatous herb. Historically associated with wetland and marshy places but possibly in drier situations, as well. Possibly occurs in silty loam and alkaline soils in meadows and seeps and alluvial riparian scrub from 100 to 705 feet (30 to 215 meters). Blooms March through September.	Absent	Not Expected. The BSA does not support suitable soils or habitat.
STONECROP FAMILY	CRASSULACEAE				
Many-stemmed dudleya	<i>Dudleya multicaulis</i>	Federal: None State: None CRPR: 1B.2	Perennial herb. Occurs in clay soils in chaparral, coastal scrub, and valley and foothill grassland from 50 to 2,592 feet (15 to 790 meters) AMSL. Blooms April through July.	Absent	Not Expected. The BSA does not support suitable soils or habitat.

Table 4-1. Listed, Proposed, and Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
SEDGE FAMILY		CYPERACEAE			
California sawgrass	<i>Cladium californicum</i>	Federal: None State: None CRPR: 2B.2	Perennial rhizomatous herb. Occurs in meadows, seeps, marshes, and alkaline or freshwater swamps from 197 to 5,250 feet (60 to 1,600 meters) AMSL. Blooms June through September.	Absent	Not Expected. The BSA does not support suitable habitat.
HEATH FAMILY		ERICACEAE			
San Gabriel manzanita	<i>Arctostaphylos glandulosa</i> ssp. <i>gabrielensis</i>	Federal: None State: None CRPR: 1B.2	Perennial evergreen shrub. Occurs in rocky chaparral from 1,952 to 4,922 feet (595 to 1,500 meters) AMSL. Blooms in March.	Absent	Not Expected. The BSA does not support suitable soils or habitat and occurs below the known elevation range for this species.
PEA FAMILY		FABACEAE			
Braunton's milkvetch	<i>Astragalus brauntonii</i>	Federal: FE State: None CRPR: 1B.1	Perennial herb. Occurs in recent burns or disturbed areas, usually sandstone with carbonate layers in chaparral, coastal scrub, and valley and foothill grassland from 13 to 2,100 feet (4 to 640 meters) AMSL. Blooms January through August.	Absent	Not Expected. The BSA does not support suitable soils or habitat.
Ventura marsh milkvetch	<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	Federal: FE State: SE CRPR: 1B.1	Perennial herb. Occurs in coastal dunes, coastal scrub, and the edges of coastal salt or brackish marshes and swamps below 115 feet (35 meters) AMSL. Blooms June through October.	Absent	Not Expected. The BSA does not support suitable habitat and occurs above the known elevation range for this species.

Table 4-1. Listed, Proposed, and Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
Coastal dunes milkvetch	<i>Astragalus tener</i> var. <i>titi</i>	Federal: FE State: SE CRPR: 1B.1	Annual herb. Often occurs in vernal mesic areas in sandy coastal bluff scrub, coastal dunes, and coastal prairie below 165 feet (50 meters) AMSL. Blooms March through May.	Absent	Not Expected. The BSA does not support suitable soils or habitat and occurs above the known elevation range for this species.
MINT FAMILY	LAMIACEAE				
Southern mountains skullcap	<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i>	Federal: None State: None CRPR: 1B.2	Perennial rhizomatous herb. Occurs in mesic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 1,395 to 6,562 feet (425 to 2,000 meters) AMSL. Blooms June through August.	Absent	Not Expected. The BSA does not support suitable soils or habitat and occurs below the known elevation range for this species.
LILY FAMILY	LILIACEAE				
Slender mariposa lily	<i>Calochortus clavatus</i> var. <i>gracilis</i>	Federal: None State: None CRPR: 1B.2	Perennial bulbiferous herb. Occurs in chaparral, coastal scrub, and valley and foothill grassland from 1,050 to 3,280 feet (320 to 1,000 meters) AMSL. Blooms March through November.	Absent	Not Expected. The BSA does not support suitable habitat and occurs below the known elevation range for this species.
Intermediate mariposa lily	<i>Calochortus weedii</i> var. <i>intermedius</i>	Federal: None State: None CRPR: 1B.2	Perennial bulbiferous herb. Occurs in rocky, calcareous soils in chaparral, coastal scrub, and valley and foothill grassland from 345 to 2,805 feet (105 to 855 meters) AMSL. Blooms May through July.	Absent	Not Expected. The BSA does not support suitable soils or habitat.

Table 4-1. Listed, Proposed, and Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
MALLOW FAMILY		MALVACEAE			
Davidson's bush-mallow	<i>Malacothamnus davidsonii</i>	Federal: None State: None CRPR: 1B.2	Perennial deciduous shrub. Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland from 607 to 2,805 feet (185 to 855 meters) AMSL. Blooms June through January.	Absent	Not Expected. The BSA does not support suitable habitat and occurs below the known elevation range for this species.
Salt spring checkerbloom	<i>Sidalcea neomexicana</i>	Federal: None State: None CRPR: 1B.2	Perennial herb. Occurs in alkaline and mesic soils in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas from 50 to 5,020 feet (15 to 1530 meters) AMSL. Blooms March through June.	Absent	Not Expected. The BSA does not support suitable habitat and occurs below the known elevation range for this species.
GRASS FAMILY		POACEAE			
California Orcutt grass	<i>Orcuttia californica</i>	Federal: FE State: SE CRPR: 1B.1	Annual herb. Occurs in vernal pools from 50 to 2,165 feet (15 to 660 meters) AMSL. Blooms April through August.	Absent	Not Expected. The BSA does not support suitable habitat.
PHLOX FAMILY		POLEMONIACEAE			
San Gabriel linanthus	<i>Linanthus concinnus</i>	Federal: None State: None CRPR: 1B.2	Annual herb. Occurs in rocky openings in chaparral and lower and upper montane coniferous forests from 4,987 to 9,186 feet (1,520 to 2,800 meters) AMSL. Blooms April through July.	Absent	Not Expected. The BSA does not support suitable soils or habitat and occurs below the known elevation range for this species.

Table 4-1. Listed, Proposed, and Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
Spreading navarretia	<i>Navarretia fossalis</i>	Federal: FT State: None CRPR: 1B.1	Annual herb. Occurs in chenopod scrub, shallow freshwater marshes and swamps, playas, and vernal pools from 98 to 2,150 feet (30 to 655 meters) AMSL. Blooms April through June.	Absent	Not Expected. The BSA does not support suitable habitat.
Prostrate vernal pool navarretia	<i>Navarretia prostrata</i>	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in mesic soils in coastal scrub, meadows and seeps, alkaline valley and foothill grasslands, and vernal pools from 10 to 3,970 feet (3 to 1,210 meters) AMSL. Blooms April through July.	Absent	Not Expected. The BSA does not support suitable soils or habitat.
BUCKWHEAT FAMILY	POLYGONACEAE				
San Fernando Valley spineflower	<i>Chorizanthe parryi</i> var. <i>fernandina</i>	Federal: FC State: SE CRPR: 1B.1	Annual herb. Occurs in sandy soils in coastal scrub and valley and foothill grassland from 492 to 4,002 feet (150 to 1,220 meters) AMSL. Blooms April through July.	Absent	Not Expected. The BSA does not support suitable habitat and occurs below the known elevation range for this species.
Parry's spineflower	<i>Chorizanthe parryi</i> var. <i>parryi</i>	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in sandy or rocky openings in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland from 902 to 4,002 feet (275 to 1,220 meters) AMSL. Blooms April through June.	Absent	Not Expected. The BSA does not support suitable habitat and occurs below the known elevation range for this species.
Slender-horned spineflower	<i>Dodecahema leptoceras</i>	Federal: FE State: SE CRPR: 1B.1	Annual herb. Occurs in sandy soils in chaparral, cismontane woodland, and alluvial fan sage scrub from 656 to 2,493 feet (200 to 760 meters) AMSL. Blooms April through June.	Absent	Not Expected. The BSA does not support suitable habitat and occurs below the known elevation range for this species.

Table 4-1. Listed, Proposed, and Special-Status Plant Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
ROSE FAMILY		ROSACEAE			
Mesa horkelia	<i>Horkelia cuneata</i> var. <i>puberula</i>	Federal: None State: None CRPR: 1B.1	Perennial herb. Occurs in sandy or gravelly soils in maritime chaparral, cismontane woodland, and coastal scrub from 230 to 2,657 feet (70 to 810 meters) AMSL. Blooms February through September.	Absent	Not Expected. The BSA does not support suitable soils or habitat.
MADDER FAMILY		RUBIACEAE			
San Gabriel bedstraw	<i>Galium grande</i>	Federal: None State: None CRPR: 1B.2	Perennial deciduous shrub. Occurs in broadleaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest from 1,394 to 4,921 feet (425 to 1,500 meters) AMSL. Blooms January through July.	Absent	Not Expected. The BSA does not support suitable habitat and occurs below the known elevation range for this species.
THELYPTERIS FAMILY		THELYPTERIDACEAE			
Sonoran maiden fern	<i>Pelazoneuron puberula</i> var. <i>sonorensis</i>	Federal: None State: None CRPR: 2B.2	Perennial rhizomatous herb. Occurs in meadows, seeps, and streams from 164 to 2,000 feet (50 to 610 meters) AMSL. Blooms January through September.	Absent	Not Expected. The BSA does not support suitable habitat.

