Los Angeles County
Metropolitan Transportation Authority

West Santa Ana Branch Transit Corridor

Final Biological Resources Impact Analysis Report

Metro®

WEST SANTA ANA BRANCH TRANSIT CORRIDOR PROJECT

Final Biological Resources Impact Analysis Report

Prepared for:

Metro

Los Angeles County
Metropolitan Transportation Authority

Prepared by:

WSP
515 South Figueroa Street
Suite 1400
Los Angeles, California 90071

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AUTHOR

Robin Murray, Rincon

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AA	Alternatives Analysis
BIOS	Biogeographic Information and Observation System
BRT	bus rapid transit
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
DBH	diameter-at-breast-height
EIR	environmental impact report
EIS	environmental impact statement
ESA	Endangered Species Act
I-	Interstate
IPaC	Information for Planning and Consultation
LA	Los Angeles
LAMC	Los Angeles Municipal Code
LAUS	Los Angeles Union Station
LPA	Locally Preferred Alternative
LRT	Light Rail Transit
LRTP	Long Range Transportation Plan
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
MSF	maintenance and storage facility
MWD	Metropolitan Water District
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act

Acronym	Definition
NRCS	Natural Resource Conservation Service
NWI	National Wetlands Inventory
OHWM	ordinary high water mark
PEROW/WSAB	Pacific Electric Right-of-Way/West Santa Ana Branch
RHA	Rivers and Harbors Appropriation Act of 1899
ROW	right-of-Way
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SR	State Route
SSC	Species of Special Concern
SWQCB	State Water Resources Control Board
TOD	transit-oriented development
TPSS	traction power substation
UPRR	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WSAB	West Santa Ana Branch

1 INTRODUCTION

1.1 Study Background

The West Santa Ana Branch (WSAB) Transit Corridor (Project) is a proposed light rail transit (LRT) line. In January 2022, the Los Angeles County Metropolitan Transportation Authority (Metro) Board of Directors identified the Locally Preferred Alternative (LPA), which will extend approximately 14.5 miles from the northern terminus in the City of Los Angeles/Florence-Firestone community of Los Angeles (LA) County to the southern terminus in the City of Artesia, traversing densely populated, low-income, and heavily transit-dependent communities. The Project will provide reliable, fixed-guideway transit service that will increase mobility and connectivity for historically underserved, transit-dependent, and environmental justice communities; reduce travel times on local and regional transportation networks; and accommodate substantial future employment and population growth.

1.2 Alternatives Evaluation, Screening, and Selection Process

A wide range of potential alternatives have been considered and screened through the alternatives analysis processes. In March 2010, the Southern California Association of Governments (SCAG) initiated the Pacific Electric Right-of-Way (PEROW)/WSAB Alternatives Analysis (AA) Study (SCAG 2013) in coordination with the relevant cities, the Orangeline Development Authority (renamed to Eco-Rapid Transit, which has since been dissolved), the Gateway Cities Council of Governments, Metro, the Orange County Transportation Authority, and the owners of the right-of-way (ROW)—Union Pacific Railroad (UPRR), BNSF Railway, and the Ports of Los Angeles and Long Beach. The AA Study evaluated a wide variety of transit connections and modes for a broader 34-mile corridor from Union Station in downtown Los Angeles to the City of Santa Ana in Orange County. In February 2013, SCAG completed the PEROW/WSAB Corridor Alternatives Analysis Report[1] and recommended two LRT alternatives for further study: West Bank 3 and the East Bank.

Following completion of the AA, Metro completed the *West Santa Ana Branch Transit Corridor Project Technical Refinement Study* (Metro 2015) in 2015 focusing on the design and feasibility of five key issue areas along the 19-mile portion of the WSAB Transit Corridor within LA County:

- Access to Union Station in downtown Los Angeles
- Northern Section options
- Huntington Park Alignment and Stations
- New C (Green) Line Station
- Southern Terminus at Pioneer Station in Artesia

In September 2016, Metro initiated the WSAB Transit Corridor Environmental Study (Environmental Study) with the goal of environmentally clearing the Project under the

[1] Initial concepts evaluated in the SCAG report included transit connections and modes for the 34-mile corridor from Union Station in downtown Los Angeles to the City of Santa Ana. Modes included low-speed magnetic levitation (maglev) heavy rail, light rail, and bus rapid transit.

California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Metro issued a Notice of Preparation (NOP) on May 25, 2017, with a revised NOP issued on June 14, 2017, extending the comment period to 60 days. In June 2017, Metro held public scoping meetings in the Cities of Bellflower, Los Angeles, South Gate, and Huntington Park. Metro provided project updates and information to stakeholders with the intent to receive comments and questions through a comment period that ended in August 2017. A total of 1,122 comments were received during the public scoping period from May through August 2017. The comments focused on concerns regarding the Northern Alignment options, with specific concerns related to potential impacts to Alameda Street with an aerial alignment. Given potential visual and construction issues raised through public scoping, additional Northern Alignment concepts were evaluated.

In February 2018, the Metro Board of Directors approved further study of the alignment in the Northern Section due to community input during the 2017 scoping meetings. A second alternatives screening process was initiated to evaluate the original four Northern Alignment options and four new Northern Alignment concepts. The *Final Northern Alignment Alternatives and Concepts Updated Screening Report* was completed in May 2018 (Metro 2018). The alternatives were further refined and, based on the findings of the second screening analysis and the input gathered from the public outreach meetings, the Metro Board of Directors approved Alternatives E and G for further evaluation.

On July 11, 2018, Metro issued a revised and recirculated CEQA NOP, thereby initiating a scoping comment period. The purpose of the revised NOP was to inform the public of the Metro Board's decision to carry forward Alternatives E and G into the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR). During the scoping period, one agency and three public scoping meetings were held in the Cities of Los Angeles, Cudahy, and Bellflower. The meetings provided project updates and information to stakeholders with the intent to receive comments and questions to support the environmental process. The comment period for scoping ended on August 24, 2018; more than 250 comments were received.

Following the July 2018 scoping period, a number of project refinements were made to address comments received, including additional grade separations, removing certain stations with low ridership, and removing the Bloomfield extension option. The Metro Board adopted these project refinements at its November 2018 meeting.

1.3 Draft Environmental Impact Statement/Environmental Impact Report

The Draft EIS/EIR and corresponding technical studies included evaluation of a No Build Alternative, four Build Alternatives, two station design options, and two site options for a maintenance and storage facility (MSF):

- Alternative 1: Los Angeles Union Station to Pioneer Station
  - Design Option 1: Los Angeles Union Station – Metropolitan Water District
  - Design Option 2: Addition of Little Tokyo Station
- Alternative 2: 7th St/Metro Center to Pioneer Station

- Alternative 3: Slauson/A Line (Blue) to Pioneer Station
- Alternative 4: I-105/C Line (Green) to Pioneer Station
- Paramount MSF site option
- Bellflower MSF site option

Figure 1-1 illustrates the Build Alternatives evaluated in the Draft EIS/EIR.

Figure 1-1. Draft EIS/EIR Build Alternatives

Source: Metro 2020

The Draft EIS/EIR was released for public review and comment in July 2021 for 45 days, which was then extended to a 60-day public review period through September 28, 2021, to provide additional time for the public to respond. Notices of the Draft EIS/EIR release were done in accordance with CEQA and NEPA regulations and included two rounds of notices to announce details of the release of the Draft EIS/EIR, as well as to provide information on the public hearings and comment methods. The Notice of Availability was distributed to 261 agencies via USB drives, which included an electronic copy of the Draft EIS/EIR.

During the 60-day public review period, Metro hosted four virtual public hearings, four virtual community information sessions, and over 19 pop-up booths for in-person engagement at locations throughout the project corridor. In addition, Metro held approximately 20 briefings to key stakeholders, elected officials, corridor cities, and other agencies. In total, approximately 450 submissions were received during the public review and comment period. In January 2022, the Metro Board of Directors identified Alternative 3 as the LPA. The LPA extends from a northern terminus at the Slauson/A Line Station located in the City of Los Angeles/Florence-Firestone unincorporated area of LA County to a southern terminus at the Pioneer Station located in Artesia for a total of 14.5 miles. With identification of the LPA, the Metro Board also identified the MSF site option located in the City of Bellflower as a component of the LPA.

1.4 Report Purpose and Structure

Information regarding biological resources pertaining to the 12 local jurisdictions (the unincorporated Florence-Firestone community of LA County, as well as the Cities of Los Angeles, Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Artesia, and Cerritos) within the Affected Area is provided. The report is organized into eight sections:

- Section 1 – Introduction
- Section 2 – Project Description
- Section 3 – Regulatory Framework
- Section 4 – Affected Environment/Existing Conditions
- Section 5 – Environmental Impact/Environmental Consequences
- Section 6 – Mitigation Measures
- Section 7 – CEQA Determination
- Section 8 – References

1.5 General Topic Background

Biological resources refer to the plant and wildlife species that are present within an area, as well as vegetation communities that may support such species. Biological resources also encompass waters and/or wetlands subject to agency jurisdiction. Existing biological resources within the Affected Area are determined by reviewing available literature and documentation within the vicinity, in conjunction with a reconnaissance survey to observe conditions on the ground. The Affected Area for the purposes of evaluating the potential effects/impacts to biological resources is defined as 100 feet surrounding the proposed alignment and around proposed station areas, the MSF site, traction power substation (TPSS) sites, and parking facilities. The Affected Area for biological resources is sufficient to characterize the existing setting and to evaluate potential effects/impacts to biological resources.

1.6 Methodology

1.6.1 Literature Review

Literature reviews for biological studies are conducted to assess the accumulated body of knowledge regarding biological resources within and adjacent to the Affected Area. Prior to the field survey, Rincon Consultants, Inc. (Rincon) conducted a literature review to characterize the nature and extent of biological resources within and adjacent to the corridor. The literature review included an evaluation of current and historical aerial photographs of the site (Google Earth 2017).

The California Natural Diversity Data Base (CNDDB; California Department of Fish and Wildlife (CDFW) 2017a), Biogeographic Information and Observation System (BIOS; CDFW 2017b) and the United States Fish and Wildlife Service's (USFWS) Critical Habitat Portal (USFWS 2017a) and Information Planning and Conservation online system (USFWS 2017b) were reviewed to determine if any special-status wildlife, plant, or vegetation communities were previously recorded on or near the project alignment. Additionally, a 5-mile radius CNDDB search was used to determine a preliminary list of special-status species with the potential to occur within the Affected Area. The potential for these species to occur within the Affected Area was then evaluated, based on the habitat requirements of the species, existing conditions within the Affected Area, and occurrence details of the species records. The National Wetlands Inventory (NWI; USFWS 2017c) was reviewed to determine if any wetland and/or non-wetland waters of the United States had been previously documented and mapped on or in the vicinity of the Project. Other resources included the California Native Plant Society (CNPS) Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2017), CDFW Special Animals List (CDFW 2017c), and CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2017d).

Aerial photographs of all potential jurisdictional waters within the Affected Area as well as regional and site-specific topographic maps, the Supplement to the Soil Survey, Los Angeles County, California, Southeastern Part (United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) 2017a), and other available background information were reviewed to better characterize the nature and extent of potentially jurisdictional waters and wetlands were also reviewed. The *National Wetlands Inventory* (NWI) (USFWS 2017c) and the *National Hydrography Dataset* (USGS 2020) were reviewed to determine if any wetlands or other waters had been previously documented and mapped within the Affected Area. The *National Hydric Soils List by State: California* (USDA NRCS 2020) was also reviewed to determine if any soil map units mapped in the site were classified as hydric.

1.6.2 Field Reconnaissance Survey

Rincon biologists Robin Murray and Charis van der Heide conducted a field reconnaissance survey on May 11, 2017, between 10 a.m. and 4 p.m. The Affected Area is defined as 100 feet on both sides along the alignment and around the proposed station areas, as well as MSF sites, TPSS sites, and parking facilities. The purpose of the survey was to document existing biological conditions within the Affected Area, including plant and wildlife species, vegetation communities, jurisdictional waters and wetlands, and the potential for presence of special-status species and/or habitats. The biologists conducted the survey along the route primarily by car; however, where the route crossed drainages, a detailed examination was conducted via pedestrian survey. Where portions of the Affected Area were inaccessible (i.e.,

private property), the biologists visually inspected those areas with binoculars (power rating of 10 x 40). Weather conditions during the survey included an average temperature of 70 degrees Fahrenheit, winds between 3 and 5 miles per hour, and 0 percent cloud cover.

An additional field reconnaissance survey was conducted on July 24, 2020, during which all potential jurisdictional waters within the Affected Area were delineated. This survey is further described in the Jurisdictional Waters section below.

1.6.3 Vegetation Classification

All vegetation communities observed within the accessible portions of the Affected Area were surveyed by vehicle and on foot, using binoculars and aerial photography interpretation as necessary. Vegetation communities were classified using *A Manual of California Vegetation* (Sawyer et. al. 2009), where appropriate.

1.6.4 Flora

All plant species observed in the Affected Area were noted, and plants that could not be identified in the field were identified later using taxonomic keys and reference materials (Jepson Flora Project 2017, Hatch 2007). The reconnaissance survey included a directed search for special-status plants that would have been apparent at the time of the survey. Floral nomenclature for native and non-native plants follows Baldwin et al. (2012) as updated by The Jepson Online Interchange (University of California, Berkeley 2014). The approximate number of street trees within the project footprint in the Southern Section was estimated based on engineering plans overlaid on aerial imagery of the Affected Area.

1.6.5 Fauna

Animal species observed directly or detected from calls, tracks, scat, nests, or other signs were documented. The detection of wildlife species was limited by seasonal and temporal factors. The survey was conducted during the spring; therefore, potentially occurring winter migrants may not have been observed. Because the survey was performed during the day, identification of nocturnal animals was limited to remnant signs (e.g., scat, tracks), if present on-site. Zoological nomenclature for birds is in accordance with the American Ornithologists' Union Checklist (2017); for mammals, Wilson and Reeder (2005); and for amphibians and reptiles, Crother (2012).

1.6.6 Jurisdictional Resources

A reconnaissance-level survey was performed on July 24, 2020, during which all potentially jurisdictional features identified within the Affected Area were inspected to record existing conditions and determine jurisdictional limits. Initial coordination with the United States Army Corps of Engineers (USACE) was not conducted prior to the delineation described in this study. However, based on the delineation conducted for this study, the preliminary jurisdictional delineation request was submitted to the USACE on November 5, 2020, for review and approval.

Drainage features, width measurements, and wetland sample points were mapped using a Trimble® GeoXT GPS unit and recent aerial photography. Width measurements for USACE jurisdiction were determined based on the lateral extent of the Ordinary High Water Mark (OHWM). Regional Water Quality Control Board (RWQCB) jurisdiction was determined in accordance with the previously listed methodologies to identify waters of the U.S. The procedures of the State Water Resources Control Board (SWRCB)'s *State Wetland Definition*

and Procedures for Discharges of Dredged or Fill Material to Waters of the State were applied, and the Affected Area was reviewed for features that may have fallen outside federal jurisdiction due to lack of connectivity or insufficient flow. CDFW jurisdiction was delineated in accordance with Section 1602(a) of the California Fish and Game Code and measured laterally from bank to bank at the top of the channel or to the outer drip line of associated riparian vegetation, if present.