Notes:

AMSL=above mean sea level; BSA=biological study area; CRPR=California Rare Plant Rank; FE=Federally Endangered; FT=Federally Threatened; FC=Federal Candidate for listing; SE=State Endangered; ST=State Threatened

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

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

0.1 Seriously endangered in California

0.2 Fairly endangered in California

0.3 Not very endangered in California

Table 4-2. Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
FISH					
Southern California distinct population segment of steelhead	<i>Oncorhynchus mykiss</i>	FE	Freshwater streams as juveniles, open ocean as adults.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
AMPHIBIANS					
AMPHIBIA					
Arroyo toad	<i>Anaxyrus californicus</i>	FE, SSC	Breeding habitat = slow-moving streams with shallow pools, nearby sandbars, and adjacent stream terraces. Often breed in shallow, sandy pools bordered by sand/gravel flood terraces. Inhabit upland habitats when not breeding, such as sycamore-cottonwood woodlands, oak woodlands, coastal sage scrub, chaparral, and grassland.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Southern mountain yellow-legged frog	<i>Rana muscosa</i>	FE, SE	Streams, rivers, perennial creeks with bank and pool substrates. Open gravel banks and rocks projecting above or just beneath the surface and downed logs and branches.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Western spadefoot	<i>Spea hammondi</i>	SSC	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pool, and wetlands.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Coast range newt	<i>Taricha torosa</i>	SSC	Wet forests, oak forests, chaparral, and rolling grasslands.	Absent	Not Expected. The BSA lacks suitable habitat for this species.

Table 4-2. Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
REPTILES	REPTILIA				
California legless lizard	<i>Anniella</i> sp. 1	SSC	Chaparral, coastal dunes, desert scrub, and washes.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Southern California legless lizard	<i>Anniella stebbinsi</i>	SSC	Sparsely vegetated areas of beach dunes, chaparral, pine-oak woodland, desert scrub, sandy washes, and stream terraces.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
California glossy snake	<i>Arizona elegans occidentalis</i>	SSC	Arid scrub, rocky washes, grasslands, chaparral.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Coastal whiptail	<i>Aspidoscelis tigris stejnegeri</i>	SSC	Chaparral, woodland, and riparian habitats.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Western pond turtle	<i>Emys marmorata</i>	SSC	Aquatic, artificial flowing waters, marshes, swamps, and wetlands.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Coast horned lizard	<i>Phrynosoma blainvillii</i>	SSC	Chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, riparian scrub, riparian woodland, and valley and foothill grasslands.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Two-striped garter snake	<i>Thamnophis hammondi</i>	SSC	Marshes, swamps, riparian scrub, riparian woodland, and wetlands.	Absent	Not Expected. The BSA lacks suitable habitat for this species.

Table 4-2. Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
INSECTS		ARTHROPODA			
Monarch Butterfly	<i>Danaus plexippus</i>	Candidate	Wide ranging based on presence of host plants. Typically found near agricultural fields, pastureland, prairie remnants, urban and suburban areas, gardens, roadsides.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
BIRDS		AVES			
Tricolored blackbird	<i>Agelaius tricolor</i>	SSC	Cattail or tule marshes. Forages in fields, farms. Nests in large freshwater marshes, in dense stands of cattails or bulrushes.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Burrowing owl	<i>Athene cunicularia</i>	SSC	Coastal prairie, coastal scrub, and valley and foothill grassland.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Swainson’s hawk	<i>Buteo swainsoni</i>	ST	Prairies, grasslands, agricultural fields, pastures, and other open habitats.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FT, SE	Riparian forest.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Yellow rail	<i>Coturnicops noveboracensis</i>	SSC	Densely vegetated marshes.	Absent	Not Expected. The BSA lacks suitable habitat for this species.

Table 4-2. Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
Black swift	<i>Cypseloides niger</i>	SSC	Nests on sea coast cliffs, waterfalls, and caves.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE, SE	Nests in early successional, willow-dominated riparian habitats.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
American peregrine falcon	<i>Falco peregrinus anatum</i>	CFP	Nests on cliffs with open habitat along barrier islands, mudflats, coastlines, lake edges, and mountain chains.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Coastal California gnatcatcher	<i>Polioptila californica</i>	FT, SSC	Coastal sage scrub dominated by California sagebrush (<i>Artemisia californica</i>).	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Bank swallow	<i>Riparia riparia</i>	ST	Chaparral, cismontane woodland, and lower montane coniferous forest.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Least Bell's vireo	<i>Vireo bellii pusillus</i>	FE, SE	Dense brush and mesquite associated with riparian systems, willow-cottonwood forest, and streamside thickets.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
MAMMALS	MAMMALIA				
Pallid bat	<i>Antrozous pallidus</i>	SSC	Chaparral, coastal scrub, riparian woodland, upper montane coniferous forest, and valley and foothill grasslands. This species is known to roost in bridges.	Present	Not Expected. There is suitable foraging habitat available in surrounding areas within this species' 3- to

Table 4-2. Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
					6-mile foraging range. However, this species is highly intolerant of urban development (Miner and Stokes 2005).
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	SSC	Variety of locations that range from coniferous forests and woodlands, deciduous riparian woodland, semi-desert and montane shrublands.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Western mastiff bat	<i>Eumops perotis californicus</i>	SSC	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grasslands. Roosts in rock crevices, may roost in bridges, although not documented to do so in California.	Present	Low potential for roosting in bridges within the BSA. Suitable foraging habitat does not occur within the BSA but is available in surrounding areas.
Western yellow bat	<i>Lasiurus xanthinus</i>	SSC	Valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. May roost in native or non-native trees, including planted (ornamental) trees such as palm or other trees. Does not roost in bridges.	Present	Low potential for occurrence in BSA in naturally occurring or planted (ornamental) trees.
South coast marsh vole	<i>Microtus californicus stephensi</i>	SSC	Tidal marsh habitat.	Absent	Not Expected. The BSA lacks suitable habitat for this species.

Table 4-2. Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/Absent	Rationale
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	SSC	Coastal scrub habitat.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	SSC	Rugged cliffs, and high rocky outcrops and slopes.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Big free-tailed bat	<i>Nyctinomops macrotis</i>	SSC	Rugged cliffs, and high rocky outcrops and slopes.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
Southern grasshopper mouse	<i>Onychomys torridus ramona</i>	SSC	Chenopod scrub habitat.	Absent	Not Expected. The BSA lacks suitable habitat for this species.
American badger	<i>Taxidea taxus</i>	SSC	Variety of habitats, including chaparral, chenopod scrub, cismontane woodland, freshwater marsh, swamps, meadows and seeps, riparian forest, riparian scrub, riparian woodland, and valley and foothill grassland.	Absent	Not Expected. The BSA lacks suitable habitat for this species.

Notes:

Federal: FE=Federally Endangered; FT=Federally Threatened

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

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4.2.5 Protected Trees and Shrubs

The BSA is located in the City of Los Angeles and would be subject to the City's Protected Tree and Shrub Regulations (Ordinance No. 186873). In addition, the BSA is located within LA Metro ROW and would be subject to LA Metro's Tree Policy. Western sycamore trees occur within the BSA and are a protected tree species under this ordinance. There are no protected shrub species that occur within the BSA.

4.3 Jurisdictional Areas

Waters of the U.S. includes all waters used or susceptible to use in interstate or foreign commerce, all interstate waters and wetlands, and all other waters that could affect interstate or foreign commerce. The eastern edge of the BSA is adjacent to Los Angeles River; however, the only waters subject to federal jurisdiction within the BSA is the reach of the Los Angeles River located below the North Main Street Bridge because this is the only geographic area where Project components traverse over the Los Angeles River. The Los Angeles River is a concrete-lined flood control channel surrounded by urban, commercial, residential, and industrial development. Proposed safety improvements on the North Main Street Bridge would be limited to the area above the surface of the bridge; therefore, the river was not delineated.

According to a USACE guidance document (USACE 2008b), USACE generally would not assert jurisdiction over the following features: swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) and ditches (including roadside ditches) excavated wholly in and draining only uplands that generally do not carry a relatively permanent flow of water. Two ditches are present within the BSA (Figure 4-3). The first ditch is located west of the existing railroad tracks; east of a disturbed lot containing trees, bushes, and nonnative vegetation; and north of Alpine Street (Figure 4-3). A chain-link fence prevented access to the ditch, which was overgrown with vegetation, during general biological surveys. The second ditch is located along the fence line on the corner of Commercial Street and Center Street (Figure 4-3; Appendix C, Photograph 7). This ditch flows into an existing storm drain. These two ditches were constructed in uplands and are, therefore, proposed non-jurisdictional⁵.