One OHWM data sheet and one wetland sample point were completed at a representative location within the Affected Area of each crossing to determine the presence/absence of wetland indicators, such as hydrophytic vegetation, hydric soils, and wetland hydrology. Soil test pits were not conducted since the Affected Area consists of concrete-lined channels devoid of soils.

1.6.7 Impact Analysis

Potential biological effects of the Project were evaluated by examining existing biological conditions along and surrounding the proposed alignments and proposed stations, MSF site, TPSS sites, and parking facilities. Potential adverse effects would occur if implementation of the Project would impact special-status plant and wildlife species or aquatic resources subject to USACE, RWQCB, or CDFW jurisdiction, or result in conflicts with applicable biological plans, policies, or regulations. General indicators of significance, based on guidelines or criteria in NEPA, include the following:

- Potential modification or destruction of habitat, movement corridors, or breeding, feeding, and sheltering areas for endangered, threatened, rare, or other special-status species
- Potential measurable degradation of protected habitats, sensitive vegetation communities, wetlands, or other habitat areas identified in plans, policies, or regulations
- Potential loss of a substantial number of any species that could affect the abundance or diversity of that species beyond the level of normal variability
- Potential indirect impacts, both temporary and permanent, from excessive noise that elicits a negative response and avoidance behavior

CEQA thresholds of significance are presented in Section 7.1.

2 PROJECT DESCRIPTION

This section describes the No Build Alternative and the LPA studied in the WSAB Transit Corridor Final EIS/EIR, including station locations, and the MSF. The LPA was developed through a comprehensive alternatives analysis process and meets the purpose and need of the Project.

The No Build Alternative and LPA are generally defined as follows:

- **No Build Alternative:** Reflects the transportation network in the 2042 horizon year without the LPA. The No Build Alternative includes the existing transportation network along with planned transportation improvements that have been committed to and identified in the constrained *Metro 2009 Long Range Transportation Plan* (2009 LRTP) (Metro 2009) and SCAG's *2016-2040* RTP/SCS (SCAG 2016), as well as additional projects funded by Measure M that would be completed by 2042.
- **LPA:** The LPA consists of a 14.5-mile LRT line that will extend from the northern terminus in the City of Los Angeles/Florence-Firestone community of LA County to a southern terminus in the City of Artesia.

Figure 2-1 illustrates the LPA. The northern terminus of the LPA will be located just south of the intersection of Long Beach Avenue and Slauson Avenue, connecting to the current Slauson/A Line Station. South of Slauson Avenue, the LPA will follow the UPRR-owned La Habra Branch[2] ROW east along Randolph Street. At the Ports-owned San Pedro Subdivision ROW, the LPA will turn southeast to follow the San Pedro Subdivision ROW and then transition to the PEROW south of the I-105 freeway. The LPA will then follow the Metro-owned PEROW to the southern terminus at the Pioneer Station in Artesia. Figure 2-2 depicts the alignment sections that will require freight track relocation. The LPA will be grade separated where warranted, as indicated on Figure 2-1.

[2] The La Habra Branch may also be referred to as the La Habra Subdivision. La Habra Branch is used within this document.

Figure 2-1. Locally Preferred Alternative Alignment by Grade

Source: WSP and TAHA 2023

Figure 2-2. Existing Rail Right-of-Way Ownership

Source: WSP and TAHA 2023

2.1 No Build Alternative

For the NEPA evaluation, the No Build Alternative is evaluated in the context of the existing transportation facilities in the project corridor (the corridor extends approximately 2 miles from each side of the four alternatives evaluated in the Draft EIS/EIR) and other capital transportation improvements and/or transit and highway operational enhancements that are reasonably foreseeable. Because the No Build Alternative provides the background transportation network against which the LPA's impacts are identified and evaluated, the No Build Alternative does not include the Project.

The No Build Alternative reflects the transportation network in 2042 and includes the existing transportation network along with planned transportation improvements that have been committed to and identified in the constrained Metro 2009 LRTP and the SCAG 2016 RTP/SCS, as well as additional projects funded by Measure M, a sales tax initiative approved by voters in November 2016. The No Build Alternative includes Measure M projects that are scheduled to be completed by 2042.

The required environmental baseline socioeconomic growth projections, including the reasonably foreseeable transportation network in 2042, were established in July 2017 when the preparation of the Draft EIS/EIR began. The SCAG 2016-2040 RTP/SCS was the adopted current regional growth forecast at the time the Draft EIS/EIR baseline was established. Specifically, the baseline year 2017 and future year 2042 population, housing, and employment are derived from the Transportation Analysis Zone-level estimates from the SCAG 2016-2040 RTP/SCS.

Table 2.1 lists the existing transportation network and planned improvements included as part of the No Build Alternative based on the Metro 2009 LRTP and SCAG 2016 RTP/SCS.

Table 2.1. No Build Alternative – Existing Transportation Network and Planned Improvements

Project	To / From	Location Relative to Study Area
Rail (Existing)		
Metro Rail System (LRT and Heavy Rail Transit)	Various locations	Within Study Area
Metrolink (Southern California Regional Rail Authority) System	Various locations	Within Study Area
Rail (Under Construction/Planned)[1]		
Metro Westside D Line Extension	Wilshire/Western to Westwood/VA Hospital	Outside Study Area
Metro C Line Extension[2] to Torrance	96th Street Station to Torrance	Outside Study Area
Metro C Line Extension	Norwalk to Expo/Crenshaw	Outside Study Area
Metro East-West Line/Regional Connector/Eastside Phase 2	Santa Monica to Lambert Road Santa Monica to Peck Road	Within Study Area
Metro North-South Line/Regional Connector/Foothill Extension to Claremont Phase 2B	Long Beach to Claremont	Within Study Area
Metro Sepulveda Transit Corridor	Metro G Line to Metro E Line	Outside Study Area

Project	To / From	Location Relative to Study Area
Metro East San Fernando Valley Transit Corridor	Sylmar to Metro G Line	Outside Study Area
Los Angeles World Airport Automated People Mover	96th Street Station to LAX Terminals	Outside Study Area
Metrolink Capital Improvement Projects	Various projects	Within Study Area
California High-Speed Rail	Burbank to LA LA to Anaheim	Within Study Area
Link US[3]	LAUS	Within Study Area
Bus (Existing)		
Metro Bus System (including BRT, Express, and local)	Various locations	Within Study Area
Municipality Bus System[4]	Various locations	Within Study Area
Bus (Under Construction/Planned)		
Metro G Line (BRT)	Del Mar (Pasadena) to Chatsworth Del Mar (Pasadena) to Canoga Canoga to Chatsworth	Outside Study Area
Vermont Transit Corridor (BRT)	120th Street to Sunset Boulevard	Outside Study Area
North San Fernando Valley BRT	Chatsworth to North Hollywood	Outside Study Area
North Hollywood to Pasadena	North Hollywood to Pasadena	Outside Study Area
Highway (Existing)		
Highway System	Various locations	Within Study Area
Highway (Under Construction/Planned)		
High Desert Multi-Purpose Corridor	SR-14 to SR-18	Outside Study Area
I-5 North Capacity Enhancements	SR-14 to Lake Hughes Road	Outside Study Area
SR-71 Gap Closure	I-10 to Rio Rancho Road	Outside Study Area
Sepulveda Pass Express Lane	I-10 to US-101	Outside Study Area
SR-57/SR-60 Interchange Improvements	SR-57/SR-60	Outside Study Area
I-710 South Corridor Project (Phases 1 and 2)	Ports of Long Beach and LA to SR-60	Within Study Area
I-105 Express Lane	I-405 to I-605	Within Study Area
I-5 Corridor Improvements	I-605 to I-710	Outside Study Area

Source: Metro 2018, WSP 2019

Notes: [1] Where extensions are proposed for existing Metro rail lines, the origin/destination is defined for the operating scheme of the entire rail line following completion of the proposed extensions and not just the extension itself.

[2] The Metro C Line extension to Torrance includes new construction from Redondo Beach to Torrance; however, the line will operate from Torrance to 96th Street.

[3] Link US rail walk times included only.

[4] The municipality bus network system is based on service patterns for Bellflower Bus, Cerritos on Wheels, Cudahy Area Rapid Transit, Get Around Town Express, Huntington Park Express, La Campana, Long Beach Transit, Los Angeles Department of Transportation, Norwalk Transit System, and the Orange County Transportation Authority.

BRT = bus rapid transit; LA = Los Angeles; LAUS = Los Angeles Union Station; LAX = Los Angeles International Airport; LRT = light rail transit; SR = State Route; VA = Veterans Affairs

2.2 Locally Preferred Alternative

2.2.1 Refinements to the Locally Preferred Alternative

The LPA evaluated in this report is Alternative 3 from the Draft EIS/EIR with refinements to address stakeholder coordination and comments on the Draft EIS/EIR. Refinements to the LPA include the following:

- Shift the Slauson/A Line aerial station platform south and add a second set of vertical circulation and pedestrian circulation elements between the Slauson/A Line Station and the existing A Line Station. Additionally, a set of stairs was added between the A Line station and street level.
- Swap the location of the freight and LRT tracks within the La Habra Branch ROW compared to the Draft EIS/EIR design. Freight tracks will be located on the north side of the ROW and LRT tracks on the south side to accommodate potential freight connectivity to an existing industrial track on the north side of the ROW.
- Open or close at-grade crossings and implement left-turn restrictions over the LRT tracks in the City of Huntington Park:
  - Open crossings previously proposed for closure at Albany Street and Rugby Boulevard
  - Close crossings previously proposed to remain open at Malabar Street and Arbutus Avenue
  - Implement left-turn restrictions at Santa Fe Avenue, Pacific Boulevard, Miles Avenue, and State Street
- Modify roadway design at the southeast corner of Florence Avenue and California Avenue to avoid partial acquisition of infrastructure related to a water well.
- Redesign a freight spur track connection north of Rayo Avenue on the west side of the freight tracks to avoid impacts to a spur track.
- Close the private at-grade crossing at Miller Way. The private business will be displaced by the Project.
- Extend the LRT viaduct north of Imperial Highway to avoid impacts to a spur track and full acquisition of a property.
- Reconfigure the I-105/C Line Station parking facility by removing dedicated transit parking on the west side of the freight tracks and expanding the parking facility on the east side of the freight tracks to the north; also add a new driveway entrance to the parking facility at Century Boulevard.
- Eliminate demolition and reconstruction of the Arthur Avenue and Façade Avenue bridges; modify Façade Avenue to an emergency exit only from the I-105/C Line infill station (rather than a station entrance and exit).
- Modify the replacement freight bridge at I-105 to a four-span structure, consistent with the current bridge, rather than the previously proposed two-span structure.
- Replace the proposed pedestrian undercrossing with a pedestrian bridge at Paramount High School that will span the entire rail ROW.
- Realign the MSF site entrance on Somerset Boulevard to align with Bayou Avenue to allow for a signalized pedestrian crossing of Somerset Boulevard.
- Add protected left turn and a traffic signal on Clark Avenue at Los Angeles Street to accommodate dedicated turning movements to the community.

- Modify alignment of the LRT tracks and soundwall at the Bellflower Mobile Home Park to minimize parking loss and provide replacement parking elsewhere on the property to maintain the existing number of parking spaces.
- Redesign retaining walls on the southeast side of the 183rd Street/Gridley Road crossing from retained fill to columns.
- Incorporate the Artesia Historic District Recreation Trails as an existing, rather than future, condition in the Final EIS/EIR plan set.
- Add a design option that will close 186th Street but keep 187th Street open to traffic in the City of Artesia, and turn Corby Avenue into a cul-de-sac with an access driveway for the existing business.
- Modify the entrance to the Pioneer Station parking structure to align with Solana Place and shift structure north to provide alley egress resulting in an additional level on the Pioneer parking structure to maintain the number of parking spaces identified in the Draft EIS/EIR.
- Extend the median located north of the LRT tracks at the Pioneer Boulevard grade crossing to prohibit left turns from a shopping center driveway along the east side.
- Incorporate Mitigation Measures NOI-4 (Crossing Signal Bell Shrouds) and NOI-5 (Gate-Down-Bell-Stop Variance), recommended in the Draft EIS/EIR to further reduce noise at grade crossings, as Project Measure NOI PM-1 and NOI PM-2 in the Final EIS/EIR to be implemented as part of the LPA.
- Add Project Measure VA PM-8 (Residential Screening for Aerial Structures), which requires privacy screening along portions of the aerial structure adjacent to the rear of residential properties in the Cities of Paramount, Bellflower, and Cerritos if the soundwall in those locations will not be sufficiently tall to provide similar privacy screening.
- Add Project Measures BIO PM-1 (Invasive Plant Species Best Management Practices) and BIO PM-2 (Prohibition of Invasive Plant Species in Landscape Plans) to provide options to minimize the spread of invasive species during construction and prohibit the inclusion of invasive species in landscape plans; add Project Measure BIO PM-3 (LA Metro Tree Policy) to require adherence to LA Metro Tree Policy, adopted by Metro in October 2022.
- Add Project Measure CR PM-1 (Secretary of the Interior Standards Design Review), which requires review and approval of the design of the new LRT bridge and C Line station that will be constructed within the Century Freeway-Transitway Historic District and extension of the Union Pacific LA River Rail Bridge's existing concrete piers by a professional who meets the Secretary of the Interior's Professional Qualification Standards in architectural history, history, or architecture.

Refinements also included the following modifications to construction laydown/staging areas:

- Relocate the construction laydown area near State Street and Randolph Street to east of State Street in the railroad ROW.
- Relocate the laydown area at the southeast corner of Imperial Highway and Garfield Place to north of Imperial Highway within the San Pedro Subdivision ROW.
- Locate a construction laydown/staging area on the east side of the ROW between Rayo Avenue and Southern Avenue.

Additionally, refinements included changes to traction power substations (TPSS) site locations:

- Relocate TPSS Site 14 from the northwest corner of Randolph Street and State Street to the east within railroad ROW.
- Eliminate optional TPSS Sites 16E and 12E in the City of Huntington Park.
- Add Optional TPSS Site 7E within the reconfigured parking facility east of the tracks at the I-105/C Line Station parking facility.
- Relocate the proposed TPSS Site 2 from the northwest side of the intersection of 183rd Street/Gridley Road to the southeast side.

2.2.2 Alignment Configuration

This section summarizes the LPA alignment. The general characteristics of the LPA are summarized in Table 2.2. Figure 2-3 illustrates the freeway crossings along the alignment. Additionally, the LPA will require relocation of existing freight rail tracks within the ROW to maintain existing operations where freight tracks will be in a shared corridor with the LRT tracks. Figure 2-2 depicts the alignment sections that will require freight track relocation.