No wetlands are located within the BSA.

⁵ Final determination of jurisdiction rests with the USACE Los Angeles District.

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5.0 Environmental Consequences

The effects analysis considers both the duration (short term or long term) and the intensity or magnitude (low, moderate, or substantial) of potential effects.

5.1 Natural Communities of Special Concern

Construction and operation of the Build Alternative would have no effect on any natural communities of special concern because none of these communities are located within or adjacent to the BSA. Waters of the U.S., also considered special-status by the USACE, are discussed in more detail in Section 5.5.

Under the No Action Alternative, the proposed improvements would not be implemented, and existing conditions in the BSA would remain. No effect on natural communities of special concern would occur.

5.2 Special-Status Plant Species

Eleven of the 37 special-status plant species evaluated for their potential to occur within the BSA are federally and/or state-listed as endangered, threatened, or candidate species. These species include San Diego button-celery (*Eryngium aristulatum* var. *parishii*), Nevin's barberry (*Berberis nevinii*), Gambel's water cress (*Nasturtium gambelii*), marsh sandwort (*Arenaria paludicola*), Braunton's milkvetch (*Astragalus brauntonii*), Ventura marsh milkvetch (*Astragalus pycnostachyus* var. *lanosissimus*), coastal dunes milkvetch (*Astragalus tener* var. *titi*), California Orcutt grass (*Orcuttia californica*), spreading navarretia (*Navarretia fossalis*), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), and slender-horned spineflower (*Dodecahema leptoceras*).

No federally or state-listed, candidate, or other special-status plant species were observed during the general biological survey and habitat assessment conducted in 2015. None of these species is expected to occur within or in the vicinity of the BSA due to a lack of suitable soils and/or habitat or because the BSA occurs outside of the known elevation range of the plant species listed in Table 4-1.

Construction and operation of the Build Alternative would have no effect on any federally or state-listed, candidate, or other special-status plant species. Therefore, no mitigation would be required.

Under the No Action Alternative, the proposed improvements would not be implemented, and existing conditions in the BSA would remain. No effect on special-status plant species would occur.

5.3 Special-Status Animal Species

Nine of the 34 special-status animal species evaluated for their potential to occur within the BSA are federally and/or state-listed as endangered, threatened, or candidate species. These species include arroyo toad (*Anaxyrus californicus*), southern mountain yellow-legged frog (*Rana muscosa*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), American peregrine falcon (*Falco peregrinus anatum*), coastal California gnatcatcher (*Polioptila californica californica*), bank swallow (*Riparia riparia*), and least Bell's vireo (*Vireo bellii pusillus*). No special-status animal species were observed in the BSA during the general biological survey and habitat assessment survey conducted in 2015. An additional survey was conducted in 2023 to verify mapped vegetation communities have not changed since 2015. In 2015, the BSA did not include suitable habitat for federally listed or candidate plant or wildlife species. Based on the survey conducted in 2023, the disturbed habitat present within the Project study area has not changed notably since 2015 to become suitable habitat for federally listed plant or wildlife species. Therefore, no updated surveys are recommended.

The BSA either does not contain suitable habitat or designated critical habitat for animal species that are federally listed or candidates for listing by USFWS, or it is outside the known geographic ranges of these animal species. Therefore, there are no direct or indirect effects on federally listed or candidate plant or animal species during construction and, hence, no need for Section 7 consultation under the Endangered Species Act.

As discussed in Section 4.2.2, the CNDDDB record searches indicated 34 special-status wildlife species with known occurrences within the nine 7.5-minute quadrangles including and surrounding the BSA. With exception of western mastiff bats or western yellow bats, the Build Alternative would have no direct or indirect effects on special-status species during construction because no suitable habitat is present in the BSA.

Removal of naturally occurring or ornamental (planted) trees, including palms, may result in direct effects on western mastiff bat and western yellow bat that may use these areas to roost, if present in the BSA. Track work and bridge modifications at Vignes Street and Cesar Chavez Avenue may also result in potential direct and indirect construction-related effects in the full build-out condition. The Vignes Street and Cesar Chavez Avenue bridge falsework and construction work areas would be situated to avoid flight paths of special-status bat species, if present, to minimize potential construction-related effects, including abandonment of roost sites. Safety improvements at the North Main Street Bridge crossing of the Los Angeles River would not be conducted on the underside of the bridge where bats could be roosting.

No western mastiff bats or western yellow bats were observed within the BSA during the general biological survey; however, surveys were conducted during the daytime when bats are typically roosting and more difficult to observe. In addition, given the presence of suitable habitat and the amount of time that would elapse before actual construction commences, it is possible that western mastiff bat or western yellow bat roosting and maternity sites could be located

within or adjacent to the BSA. If construction occurs during the bat maternity season (May 1 through August 31), there is a potential for maternity site abandonment to occur on western mastiff bats as a result of construction activities in the vicinity of bridges and on western yellow bats as a result of removal of naturally occurring or planted (ornamental) trees, including palm trees. This is considered an adverse effect. However, with the implementation of Mitigation Measure BIO-1 (described in more detail in Section 6.0), which requires preconstruction surveys for roosting special-status bats (including western mastiff bats and western yellow bats) and other native bat species to be conducted by a Metro-approved qualified bat biologist within 2 weeks prior to construction, effects on bridge-roosting bats would be minimized through the provision of passive exclusion and use of alternative roosting structures. In addition, Mitigation Measure BIO-1 would minimize effects on tree-nesting bats by requiring tree removal to occur outside of the bat maternity season. Upon implementation of Mitigation Measure BIO-1, no direct adverse effects would occur during construction.

Once operational, the Build Alternative would involve increased train traffic and periodic maintenance of Metro's ROW. Based on the limited availability of suitable habitat for special-status bat species within the BSA, the corresponding effects of operations on each species (i.e., increased risk of a maternity roost being disturbed by maintenance activities or vibration, noise and dust resulting from increased train traffic) are not anticipated to substantially reduce the regional population size of these species. Therefore, no direct adverse effects would occur during operation.

Under the No Action Alternative, the proposed infrastructure would not be implemented, and existing conditions in the BSA would remain. No effect on special-status wildlife species would occur.

5.4 Nesting Birds

Suitable habitat that would support breeding, roosting, and foraging birds protected by the MBTA, including mature trees (greater than 24 inches in diameter), utility poles, building rafters and eaves, and bridges, occurs throughout the BSA. Construction of the track and bridge improvements at the Vignes Street Bridge and Cesar Chavez Avenue Bridge, and the safety improvements at the North Main Street Bridge, in addition to other construction activities associated with the Build Alternative such as the platform canopy construction, have the potential to directly affect nesting birds protected by the MBTA. Direct effects on an active nest, including removal of mature trees and bridge improvements, would be considered adverse because they could result in moderate reductions in populations of these species. Implementation of Mitigation Measure BIO-2 (described in more detail in Section 6.0) requires vegetation removal (mature trees greater than 24 inches in diameter) to occur outside of the breeding season or conducting preconstruction surveys prior to vegetation removal in areas with suitable nesting habitat if vegetation removal cannot be conducted outside of the nesting season. If nesting birds are found during preconstruction surveys, Mitigation Measure BIO-2 requires the biologist to establish an exclusionary buffer suitable to prevent nest disturbance. Exclusionary devices will be installed over suitable nest sites to prevent nesting at the bridges,

buildings, or other structures by bridge- and crevice-nesting birds (i.e., swifts and swallows). In addition, prior to the start of construction, all Project personnel and contractors who will be on site during construction will complete a mandatory Worker Environmental Awareness Program training conducted by the Project Biologist or a designated qualified biologist. Implementation of Mitigation Measure BIO-2 would minimize potential for adverse construction effects on bird species protected by the MBTA. Therefore, with the implementation of Mitigation Measure BIO-2, no direct adverse effects would occur during construction.

Any birds utilizing the BSA for breeding during operations are expected to be urban-adapted. Therefore, direct effects of operations on these species (i.e., increased risk of being struck by a train) are not anticipated to substantially reduce regional population sizes as effects are considered minor and short term. Therefore, no direct adverse effects would occur during operation.