Table 2.2. Summary of LPA Components

Component	Quantity
Alignment length	14.5 miles
Length of at-grade and aerial	12.1 miles at-grade; 2.4 miles aerial[1]
Station configurations	9 along WSAB alignment, 1 at-grade infill station along C Line 3 aerial; 6 at-grade
Parking facilities	5 total: 4 surface lots and 1 parking structure (approximately 2,800 spaces)
At-grade crossings	30
Elevated street crossings	15
Freight crossings	6
Freeway crossings	4 (1 aerial/overcrossing at I-105; 3 freeway undercrossings[2] at I-710, I-605, SR 91)
Freight realignment	8.7 miles
River crossings	3 (Rio Hondo, LA River and San Gabriel)
TPSS facilities	17
Maintenance and Storage Facility site	1 (City of Bellflower)

Source: WSP 2023
Notes: [1] Alignment configuration measurements count retained fill embankments as at-grade.
[2] The light rail tracks crossing beneath freeway structures.
LA = Los Angeles; TPSS = traction power substation; WSAB = West Santa Ana Branch

Figure 2-3. Freeway Crossings

Source: WSP 2023

The total alignment length of the LPA will be approximately 14.5 miles, consisting of approximately 12.1 miles of at-grade and 2.4 miles of aerial alignment. The LPA will include nine new LRT stations along the WSAB alignment, of which six will be at-grade and three will be aerial. Additionally, the Project will add one new infill station along the C Line at I-105 to allow transfers between the WSAB alignment and the C Line. Five of the stations will include parking facilities, providing a total of approximately 2,800 dedicated transit parking spaces. Four of the parking facilities will be surface lots and the fifth will be a parking structure. The alignment will include 30 at-grade crossings, 4 freeway crossings (3 freeway undercrossings and 1 aerial freeway crossing), 3 river crossings, 15 aerial road crossings, and 6 freight crossings. The following further describes the LPA along the alignment.

Northern terminus (City of Los Angeles/Florence-Firestone community of LA County): The northern terminus of the LPA will begin at the Slauson/A Line Station, which will serve as a transfer point to the Metro A Line. Transfers between the Slauson/A Line Station and the existing Metro A Line will be accommodated via two pedestrian bridges between the two station platforms. The pedestrian bridges will be located at the southern and northern ends of the platforms and will be accessed by stairs, escalators, and/or elevators. Stairs, escalators, and/or elevators will also connect with the street level on the north side of the station, while stairs will connect with the street level on the south side of the station. An additional set of stairs will be added to the existing A Line Station providing access to street level. Tail tracks[3] accommodating layover storage for a three-car train will extend approximately 1,000 feet north from the station.

La Habra Branch ROW[4] (City of Huntington Park): South of the Slauson/A Line Station, the alignment will turn east along the existing UPRR owned La Habra Branch ROW in the median of Randolph Street. The alignment will be on the south side of the La Habra Branch ROW, and the freight tracks will be realigned but remain in the northern portion of the ROW. The alignment will transition to an at-grade configuration west of Alameda Street and will proceed east along the Randolph Street median. Wilmington Avenue, Regent Street, and Malabar Street will be closed to traffic crossing the ROW, altering the intersection design to a right-in, right-out configuration. The Pacific/Randolph Station will be located just east of Pacific Boulevard. From the Pacific/Randolph Station, the alignment will continue east at-grade. Arbutus Avenue and Rita Avenue will be closed to traffic crossing the ROW, altering the intersection design to a right-in, right-out configuration.

San Pedro Subdivision ROW (Cities of Huntington Park, Bell, Cudahy, South Gate, Downey, and Paramount): At the San Pedro Subdivision ROW, the alignment will transition to an aerial configuration and turn south to cross over Randolph Street and the freight tracks, returning to an at-grade configuration north of Gage Avenue. The alignment will be located on the east side of the existing San Pedro Subdivision ROW freight tracks, and the existing track(s) will be relocated to the west side of the ROW. The alignment will continue at-grade within the San Pedro Subdivision ROW to the at-grade Florence/Salt Lake Station south of Florence Avenue.

[3] Tail tracks are additional tracks that extend beyond the end of the mainline tracks and can be used for temporarily parking, storing, or reversing the direction of trains. While the tracks are designed to allow for layover if needed, trains will not sit at the end of the line.

[4] The La Habra Branch may also be referred to as the La Habra Subdivision. La Habra Branch is used within this document.

The alignment will continue southeast from the at-grade Florence/Salt Lake Station within the San Pedro Subdivision ROW, crossing Otis Avenue, Santa Ana Street, and Ardine Street at-grade. The alignment will be located on the east side of the existing San Pedro Subdivision freight tracks, and the existing tracks will be relocated to the west side of the ROW. South of Ardine Street, the alignment will transition to an aerial structure to cross over the existing UPRR tracks and Atlantic Avenue. The Firestone Station will be located on an aerial structure between Atlantic Avenue and Firestone Boulevard. The Firestone Station will include a dedicated transit parking facility providing approximately 600 parking spaces with a vehicle underpass under the freight tracks to access the parking facility.

The alignment will then cross over Firestone Boulevard and transition back to an at-grade configuration prior to crossing Rayo Avenue at-grade. The alignment will continue south along the San Pedro Subdivision ROW, crossing Southern Avenue at-grade and continuing at-grade until it transitions to an aerial configuration to cross over the LA River. The LRT bridge will be constructed next to the existing freight bridge. South of the LA River, the alignment will transition to an at-grade configuration, then passing under the I-710 freeway through a new box tunnel structure. The alignment will then return to an aerial structure to cross over the Rio Hondo Channel. South of the Rio Hondo Channel, the alignment will transition to an aerial structure to cross over a realigned spur track, Imperial Highway and Garfield Avenue. South of Garfield Avenue, the alignment will transition to an at-grade configuration and serve the Gardendale Station north of Gardendale Street.

From the Gardendale Station, the alignment will continue south in an at-grade configuration, crossing Gardendale Street and Main Street to serve the I-105/C Line Station, which will be located at-grade north of Century Boulevard. The I-105/C Line Station will include a dedicated transit parking facility providing approximately 340 to 360 parking spaces, depending on the location of the TPSS. The alignment will continue at-grade, crossing Century Boulevard, then will cross over the I-105 freeway in an aerial configuration within the existing San Pedro Subdivision ROW bridge footprint. A new Metro C Line Station will be constructed in the median of the I-105 freeway. The I-105/C Line Station will be connected to the new infill C Line Station in the middle of the freeway via a pedestrian walkway on the new LRT bridge. Vertical pedestrian access will be provided from the LRT bridge to the new C Line Station platform via stairs, escalators, and/or elevators. Emergency egress from the C Line Station will also be provided at Façade Avenue via stairs and elevators. To accommodate construction of the new station platform, the existing Metro C Line tracks will be widened and, as part of the I-105 Express Lanes Project, the I-105 lanes will be reconfigured.

PEROW (Cities of Paramount, Bellflower, Cerritos, and Artesia): South of the I-105 freeway, the alignment will continue at-grade within the San Pedro Subdivision ROW. In order to maintain freight operations and allow for freight train crossings, the alignment will transition to an aerial configuration as it turns southeast and enter the PEROW. The existing freight track will cross beneath the aerial alignment and align on the north side of the PEROW east of the San Pedro Subdivision ROW. The Paramount/Rosecrans Station will be located in an aerial configuration west of Paramount Boulevard and north of Rosecrans Avenue. The existing freight track will be relocated to the northeast side of the alignment adjacent to the viaduct structure. The Paramount/Rosecrans Station will include a dedicated transit parking facility providing approximately 490 parking spaces located south of the alignment between Los Angeles Department of Water and Power property and Rosecrans Avenue.

The alignment will continue southeast in an aerial configuration over the Paramount Boulevard/Rosecrans Avenue intersection and descend to an at-grade configuration. The alignment will return to an aerial configuration to cross over Downey Avenue descending back to an at-grade configuration north of Somerset Boulevard. The existing Paramount High School pedestrian bridge will be reconstructed over the LPA and freight tracks to maintain the connection between Paramount High School and the athletics fields. One of the adjacent freight storage tracks at the World Energy facility will be relocated to accommodate the new LRT tracks and maintain storage capacity. There are no active freight tracks south of the World Energy facility (Somerset Boulevard).

The alignment will cross Somerset Boulevard at-grade. South of Somerset Boulevard, the at-grade alignment will parallel the existing Bellflower Bike Trail that is currently aligned on the south side of the PEROW. The alignment will continue at-grade crossing Lakewood Boulevard, Clark Avenue, and Alondra Boulevard. The at-grade Bellflower Station will be located west of Bellflower Boulevard. The Bellflower Station will include a dedicated transit parking facility providing approximately 260 parking spaces.

East of Bellflower Boulevard, the Bellflower Bike Trail will be realigned to the south side of the PEROW to accommodate an existing historic building located near the southeast corner of Bellflower Boulevard and the PEROW. The realigned bike trail will then match the existing bike trail east of the historic building near Bellflower Boulevard. The LRT alignment will continue southeast within the PEROW and transition to an aerial configuration near Cornuta Avenue, crossing over Flower Street and Woodruff Avenue. The alignment will return to an at-grade configuration south of Woodruff Avenue. South of Woodruff Avenue, the Bellflower Bike Trail will be realigned along the north side of the PEROW. Continuing southeast, the LRT alignment will cross under the SR-91 freeway in an existing undercrossing. The alignment will cross over the San Gabriel River on a new bridge, replacing the existing abandoned freight bridge. South of the San Gabriel River, the alignment will transition back to an at-grade configuration before crossing Artesia Boulevard at-grade.

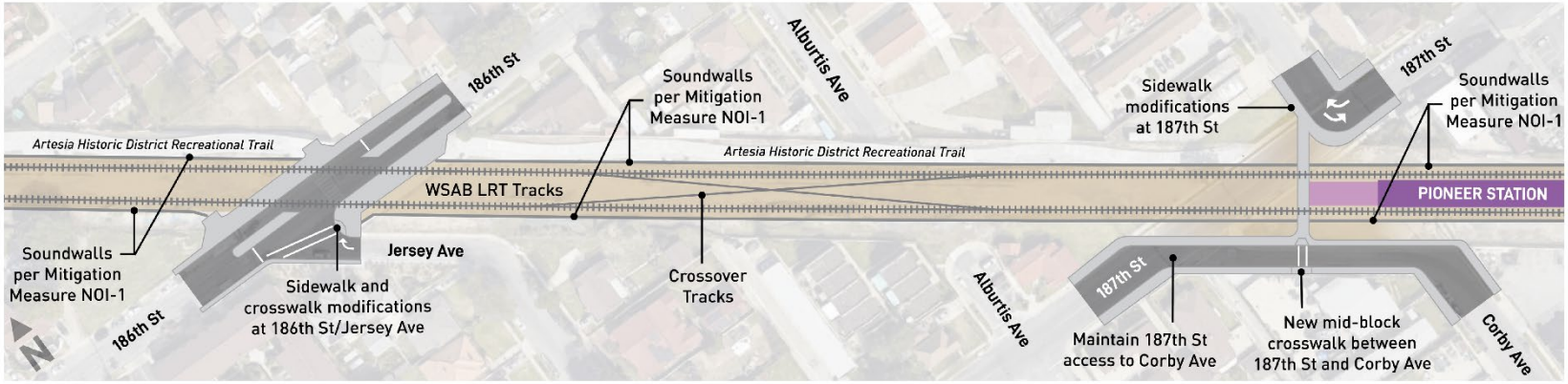
East of Artesia Boulevard, the alignment will cross beneath the I-605 freeway in an existing underpass. Southeast of the underpass, the alignment will continue at-grade, crossing Studebaker Road. North of Gridley Road, the alignment will transition to an aerial configuration to cross over 183rd Street and Gridley Road. The alignment will return to an at-grade configuration and cross 186th Street and 187th Street at-grade. The alignment will then pass through the Pioneer Station on the north side of Pioneer Boulevard at-grade. The Pioneer Station will include a dedicated transit parking facility providing approximately 1,100 parking spaces. Tail tracks accommodating layover storage for a three-car train will extend approximately 1,000 feet south from the station, crossing Pioneer Boulevard and terminating north of South Street.

2.2.3 Design Option – Close 186th Street

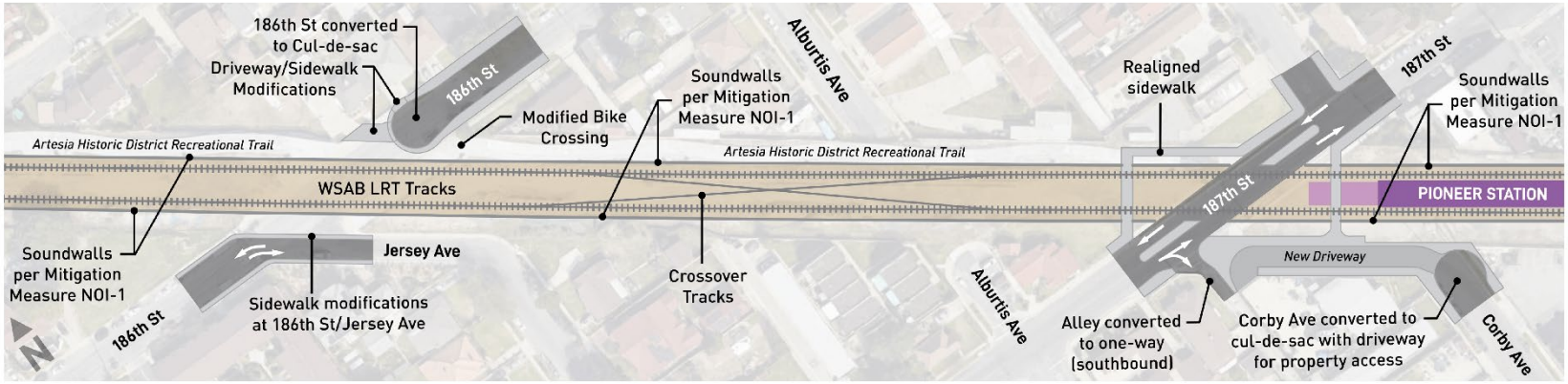
The LPA includes one design option:

- **Design Option:** Close 186th Street – The design option would close 186th Street but keep 187th Street open to traffic in the City of Artesia. Corby Avenue would become a cul-de-sac with an access driveway for the existing business (Figure 2-4).

Figure 2-4. Locally Preferred Alternative and Design Option: Close 186th Street



Locally Preferred Alternative



Design Option 1: Close 186th Street

Source: Cityworks Design and WSP 2023

2.2.4 Maintenance and Storage Facility

Generally, each LRT project requires an MSF facility to provide daily servicing and cleaning, inspection and repairs, and storage of light rail vehicles (LRVs). Activities may take place in the MSF throughout the day and night depending upon train schedules, workload, and the maintenance requirements.

In January 2022, the Metro Board identified the Bellflower MSF as the WSAB Project's MSF site. The MSF site is located in the City of Bellflower and is bounded by a mobile home community and industrial facilities to the west, Somerset Boulevard and apartment complexes to the north, residential homes to the east, and the PEROW and Bellflower Bike Trail to the south. Access to the site will be via a signalized driveway at Somerset Boulevard and Bayou Avenue (Figure 2-5). In total, the MSF site is approximately 21 acres and could accommodate up to 80 LRVs to serve the Project's operations plan.