Construction and operation of the Build Alternative could result in indirect effects on bird species protected by the MBTA that are present within the BSA. Indirect effects on an active nest may include increased noise, vibration, dust, night lighting, and human encroachment, reducing nesting success. Implementation of Mitigation Measure BIO-2 requires vegetation removal to occur outside of the breeding season or conducting preconstruction surveys prior to vegetation removal in areas with suitable nesting habitat if vegetation removal cannot be conducted outside of the nesting season. If nesting birds are found during preconstruction surveys, Mitigation Measure BIO-2 requires the Project Biologist or a designated qualified biologist to establish an exclusionary buffer suitable to prevent nest disturbance. With implementation of Mitigation Measure BIO-2, indirect effects would be minimized on birds protected under the MBTA during construction because the nest buffer would be of sufficient size to avoid indirect effects on nesting birds.

Under the No Action Alternative, the proposed infrastructure would not be implemented, and existing conditions in the BSA would remain. No construction effects on nesting birds protected by the MBTA would occur. Operational effects on nesting birds protected by the MBTA may result from continuation of existing freight and passenger services. Nesting birds in the BSA are presumably well adapted to these activities. Therefore, a continuation of existing conditions is expected, and no direct or indirect effects would occur.

5.5 Jurisdictional Areas

Construction of the Build Alternative would occur outside the boundaries of the concrete-lined reach of the Los Angeles River channel (i.e., above the North Main Street Bridge crossing of the Los Angeles River) and would not modify or otherwise affect the existing channel in this area or any other construction areas. Construction and operation of the Build Alternative would have no direct effect on USACE waters of the U.S., including wetlands or CDFW streambeds. Therefore, no mitigation would be required.

Indirect effects, as a result of Project implementation, may include stormwater runoff from construction into the adjacent Los Angeles River. However, the Build Alternative would be

required to comply with the National Pollutant Discharge Elimination System Program, which includes preparation and implementation of a Stormwater Pollution Prevention Plan to minimize potentially water quality effects to the Los Angeles River.

As discussed above, the two ditches present within the BSA (Figure 4-3) were constructed in uplands and are proposed to be non-jurisdictional.

Under the No Action Alternative, the proposed infrastructure would not be implemented, and existing conditions in the BSA would remain. No effect on jurisdictional areas would occur.

5.6 Wildlife Movement

Construction of the Build Alternative would include safety improvements at the North Main Street Bridge. These safety improvements will be designed to avoid impacts to the Los Angeles River and would, therefore, not temporarily obstruct local north-to-south wildlife movement that may be occurring via the Los Angeles River. In addition, there were no sensitive species observed during the survey within the BSA and the nearest large open spaces are 5 miles from the BSA. The BSA is within a heavily developed urban area and the I-5 and SR-110 act as barriers to possible wildlife movement. Furthermore, construction of the Build Alternative would occur 0.8 mile from Arroyo Seco and would not have any direct effects on local east-to-west movements that may be occurring there. Therefore, no direct adverse effects on wildlife movement would occur during construction.

Once operational, the Build Alternative would involve increased train traffic and periodic maintenance of Metro's ROW. However, operations would not obstruct local north-to-south wildlife movement that may occur via the Los Angeles River or local east-to-west movements that may occur via the Arroyo Seco. Therefore, no direct adverse effects on wildlife movement would occur during operation of the Build Alternative.

Noise and lighting from Project construction and operation could indirectly affect what limited wildlife movement occurs in the Los Angeles River by interfering with an animal's ability to communicate, navigate, and avoid predators or other dangers if such noise is substantially above what is typical under existing conditions and if nighttime lighting is directed toward the river. However, given the unvegetated, concrete-lined nature of the river and the urban nature of the surroundings, including the presence of transportation infrastructure that contributes to background noise under existing conditions, animal species utilizing the river are expected to be urban-adapted. In addition, lighting would not be directed toward the river, so is not expected to affect wildlife movement. Therefore, these species are not anticipated to substantially reduce their regional population sizes or interfere substantially with their movement as these effects are considered minor and short term. Construction and operation of the Build Alternative would not result in indirect adverse effects on habitat connectivity or wildlife movement. Therefore, no mitigation is required.

Under the No Action Alternative, the proposed infrastructure would not be implemented, and existing conditions in the BSA would remain. No indirect effects would occur.

5.7 Protected Trees and Shrubs

The Build Alternative may require the removal or disturbance of one or more native tree species (western sycamore or other species observed during reconnaissance surveys) that are considered protected trees under the City of Los Angeles Protected Tree and Shrub Regulations (Ordinance No. 186873) and LA Metro Tree Policy. The removal of protected trees without a permit would conflict with Ordinance No. 186873 and could be considered an adverse effect if not avoided. Mitigation Measure BIO-3 (described in more detail in Section 6.0) requires a registered consulting arborist to conduct a preconstruction survey for protected trees pursuant to Ordinance No. 186873 within 120 days prior to construction. The locations and sizes of all protected trees will be identified prior to construction and overlaid on Project footprint maps to determine which trees may be removed or replaced in accordance with Ordinance No. 186873. Native trees protected by Ordinance No. 186873 will not be removed without approval by the City of Los Angeles. Therefore, with the implementation of Mitigation Measure BIO-3, no direct adverse effects would occur during construction.

Once constructed, the Build Alternative would not require the removal of additional trees. Future maintenance activities would be required throughout the duration of operation, and limited pruning or vegetation clearing would be required to keep the railroad corridor free of debris. Vegetation maintenance activities would be limited to the railroad ROW and would not extend into sensitive habitats. Therefore, no direct adverse effects related to tree removal would occur during operations.

Trenching, grading, soil compaction, and the placement of fill or impervious surfaces within the driplines of protected trees could lead to root damage ultimately resulting in death of the tree. This could be considered an adverse effect if not avoided because the Build Alternative could result in the death of a protected tree. Mitigation Measure BIO-3 requires a registered consulting arborist to conduct a preconstruction survey for protected trees pursuant to Ordinance No. 186873 at least 120 days prior to construction. The locations and sizes of all protected trees will be identified prior to construction and overlaid on Project footprint maps to determine which trees may be removed or relocated prior to construction in accordance with Ordinance No. 186873. With the implementation of Mitigation Measure BIO-3, no indirect adverse effects related to tree removal would occur.

Under the No Action Alternative, the proposed infrastructure would not be implemented and existing conditions in the BSA would remain. No effects to protected trees and shrubs would occur.

5.8 Cumulative Effects

Implementation of Measure BIO-1 would avoid or minimize short-term, temporary construction-related direct and indirect effects on special-status and maternity roosting bat species, if present within the BSA. Long-term, permanent effects on special-status bat species determined to be present within the BSA may occur through the removal of naturally occurring or planted

(ornamental) trees (e.g., palm or other trees) that provide suitable roosting habitat. However, the Build Alternative would include landscaping of trees (including palm trees) that have the potential to provide roosting habitat for bats. Therefore, the loss of this habitat, in combination with other cumulative projects, is not anticipated to be substantial relative to available foraging and roosting habitat throughout the range for these species, which encompasses a variety of habitats located throughout California.

Implementation of Mitigation Measure BIO-2 (described in Section 6.0) would avoid or minimize temporary construction-related direct and indirect effects on nesting birds protected by the MBTA, if present within the BSA. Long-term effects on nesting birds protected by the MBTA are not anticipated because the loss of suitable nesting habitat within the highly urbanized BSA (planted trees) would be minimal. Therefore, the Build Alternative, in combination with other cumulative projects, are not anticipated to result in substantial cumulative effects on nesting birds protected by the MBTA.

The Build Alternative would not result in any loss of natural habitats that would support any other special-status animal species known to occur in the area. Therefore, the Build Alternative, in combination with other cumulative projects, is not anticipated to result in cumulative effects on special-status animal species and special-status plant species.

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6.0 Mitigation Measures

Implementation of the following mitigation measure would minimize potential for adverse effects on biological and wetland resources.

BIO-1 Bats: Preconstruction surveys for roosting special-status bats (including western mastiff bats and western yellow bats) and other native bat species shall be conducted by a Metro and/or CDFW-approved qualified bat biologist within 2 weeks prior to construction. Surveys shall be conducted where suitable habitat and/or bridge structures that will be removed or have modifications to the substructure are present. All locations with suitable roosting habitat (including potential maternity roosts) shall be surveyed using an appropriate combination of structure inspection, exit counts, acoustic surveys, or other suitable methods. Surveys shall be conducted during the appropriate season and time of day/night to ensure detection of day- and night-roosting bats (i.e., preferably one daytime and one nighttime survey shall be conducted at each location with suitable roosting habitat during the maternity season, May 1 through August 31). If no roosts are detected, trees that provide suitable roosting habitat may be removed under the guidance of the qualified bat biologist.

If a roost is detected, passive exclusion shall include monitoring the roost for 3 days to determine if the roost is active. If the roost is determined to support a reproductive female with young, the roost shall be avoided until it is no longer active. If the roost remains active during the 3 monitoring days and observations confirm it is not a maternity colony, a temporary bat exclusion device shall be installed under the supervision of a Metro and/or CDFW-approved qualified bat biologist. At the discretion of the biologist, based on his or her expertise, an alternative roosting structure(s) may be constructed and installed prior to the installation of exclusion devices. Exclusion shall be conducted during the fall (September or October) to avoid trapping flightless young inside during the summer months or torpid (overwintering) individuals during the winter. If it cannot be determined whether an active roost site supports a maternity colony, the roost site shall not be disturbed, and construction within 300 feet shall be postponed or halted until the roost is vacated and the young are volant (able to fly). Exclusion efforts shall be monitored on a weekly basis and continued for the duration of project construction activities and removed when no longer necessary.

The following avoidance and minimization measures shall be implemented during construction:

- All work conducted on bridges shall occur during the day. If this is not feasible, lighting and noise shall be directed away from night roosting and foraging areas.

- Combustion equipment (such as generators, pumps, and vehicles) shall not be parked or operated under a bridge. Construction personnel shall not be present directly under a roosting colony. Construction activities shall not severely restrict airspace access to the roosts.
- Removal of mature trees that provide suitable bat roosting habitat shall be conducted outside of the maternity season (May 1 through August 31); that is, removal shall be conducted between September 1 and April 30. Because bats may be present in a torpid state during the winter, suitable roosting habitat shall be removed before the onset of cold weather, generally when temperatures drop below 40 degrees Fahrenheit (approximately November 1) or as determined by a qualified bat biologist). Should removal of mature trees that provide suitable bat roosting habitat be necessary after the cold weather, a qualified bat biologist shall conduct pre-construction surveys when temperatures are greater than 40 degrees Fahrenheit to ensure that bats are not present during removal.
- When removing palm trees, the dead fronds shall be removed first before felling the palm to allow any bats to escape.

BIO-2 MBTA Species: Vegetation removal shall be conducted outside of the bird nesting season (February 1 through September 30) to the extent feasible. If vegetation removal cannot be conducted outside of the nesting season, a Metro and/or CDFW-approved qualified avian biologist shall conduct preconstruction surveys to locate active nests within 72 hours prior to vegetation removal in each area with suitable nesting habitat throughout the BSA. If nesting birds are found during preconstruction surveys, an exclusionary buffer (150 feet for passerines and 500 feet for raptors) suitable to prevent nest disturbance shall be established by the biologist. The buffer may be reduced based on species-specific and site-specific conditions as determined by the qualified biologist. This buffer shall be clearly marked in the field by construction personnel under the guidance of the biologist and construction or vegetation removal shall not be conducted within the buffer until the biologist determines that the young have fledged or the nest is no longer active.

Exclusionary devices (hard surface materials, such as plywood or plexiglass, flexible materials, such as vinyl, or a similar mechanism that keeps birds from building nests) shall be installed over suitable nest sites at the bridges, buildings, or structures that will be removed or that will have modifications to the substructure before the nesting season (February 1 through September 30) to prevent nesting at the bridges, building, or other structures by bridge- and crevice-nesting birds (i.e., swifts and swallows). Netting shall not be used as an exclusionary material because it can injure or kill birds, which would be in violation of the MBTA.

In addition, if work on bridges, buildings, or other structures with potential nest sites that will be removed or that will have modifications to the substructure is to be conducted between February 1 and September 30, all bird nests shall be removed

prior to February 1. Immediately prior to nest removal, a qualified biologist shall inspect each nest for the presence of torpid bats, which are known to use old swallow nests. Removal of partially constructed nests shall be conducted under the guidance and observation of a qualified biologist. Removal of partially constructed swallow nests on bridges that are under construction shall be repeated as frequently as necessary to prevent nest completion. Removal of nest materials and exclusion device installation shall be monitored by a qualified biologist. Such exclusion efforts shall be continued to keep the structures free of swallows until October or the completion of construction.

All Project personnel and contractors who will be on site during construction shall complete mandatory training conducted by the Project Biologist or a designated qualified biologist. Any new Project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory Worker Environmental Awareness Program training before they commence with work. The training shall advise workers of potential impacts on biological and potentially jurisdictional resources. At a minimum, the training shall include the following topics: (1) locations where special-status species may occur; (2) the purpose for resource protection; (3) protective measures to be implemented in the field; (4) environmentally responsible construction practices; and (5) the protocol to resolve conflicts that may arise at any time during the construction process.

BIO-3 Protected Trees: Preconstruction surveys for protected trees (native trees 4 inches or more in cumulative diameter, as measured at 4.5 feet above the ground level, that are subject to protection under the City of Los Angeles Protected Tree and Shrub Regulations (Ordinance No. 186873) and LA Metro’s Tree Policy, (Valley Oak [*Quercus lobata*], California Live Oak [*Quercus agrifolia*], or any other tree of the oak genus indigenous to California but excluding the Scrub Oak [*Quercus berberidifolia*]), southern California black walnut (*Juglans californica*), western sycamore (*Platanus racemora*), and California bay (*Umbellularia californica*) shall be conducted by a registered consulting arborist with the American Society of Consulting Arborists at least 120 days prior to construction. The locations and sizes of all protected trees shall be identified prior to construction and overlaid on Project footprint maps to determine which trees may be protected in accordance with Ordinance No. 186873. The registered consulting arborist shall prepare a Protected Tree Report and shall submit three copies to the City of Los Angeles Department of Public Works. Any protected trees that must be removed due to Project construction shall be replaced at a 2:1 ratio (or up to a 4:1 ratio for protected trees on private property) except when the protected tree is relocated on the same property, the City of Los Angeles has approved the tree for removal, and the relocation is economically reasonable and favorable to the survival of the tree. Each replacement tree shall be at least a 15-gallon specimen, measuring 1 inch or more in diameter, 1 foot above the base, and shall be at least 7 feet in height measured from the base.

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7.0 Conclusions

7.1 Federal Endangered Species Act Consultation Summary

The Build Alternative does not have the potential to affect any species listed or candidates for listing under the Endangered Species Act. Therefore, no consultation with USFWS is necessary, and no mitigation is required.

7.2 California Endangered Species Act Summary

The California Endangered Species Act protects plant and animal species that are state-listed as rare, threatened, or endangered. CDFW authorizes take of endangered, threatened, or candidate species through the provisions of Sections 2081 and 2081.1 of the California Fish and Game Code. No adverse effects on state-listed species or candidates for state listing are anticipated to occur. Therefore, authorization from CDFW for take of any endangered, threatened, or candidate species is not required for the Build Alternative.

7.3 Regulatory Permits

No drainages, streambeds, or other features subject to USACE, CDFW, or Regional Water Quality Control Board jurisdiction would be adversely affected by the Build Alternative. Therefore, no regulatory permits are required for the Build Alternative.

7.4 Invasive Plant Species

Most of the plant species observed within the BSA are nonnative, and several species are considered invasive (high or moderate invasive rankings) by the California Invasive Plant Council. Due to the large amount of developed land and disturbed habitat already present in the BSA, the Build Alternative is not expected to result in an increase in the introduction or spread of nonnative invasive plant species. Therefore, no mitigation would be required.

7.5 Migratory Bird Treaty Act

As mentioned in Sections 4.2.2 and 5.3, suitable habitat for nesting birds protected by the MBTA occurs in the BSA. Effects on nesting birds protected by the MBTA would be considered short term, and adverse. Implementation of Mitigation Measure BIO-2 (described in Section 6.0) would minimize potential for adverse effects on nesting birds protected by the MBTA.

7.6 Wildlife Movement

As discussed in Section 4.2.4, construction and operation of the Build Alternative would not obstruct or adversely affect wildlife movement. While noise and lighting produced during

construction and operations could affect wildlife movement in the Los Angeles River, any wildlife utilizing the river would be adapted to the unvegetated surrounding and existing background noise. Therefore, no direct or indirect effects on wildlife crossings would occur during construction or operation and no mitigation is required.

7.7 Conflicts with Tree Ordinance

As discussed in Section 4.2.5, the Build Alternative could result in the removal or disturbance of native tree species protected under Ordinance No. 186873 and LA Metro’s Tree Policy. While 98 percent of the BSA is categorized as urban/developed, western sycamore trees occur within the BSA and are a protected tree species under this ordinance. The removal of protected trees without a permit would conflict with Ordinance No. 186873 and could be considered an adverse effect if not avoided. However, with implementation of Mitigation Measure BIO-3, preconstruction surveys for protected trees would be conducted at least 120 days prior to construction and native protected trees will not be removed without approval by the City of Los Angeles. With the implementation of Mitigation Measure BIO-3, no direct or indirect adverse effects related to tree removal would occur during construction. No indirect or direct adverse effects related to tree removal would occur during operation and mitigation is not required.