The MSF will have storage tracks, each with sufficient length to store three-car train sets and a maintenance-of-way vehicle storage. The facility will include a main shop building with administrative offices, a cleaning platform, a TPSS, employee parking, a vehicle wash facility, a paint and body shop, and other facilities as needed. The east and west yard leads (i.e., the tracks leading from the mainline to the facility) will have sufficient length for a three-car train set.

Figure 2-5. Maintenance and Storage Facility Site

Source: WSP and TAHA 2023

3 REGULATORY FRAMEWORK

The following is a brief summary of the regulatory context under which biological resources are managed at the federal and state levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources and are discussed in further detail below. Agencies with the responsibility and regulatory guiding documents for protection of biological resources within the Affected Area include:

- USACE: wetlands and other waters of the United States
- USFWS: federally listed species and migratory birds
- CDFW (formerly California Department of Fish and Game): riparian areas and other waters of the State, state-listed species
- RWQCB: waters of the State

3.1 Federal

3.1.1 Federal Endangered Species Act

The federal Endangered Species Act of 1973 (ESA) provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The lead federal agencies for implementing ESA are the USFWS and the National Marine Fisheries Service (NMFS), a division of the United States National Oceanic and Atmospheric Administration Fisheries Service. The USFWS maintains a worldwide list of federally listed and candidate species, including birds, insects, fish, reptiles, mammals, crustaceans, and plants.

The law requires federal agencies, in consultation with the USFWS and/or NMFS, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes a "taking" (defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct") of any listed species. Likewise, the import, export, interstate, and foreign commerce of listed species are all generally prohibited.

3.1.2 Clean Water Act and United States Army Corps of Engineers

Under Section 404 of the Clean Water Act (CWA), the USACE has authority to regulate activities that result in the discharge of dredged or fill material to waters of the United States. Perennial and intermittent streams, wetlands, open waters, and ephemeral channels are considered jurisdictional waters of the United States if they are hydrologically connected and/or have a significant nexus to other jurisdictional waters. The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the CWA, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any dredge, fill, or adverse modification of jurisdictional wetlands will require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through compensatory mitigation involving the creation or enhancement of similar habitats.

Section 408 of the Rivers and Harbors Appropriation Act of 1899 (RHA) provides that the Secretary of the Army may, on the recommendation of the Chief of Engineers, grant permission for the alteration of a public work (including USACE-constructed levees and flood-control channels) so long as that alteration is not injurious to the public interest and will not impair the usefulness of the work. Alterations refer to any action by any entity other than USACE that builds upon, alters, improves, moves, occupies, or otherwise affects the usefulness, or the structural or ecological integrity, of a USACE project. Alterations also include actions approved as encroachments. Any such alteration will require technical review by USACE for consistency with Section 408 and subsequent permission prior to the start of work.

3.1.3 State Water Resources Control Board

The SWRCB and nine RWQCBs (Water Boards) are responsible for implementing CWA Sections 401, 402, and 303(d) within California, including by issuing Section 401 Water Quality Certifications and Section 402 National Pollutant Discharge Elimination System (NPDES) Permits. Issuance of a Section 401 Certification requires documenting compliance with state water quality standards, including watershed plans, designated beneficial uses, and the total maximum daily load program. Pursuant to the Porter-Cologne Water Quality Control Act (Cal. Water Code § 13000 et seq.), the Water Boards may also assert authority over waters of the State, which may include features that are not waters of the United States. The *Porter-Cologne Act* requires the regulation of all pollutant discharges, including wastes in project runoff that could affect the quality of the state's water. Any entity proposing to discharge a waste must file a Report of Waste Discharge with the appropriate Water Board.

3.1.4 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA; 16 United States Code [USC] Section 703-712) implements various treaties and conventions between the United States, Canada, Japan, Mexico, and Russia for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful. Unless permitted by regulations, the MBTA provides that it is unlawful to "pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not." According to the MBTA, a person, association, partnership, or corporation that violates the MBTA or its regulations is guilty of a misdemeanor and subject to a fine of up to $500, jail up to six months, or both. Anyone who knowingly takes a migratory bird and intends to, offers to, or actually sells or barters the bird is guilty of a felony, which carries fines of up to $2,000, jail time of up to two years, or both. Permissible fines are increased significantly by the Sentencing Reform Act of 1984, as amended in 1987. The MBTA should not be construed to prevent states and territories from making or enforcing laws or regulations not inconsistent with the MBTA or which give further protection to migratory birds, nests, and eggs, if such laws and regulations do not extend open seasons.

3.1.5 Executive Order 13112 – Invasive Species

Executive Order 13112 was issued in 1999 to enhance federal coordination and response to the complex and accelerating problem of invasive species. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Pursuant to

Executive Order 13112, measures must be taken to prevent the spread or infestation of invasive species. Invasive species are those identified on the USDA Federal Noxious Weed List (2010), California Department of Food and Agriculture Noxious Weed List (2021), and Cal-IPC Inventory (2022).

3.1.6 United States Fish and Wildlife Service and National Marine Fisheries Service

The USFWS implements the MBTA and the *Bald and Golden Eagle Protection Act of 1940* (16 USC Section 668). The Fish and Wildlife Coordination Act (15 USC 742a, et seq.) requires that any federal agency that proposes to control or modify any body of water must first consult with USFWS or the NMFS, as appropriate, with a view to the conservation of wildlife resources. The USFWS and NMFS share responsibility for implementing the federal ESA (16 USC § 153 et seq.). The USFWS generally implements the federal ESA for terrestrial and freshwater species, while the NMFS implements the federal ESA for marine and anadromous species. Projects that would result in a "take" of any federally listed species are required to obtain permits from the USFWS and/or NMFS through consultation under either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of federal ESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species.

"Take" under federal definition means to "harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Proposed or candidate species do not have the full protection of federal ESA; however, the USFWS and NMFS advise project applicants that species could be elevated to listed status at any time.

3.2 State

3.2.1 California Endangered Species Act

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, plants, and their respective habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. The CESA prohibits the "take" of state-listed threatened, endangered, or fully protected species (Fish and Game Code Section 2050 et. seq.). Under CESA, the "take" of a species is restricted to direct mortality of a listed species and does not prohibit indirect harm by way of habitat modification. The CESA allows for take incidental to otherwise lawful activity. The CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project-caused losses of listed species. The CDFW will work with all interested persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats.

3.2.2 California Department of Fish and Wildlife

The CDFW derives its authority from the California Fish and Game Code (Code) of California. Code Sections 3503, 3503.5, and 3511 describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the Code protects all birds of prey and

their eggs and nests against take, possession, or destruction of nests or eggs. The CDFW also prohibits take for species designated as fully protected under the Fish and Game Code.

Species of Special Concern (SSC) is a category used by the CDFW for those species that are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Under this category, SSC do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands.

The CDFW also has authority to administer the *Native Plant Protection Act* (NPPA; Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the NPPA, the owner of land where a rare or endangered native plant occurs is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of the plant(s).

Rivers, streams, and lakes, and associated wetlands and riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 et seq. of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over work within the stream zone (which could extend to the 100-year floodplain) consisting of, but not limited to, the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream, or lake.

3.3 Regional

3.3.1 Los Angeles Regional Water Quality Control Board

The SWRCB and the Los Angeles RWQCB have jurisdiction over "waters of the State," pursuant to the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements regarding discharges to "isolated" waters of the State (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the USACE to be Outside of Federal Jurisdiction). The Los Angeles RWQCB enforces actions under this general order for isolated waters not subject to federal jurisdiction and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the CWA for waters subject to federal jurisdiction.