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Appendix A: Literature Review

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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

In Reply Refer To:
Project Code: 2023-0128163
Project Name: Link US

September 12, 2023

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

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, 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 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 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 at the Fish and Wildlife Service's Endangered Species Consultation website at:

<https://www.fws.gov/service/esa-section-7-consultation>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

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 Code 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

Project Code: 2023-0128163

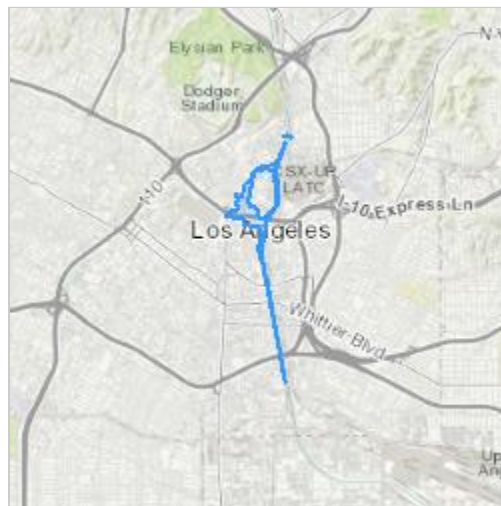
Project Name: Link US

Project Type: Railroad - Maintenance/Modification

Project Description: Los Angeles Union Station (LAUS) is located at 800 North Alameda Street in the City of Los Angeles, California. LAUS is bounded by US-101 to the south, Alameda Street to the west, Cesar E. Chavez Avenue to the north, and Vignes Street to the east. The FRA and Metro are proposing the Link US Project to transform LAUS from a “stub-end tracks station” into a “run-through tracks station” with a new passenger concourse that would serve LAUS as a multimodal modern station into the future to improve the efficiency of the station and accommodate future growth and transportation demands in the region.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.067779200000004,-118.2253904439053,14z>



Counties: Los Angeles County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 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 Fisheries¹, 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.

-
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.

BIRDS

NAME	STATUS
Coastal California Gnatcatcher <i>Polioptila californica californica</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: HDR Engineering Inc
Name: Ronell Santos
Address: 591 Camino de la Reina
Address Line 2: Suite 300
City: San Diego
State: CA
Zip: 92108
Email: ronell.santos@hdrinc.com
Phone: 8587128254



United States Department of the Interior



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

In Reply Refer To:
Consultation Code: 08ECAR00-2018-SLI-0791
Event Code: 08ECAR00-2021-E-00437
Project Name: LINK US

November 12, 2020

Subject: Updated 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: 08ECAR00-2018-SLI-0791

Event Code: 08ECAR00-2021-E-00437

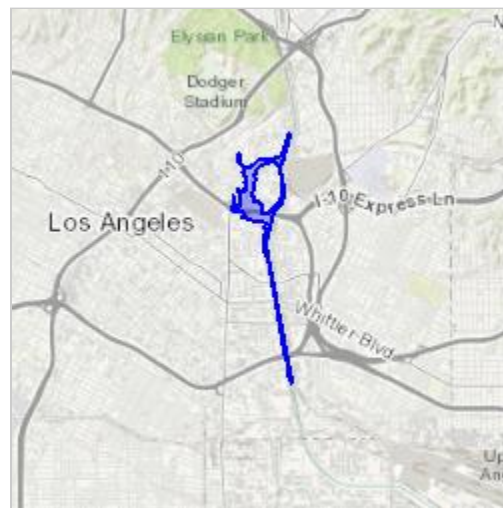
Project Name: LINK US

Project Type: TRANSPORTATION

Project Description: Los Angeles Union Station (LAUS) is located at 800 North Alameda Street in the City of Los Angeles, California. LAUS is bounded by US-101 to the south, Alameda Street to the west, Cesar E. Chavez Avenue to the north, and Vignes Street to the east. The FRA and Metro are proposing the Link US Project to transform LAUS from a “stub-end tracks station” into a “run-through tracks station” with a new passenger concourse that would serve LAUS as a multimodal modern station into the future to improve the efficiency of the station and accommodate future growth and transportation demands in the region.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/34.04536466202809N118.23016350502527W>



Counties: Los Angeles, CA

Endangered Species Act Species

There is a total of 1 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 Fisheries¹, 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.

-
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.

Birds

NAME	STATUS
Coastal California Gnatcatcher <i>Polioptila californica californica</i> 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

Critical habitats

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



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Los Angeles (3411812) OR Hollywood (3411813) OR Burbank (3411823) OR Pasadena (3411822) OR El Monte (3411811) OR Whittier (3311881) OR South Gate (3311882) OR Inglewood (3311883) OR Mt. Wilson (3411821))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S4	WL
<i>Anniella spp.</i> California legless lizard	ARACC01070	None	None	G3G4	S3S4	SSC
<i>Anniella stebbinsi</i> Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Arctostaphylos glandulosa ssp. gabrielensis</i> San Gabriel manzanita	PDERI042P0	None	None	G5T3	S3	1B.2
<i>Arenaria paludicola</i> marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
<i>Arizona elegans occidentalis</i> California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
<i>Astragalus brauntonii</i> Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
<i>Astragalus tener var. titi</i> coastal dunes milk-vetch	PDFAB0F8R2	Endangered	Endangered	G2T1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S2	SSC
<i>Atriplex coulteri</i> Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
<i>Atriplex parishii</i> Parish's brittlescale	PDCHE041D0	None	None	G1G2	S1	1B.1
<i>Atriplex serenana var. davidsonii</i> Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
<i>Berberis nevini</i> Nevin's barberry	PDBER060A0	Endangered	Endangered	G1	S1	1B.1
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Bombus pensylvanicus</i> American bumble bee	IIHYM24260	None	None	G3G4	S2	
<i>Brennania belkini</i> Belkin's dune tabanid fly	IIDIP17010	None	None	G1G2	S1S2	



Selected Elements by Scientific 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
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
<i>California Walnut Woodland</i> California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
<i>Calochortus clavatus var. gracilis</i> slender mariposa-lily	PMLIL0D096	None	None	G4T2T3	S2S3	1B.2
<i>Calochortus plummerae</i> Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
<i>Calochortus weedii var. intermedius</i> intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T3	S3	1B.2
<i>Calystegia felix</i> lucky morning-glory	PDCON040P0	None	None	G1Q	S1	1B.1
<i>Centromadia parryi ssp. australis</i> southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
<i>Centromadia pungens ssp. laevis</i> smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
<i>Chorizanthe parryi var. fernandina</i> San Fernando Valley spineflower	PDPGN040J1	None	Endangered	G2T1	S1	1B.1
<i>Chorizanthe parryi var. parryi</i> Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
<i>Cladium californicum</i> California saw-grass	PMCYP04010	None	None	G4	S2	2B.2
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S2	SSC
<i>Cuscuta obtusiflora var. glandulosa</i> Peruvian dodder	PDCUS01111	None	None	G5T4?	SH	2B.2
<i>Cypseloides niger</i> black swift	ABNUA01010	None	None	G4	S3	SSC
<i>Dodecahema leptoceras</i> slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
<i>Dudleya multicaulis</i> many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S3	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	Proposed Threatened	None	G3G4	S3	SSC
<i>Eryngium aristulatum var. parishii</i> San Diego button-celery	PDAPI0Z042	Endangered	Endangered	G5T1	S1	1B.1



Selected Elements by Scientific 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
<i>Eugnosta busckana</i> Busck's gallmoth	IILEM2X090	None	None	G1G3	S2S3	
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
<i>Galium grande</i> San Gabriel bedstraw	PDRUB0N0V0	None	None	G1	S1	1B.2
<i>Glyptostoma gabrielense</i> San Gabriel chestnut	IMGASB1010	None	None	G2	S3	
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S2	
<i>Helianthus nuttallii ssp. parishii</i> Los Angeles sunflower	PDAST4N102	None	None	G5TX	SX	1A
<i>Horkelia cuneata var. puberula</i> mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
<i>Icteria virens</i> yellow-breasted chat	ABPBX24010	None	None	G5	S4	SSC
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Lasiurus frantzii</i> western red bat	AMACC05080	None	None	G4	S3	SSC
<i>Lasiurus xanthinus</i> western yellow bat	AMACC05070	None	None	G4G5	S3	SSC
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
<i>Lepidium virginicum var. robinsonii</i> Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
<i>Linanthus concinnus</i> San Gabriel linanthus	PDPLM090D0	None	None	G2	S2	1B.2
<i>Malacothamnus davidsonii</i> Davidson's bush-mallow	PDMAL0Q040	None	None	G2	S2	1B.2
<i>Microtus californicus stephensi</i> south coast marsh vole	AMAFF11035	None	None	G5T2T3	S2	SSC
<i>Muhlenbergia californica</i> California muhly	PMPOA480A0	None	None	G4	S4	4.3
<i>Nasturtium gambelii</i> Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
<i>Navarretia fossalis</i> spreading navarretia	PDPLM0C080	Threatened	None	G2	S2	1B.1



Selected Elements by Scientific 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
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	AMACD04010	None	None	G5	S3	SSC
<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Onychomys torridus ramona</i> southern grasshopper mouse	AMAFF06022	None	None	G5T3	S3	SSC
Open Engelmann Oak Woodland Open Engelmann Oak Woodland	CTT71181CA	None	None	G2	S2.2	
<i>Orcuttia californica</i> California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
<i>Palaeoxenus dohrni</i> Dohrn's elegant eucnemid beetle	IICOL5K010	None	None	G3?	S1S2	
<i>Pelazoneuron puberulum var. sonorensis</i> Sonoran maiden fern	PPTHE05192	None	None	G5T3	S2	2B.2
<i>Phacelia stellaris</i> Brand's star phacelia	PDHYD0C510	None	None	G1	S1	1B.1
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G4	S4	SSC
<i>Poliophtila californica californica</i> coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T3Q	S2	SSC
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
<i>Quercus dumosa</i> Nuttall's scrub oak	PDFAG050D0	None	None	G3	S3	1B.1
<i>Rana muscosa</i> southern mountain yellow-legged frog	AAABH01330	Endangered	Endangered	G1	S2	WL
<i>Ribes divaricatum var. parishii</i> Parish's gooseberry	PDGRO020F3	None	None	G5TX	SX	1A
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S3	
Riversidian Alluvial Fan Sage Scrub Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	
<i>Scutellaria bolanderi ssp. austromontana</i> southern mountains skullcap	PDLAM1U0A1	None	None	G4T3	S3	1B.2
<i>Sidalcea neomexicana</i> salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	



Selected Elements by Scientific 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
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Spea hammondi western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
Spermolepis lateriflora western bristly scaleseed	PDAP123080	None	None	G5	SH	2A
Symphotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
Symphotrichum greatae Greata's aster	PDASTE80U0	None	None	G2	S2	1B.3
Taricha torosa Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondi two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	
Walnut Forest Walnut Forest	CTT81600CA	None	None	G1	S1.1	

Record Count: 93








CNPS Rare Plant Inventory




Search Results

37 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [1B:2B] Fed List is one of [FE:FT:FC:None] or State List is one of [CE:CT:CR:None] , 9-Quad include [3411811:3411812:3411821:3411823:3411822:3311882:3311883:3311881:3411813]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
<u><i>Arctostaphylos glandulosa ssp. gabrielensis</i></u>	San Gabriel manzanita	Ericaceae	perennial evergreen shrub	Mar	None	None	G5T3	S3	1B.2	Yes	1994-01-01	 © 2016 Neal Kramer
<u><i>Arenaria paludicola</i></u>	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	May-Aug	FE	CE	G1	S1	1B.1		1984-01-01	No Photo Available
<u><i>Astragalus brauntonii</i></u>	Braunton's milk-vetch	Fabaceae	perennial herb	Jan-Aug	FE	None	G2	S2	1B.1	Yes	1974-01-01	 © 2009 Thomas Stoughton
<u><i>Astragalus tener var. titi</i></u>	coastal dunes milk-vetch	Fabaceae	annual herb	Mar-May	FE	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
<u><i>Atriplex coulteri</i></u>	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	None	None	G3	S1S2	1B.2		1994-01-01	No Photo Available
<u><i>Atriplex parishii</i></u>	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	None	None	G1G2	S1	1B.1		1988-01-01	No Photo Available
<u><i>Atriplex serenana var. davidsonii</i></u>	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G5T1	S1	1B.2		1994-01-01	No Photo Available
<u><i>Berberis nevini</i></u>	Nevin's barberry	Berberidaceae	perennial evergreen shrub	(Feb)Mar-Jun	FE	CE	G1	S1	1B.1	Yes	1980-01-01	No Photo Available
<u><i>Calochortus clavatus var. gracilis</i></u>	slender mariposa-lily	Liliaceae	perennial bulbiferous herb	Mar-Jun(Nov)	None	None	G4T2T3	S2S3	1B.2	Yes	1994-01-01	No Photo Available

<u><i>Calochortus weedii</i></u> <u>var. <i>intermedius</i></u>	intermediate mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None	None	G3G4T3	S3	1B.2	Yes	1994- 01-01	No Photo Available
<u><i>Calystegia felix</i></u>	lucky morning- glory	Convolvulaceae	annual rhizomatous herb	Mar-Sep	None	None	G1Q	S1	1B.1	Yes	2014- 07-16	No Photo Available
<u><i>Centromadia</i></u> <u><i>parryi</i> ssp. <i>australis</i></u>	southern tarplant	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.1		1994- 01-01	No Photo Available
<u><i>Centromadia</i></u> <u><i>pungens</i> ssp. <i>laevis</i></u>	smooth tarplant	Asteraceae	annual herb	Apr-Sep	None	None	G3G4T2	S2	1B.1	Yes	1994- 01-01	No Photo Available
<u><i>Chorizanthe parryi</i></u> <u>var. <i>fernandina</i></u>	San Fernando Valley spineflower	Polygonaceae	annual herb	Apr-Jul	None	CE	G2T1	S1	1B.1	Yes	1974- 01-01	No Photo Available
<u><i>Chorizanthe parryi</i></u> <u>var. <i>parryi</i></u>	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	None	None	G3T2	S2	1B.1	Yes	1994- 01-01	 © 2012 Keir Morse
<u><i>Cladium</i></u> <u><i>californicum</i></u>	California saw-grass	Cyperaceae	perennial rhizomatous herb	Jun-Sep	None	None	G4	S2	2B.2		2006- 08-17	No Photo Available
<u><i>Cuscuta obtusiflora</i></u> <u>var. <i>glandulosa</i></u>	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	None	None	G5T4?	SH	2B.2		2011- 08-24	No Photo Available
<u><i>Dodecahema</i></u> <u><i>leptoceras</i></u>	slender- horned spineflower	Polygonaceae	annual herb	Apr-Jun	FE	CE	G1	S1	1B.1	Yes	1980- 01-01	No Photo Available
<u><i>Dudleya</i></u> <u><i>multicaulis</i></u>	many- stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	None	None	G2	S2	1B.2	Yes	1974- 01-01	No Photo Available
<u><i>Eryngium</i></u> <u><i>aristulatum</i> var.</u> <u><i>parishii</i></u>	San Diego button-celery	Apiaceae	annual/perennial herb	Apr-Jun	FE	CE	G5T1	S1	1B.1		1974- 01-01	No Photo Available
<u><i>Galium grande</i></u>	San Gabriel bedstraw	Rubiaceae	perennial deciduous shrub	Jan-Jul	None	None	G1	S1	1B.2	Yes	1984- 01-01	 © Lauramay Dempster and CNPS
<u><i>Horkelia cuneata</i></u> <u>var. <i>puberula</i></u>	mesa horkelia	Rosaceae	perennial herb	Feb- Jul(Sep)	None	None	G4T1	S1	1B.1	Yes	2001- 01-01	 © 2008 Tony Morosco

<u><i>Lasthenia glabrata</i></u> <u><i>ssp. coulteri</i></u>	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1		1994- 01-01		© 2013 Keir Morse
<u><i>Linanthus</i></u> <u><i>concinnus</i></u>	San Gabriel linanthus	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	Yes	1974- 01-01		© 2019 RT Hawke
<u><i>Malacothamnus</i></u> <u><i>dauidsonii</i></u>	Davidson's bush-mallow	Malvaceae	perennial deciduous shrub	Jun-Jan	None	None	G2	S2	1B.2	Yes	1974- 01-01		© 2016 Keir Morse
<u><i>Nasturtium</i></u> <u><i>gambelii</i></u>	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	FE	CT	G1	S1	1B.1		1980- 01-01	No Photo Available	
<u><i>Navarretia fossalis</i></u>	spreading navarretia	Polemoniaceae	annual herb	Apr-Jun	FT	None	G2	S2	1B.1		1980- 01-01	No Photo Available	
<u><i>Navarretia</i></u> <u><i>prostrata</i></u>	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	Yes	2001- 01-01	No Photo Available	
<u><i>Orcuttia californica</i></u>	California Orcutt grass	Poaceae	annual herb	Apr-Aug	FE	CE	G1	S1	1B.1		1974- 01-01	No Photo Available	
<u><i>Pelazoneuron</i></u> <u><i>puberulum</i></u> var. <u><i>sonorensis</i></u>	Sonoran maiden fern	Thelypteridaceae	perennial rhizomatous herb	Jan-Sep	None	None	G5T3	S2	2B.2		1994- 01-01	No Photo Available	
<u><i>Phacelia stellaris</i></u>	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	None	None	G1	S1	1B.1		1994- 01-01	No Photo Available	
<u><i>Pseudognaphalium</i></u> <u><i>leucocephalum</i></u>	white rabbit- tobacco	Asteraceae	perennial herb	(Jul)Aug- Nov(Dec)	None	None	G4	S2	2B.2		2006- 11-03	No Photo Available	
<u><i>Quercus dumosa</i></u>	Nuttall's scrub oak	Fagaceae	perennial evergreen shrub	Feb- Apr(May- Aug)	None	None	G3	S3	1B.1		1994- 01-01	No Photo Available	
<u><i>Scutellaria</i></u> <u><i>bolanderi</i></u> ssp. <u><i>austromontana</i></u>	southern mountains skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Aug	None	None	G4T3	S3	1B.2	Yes	1994- 01-01	No Photo Available	
<u><i>Sidalcea</i></u> <u><i>neomexicana</i></u>	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	None	None	G4	S2	2B.2		1994- 01-01	No Photo Available	
<u><i>Symphotrichum</i></u> <u><i>defoliatum</i></u>	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov	None	None	G2	S2	1B.2	Yes	2004- 01-01	No Photo Available	

<u><i>Symphotrichum</i></u> <u><i>greatae</i></u>	Greata's aster	Asteraceae	perennial rhizomatous herb	Jun-Oct	None	None	G2	S2	1B.3	Yes	1974- 01-01
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Charters

Showing 1 to 37 of 37 entries

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**Appendix B:
List of Plant and Animal Species
Observed in the Biological Study Area**

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List of Plant Species Observed in the Biological Study Area

Scientific Name	Common Name	Status Federal/State/ California Rare Plant Rank	California Invasive Plant Council Rating ^a
CONIFEROPHYTA - CONE-BEARING PLANTS			
Pinaceae – Pine Family			
<i>Pinus halepensis</i> ^b	Aleppo pine	—/—/—	—
DICOTYLEDONES – “DICOTS”			
Aizoaceae – Fig-Marigold Family			
<i>Mesembryanthemum crystallinum</i> ^b	crystalline iceplant	—/—/—	Moderate
Amaranthaceae – Amaranth Family			
<i>Amaranthus albus</i> ^b	tumbling pigweed	—/—/—	—
Apocynaceae – Dogbane Family			
<i>Nerium oleander</i> ^b	oleander	—/—/—	—
Araliaceae – Ivy Family			
<i>Hedera helix</i> ^b	English ivy	—/—/—	High
Asteraceae – Sunflower Family			
<i>Bidens pilosa</i> ^b	hairy beggarticks	—/—/—	—
<i>Erigeron canadensis</i>	common horseweed	—/—/—	—
<i>Hedypnois cretica</i> ^b	cretanweed	—/—/—	—
<i>Helianthus annuus</i>	western sunflower	—/—/—	—
<i>Lactuca serriola</i> ^b	prickly lettuce	—/—/—	—
<i>Senecio vulgaris</i>	common groundsel	—/—/—	—
<i>Sonchus oleraceus</i> ^b	common sow-thistle	—/—/—	—
Brassicaceae – Mustard Family			
<i>Hirschfeldia incana</i> ^b	shortpod mustard	—/—/—	Moderate
<i>Sisymbrium irio</i> ^b	London rocket	—/—/—	Moderate
Chenopodiaceae – Goosefoot Family			
<i>Atriplex semibaccata</i> ^b	Australian saltbush	—/—/—	Moderate

List of Plant Species Observed in the Biological Study Area

Scientific Name	Common Name	Status Federal/State/ California Rare Plant Rank	California Invasive Plant Council Rating ^a
<i>Salsola tragus</i> ^b	Russian thistle	—/—/—	Limited
Euphorbiaceae – Spurge Family			
<i>Ricinus communis</i> ^b	castor-bean	—/—/—	Limited
Fabaceae – Pea Family			
<i>Acacia redolens</i> ^b	bank catclaw	—/—/—	—
<i>Lupinus</i> sp.	lupine	—/—/—	—
<i>Medicago polymorpha</i> ^b	bur-clover	—/—/—	Limited
<i>Melilotus indicus</i> ^b	sourclover	—/—/—	—
Geraniaceae – Geranium Family			
<i>Erodium cicutarium</i> ^b	red-stemmed filaree	—/—/—	Limited
<i>Erodium moschatum</i> ^b	white-stemmed filaree	—/—/—	—
Malvaceae – Mallow Family			
<i>Malva parviflora</i> ^b	cheeseweed	—/—/—	—
Myrtaceae – Myrtle Family			
<i>Eucalyptus citriodora</i> ^b	lemon scented gum	—/—/—	—
Plantaginaceae – Plantain Family			
<i>Plantago</i> c.f. <i>subnuda</i> ^b	Mexican plantain	—/—/—	—
Platanaceae – Sycamore Family			
<i>Platanus racemosa</i>	western sycamore	—/—/—	—
Plumbaginaceae – Leadwort Family			
<i>Limonium perezii</i> ^b	Perez’s sea-lavender	—/—/—	—
Portulacaceae – Purslane Family			
<i>Portulaca oleracea</i> ^b	common purslane	—/—/—	—
Rosaceae – Rose Family			
<i>Prunus</i> ^b sp.	cherry	—/—/—	—

List of Plant Species Observed in the Biological Study Area

Scientific Name	Common Name	Status Federal/State/ California Rare Plant Rank	California Invasive Plant Council Rating ^a
Solanaceae – Nightshade Family			
<i>Datura wrightii</i>	jimsonweed	—/—/—	—
<i>Nicotiana glauca</i> ^b	tree tobacco	—/—/—	Moderate
MONOCOTS			
Arecaceae – Palm Family			
<i>Washingtonia robusta</i> ^b	Mexican fan palm	—/—/—	Moderate
Poaceae – Grass Family			
<i>Avena</i> ^b sp.	wild oat	—/—/—	Moderate
<i>Bromus diandrus</i> ^b	common ripgut grass	—/—/—	Moderate
<i>Bromus madritensis ssp. rubens</i> ^b	red brome	—/—/—	High
<i>Cynodon dactylon</i> ^b	Bermuda grass	—/—/—	Moderate
<i>Pennisetum setaceum</i> ^b	fountain grass	—/—/—	Moderate
<i>Schismus barbatus</i> ^b	Mediterranean schismus	—/—/—	Limited
<i>Stipa miliacea</i> var. <i>miliacea</i> ^b	smilo grass	—/—/—	Limited

Notes:

^a California Invasive Plant Council Ratings (2018):

High=These species have severe ecological effects on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate=These species have substantial and apparent, but generally not severe, ecological effects on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited=These species are invasive but their ecological effects are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

^b Nonnative plant

List of Animal Species Observed in the Biological Study Area

Common Name	Scientific Name	Status
CLASS: AVES (Birds)		
Falconinae		
American kestrel	<i>Falco sparverius</i>	—
Columbidae		
Rock pigeon	<i>Columba livia</i>	—
Mourning dove	<i>Zenaida macroura</i>	—
Corvidae		
American crow	<i>Corvus brachyrhynchos</i>	—
Sturnidae		
European starling ^a	<i>Sturnus vulgaris</i>	—
Parulidae		
Yellow-rumped warbler	<i>Dendroica coronata</i>	—
Fringillidae		
House finch	<i>Haemorhous mexicanus</i>	—
Lesser goldfinch	<i>Spinus psaltria</i>	—
Passeridae		
House sparrow ^a	<i>Passer domesticus</i>	—
CLASS: MAMMALIA (MAMMALS)		
Carnivora (Carnivores)		
Felidae (Cats)		
Domestic cat	<i>Felis domesticus</i>	—

Notes:

^a *Nonnative animal*

Appendix C: Site Photographs

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Photograph 1. Northeast corner of Biological Study Area overlooking ornamental vegetation between the parking lot and rail, looking south



Photograph 2. Planted pines along Keller Street and the rail, looking south



Photograph 3. Planted ornamental vegetation between tracks and fence line along Bolero Lane, looking west



Photograph 4. Disturbed habitat located on the northwest corner of the Biological Study Area (North Alhambra Avenue and Vignes Street), looking south along the property fence line and rail tracks to the left



Photograph 5. Southeast corner of the disturbed lot located on the northwest corner of the Biological Study Area (North Alhambra Avenue and Vignes Street), looking south



Photograph 6. Northeast corner of disturbed lot located on the northwest corner of the Biological Study Area, looking southwest



Photograph 7. Two-foot-wide drainage ditch along the fence line on the corner of Commercial and Center Streets, looking north



Photograph 8. Disturbed habitat looking west on the corner of Commercial Street and Center Street



Photograph 9. Looking north into disturbed habitat located north of Commercial Street

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