3.4 Local

The Project traverses 12 local jurisdictions, including the Cities of Los Angeles, Vernon, and Huntington Park, the unincorporated Florence-Firestone community of LA County, and the Cities of Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Artesia, and Cerritos.

3.4.1 City of Los Angeles General Plan

Natural resources within the City of Los Angeles limits are regulated according to the City of Los Angeles General Plan Natural Resources Element. The Conservation and Natural Resources Element of the City of Los Angeles General Plan contains policy for the protection of open space; biological resources, including LA County designation of Significant Ecological Areas, and local water resources (City of Los Angeles 2001). The policies anticipate

potential impacts to biological resources from the land uses and activities that will occur under the General Plan and serve to avoid, reduce, and/or mitigate those impacts.

3.4.2 City of Los Angeles Preservation of Oak Trees

Within the City of Los Angeles Municipal Code (LAMC) Chapter IV Public Welfare (2005) and Ordinance No. 153,478, there are provisions for the protection of native oak (*Quercus* spp.) trees larger than 8-inches diameter-at-breast-height (DBH). In addition, protections include other native trees (e.g., bay [*Umbellularia* spp.], sycamore [*Platanus* spp.], walnut [*Juglans* spp.]) having more than a 4-inch cumulative (i.e., total diameter of multi-trunk) DBH.

3.4.3 City of Los Angeles Municipal Code

Per Section 46 (Protected Tree Regulations) of the LAMC, removal of trees is defined as any act that will cause a protected tree to die, including but not limited to, acts that inflict damage upon the root system or other part of the tree 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. Removal or relocation of street trees and protected native trees regulated by the City of Los Angeles requires a permit to be obtained from the Board of Public Works.

3.4.4 City of Vernon General Plan

The City of Vernon General Plan Resources Element establishes goals and policies to preserve open space, including the Los Angeles River and for the planting and maintenance of street trees.

3.4.5 City of Vernon Street Trees Ordinance

Chapter 12.28 of the City of Vernon Municipal Code regulates the planting, maintenance, and removal of trees in the public ROWs and on city-owned property. It regulates the species of tree that can be planted and requires a Planting Plan. Additionally, the ordinance regulates the removal and pruning of street trees.

3.4.6 City of Huntington Park General Plan

The City of Huntington Park General Plan Conservation Element contains goals and policies for the protection of water resources. Existing and potential natural resources in the City of Huntington Park are limited as the city does not contain any forests, bodies of water, or substantial plant or animal habitats.

3.4.7 Huntington Park Municipal Code

Section 7-5.204 of the Huntington Park Municipal Code is specific to street trees. As discussed therein, “No person shall plant or remove any City tree, shrub, or plant without first obtaining a permit to do so from the Director. The Director shall further have the authority to impose any conditions on the approval of such permits as are deemed necessary by the Director to fulfill the purpose and intent of this chapter.” Additionally, Section 7-5.212 states, “If the owner or agent of private property, in front of which a parkway tree is planted, wishes to have the parkway tree removed, he or she must file a written request with the Director, on a form to be provided by the Director. The Director may approve or deny such requests. The Director shall not consider requests for the removal of a parkway tree from

anyone other than the owner or agent of the private property in front of which the subject parkway tree is planted."

3.4.8 Los Angeles County General Plan 2035

The LA County General Plan Conservation and Natural Resources Element contains a number of policies and goals related to protection of biological resources. These polices are related to habitat linkages, riparian habitat, streambeds and wetlands, woodlands, chaparral, coastal sage scrub, and Significant Ecological Areas and Coastal Resources Areas.

The Florence-Firestone community of LA County is located in an urbanized area adjacent to the City of Huntington Park and generally lacks these resources.

3.4.9 Los Angeles County Oak Tree Ordinance

The LA County Oak Tree Ordinance prohibits damage or removal of native oak trees, without a permit, which are:

- Eight inches or more in diameter (25 inches or more in circumference) as measured four and one-half (4.5) feet above mean natural grade (i.e., DBH), or
- Oaks with multiple trunks a combined DBH of 12 inches (28 inches or more in circumference) or more of the two (2) largest trunks

3.4.10 City of Bell General Plan

The City of Bell General Plan Open Space/Conservation/Recreation Element identifies policies and goals for the protection of natural and manmade resources, including soil, water, air, and historic resources. Open space and parks are also discussed.

3.4.11 City of Bell Municipal Code

According to Section 12.24.060 of the Bell Municipal Code, "Whenever the owner or person in possession of a lot desires to have a tree removed from an abutting parkway, he or she shall file a written request therefor for approval by the city council. If the tree is found to be in good condition and the request is granted solely for the convenience of the applicant, then the full cost of such removal and replanting as necessary, shall be borne by the person making such request and the estimated amount, as determined by the director, shall be paid to the recreation and parks department before removal shall take place."

3.4.12 City of Cudahy General Plan

The City of Cudahy is currently updating its General Plan. The Draft General Plan includes a Conservation Element that notes that the urbanized areas of LA County, including the City of Cudahy, are not noted for forests and that natural vegetation consists mainly of wild grasses and scattered trees and brush. While there are many endangered, rare, and threatened animals and plants in the Southern California region, studies and surveys in Cudahy have not identified the presence of any endangered, rare, or threatened plants or animals. However, the General Plan update contains a goal to preserve the environment through the conservation of resources.

3.4.13 City of South Gate General Plan

The City of South Gate General Plan Green City Element contains goals and policies for the conservation of waters, forests, soils, rivers, wildlife, and fisheries. Policies include the protection of rare or endangered species, protection of street trees, and efforts to improve the riverfronts and naturalize the Los Angeles River and Rio Hondo Channel.

3.4.14 City of South Gate Municipal Code

According to Section 5.33 of South Gate Municipal Code, "No person, but for a person undertaking official business for the City of South Gate, shall plant, remove, relocate, damage, excessively prune or cut or encroach into the protected zone or any public tree within the City of South Gate without first obtaining a permit from the director of public works and paying the required fee. No such permit shall be valid for a period greater than ninety days after the date of its issuance and shall thereafter be null and void unless extended in writing by the director of public works." Additionally, "The director of public works may impose any condition he/she deems necessary, to carry, out the purpose and intent of this chapter. The applicant must bear all costs of performing or executing any condition ordered by the director of public works. No permit shall be issued unless the applicant, in writing, accepts the conditions and agrees to observe same. Conditions may include, but are not limited to, any of the following:

(a) Replacing the public tree with a tree or trees, including a boxed tree or trees, of a species and size designated by the director of public works;
(b) Relocating the public tree to a location approved in writing by the director of public works. Prior to permit issuance a written report from an arborist shall be submitted to the director of public works describing the relocation method to be used and providing the city with a three-year guarantee of survival;
(c) Payment of restitution for the public tree in the amount determined by the director of public works;
(d) Any other condition the director of public works deems reasonable and appropriate."

3.4.15 City of Downey Vision 2025

Chapter 4 of the City of Downey Vision 2025 General Plan, Conservation Chapter, contains goals and policies for the protection of water supply, water quality, and trees. The tree policies discourage the removal of trees on public or private property.

3.4.16 City of Downey Municipal Code

According to Section 7605 of the Downey Municipal Code, "Any street tree removed shall be replaced if a replacement is deemed appropriate and if it is mutually agreed to by both the City and the property owner. The replacement tree shall be selected in accordance with the official Tree Species List and Master Street Tree Plan. No public street tree will be removed/planted without having obtained a permit from the Public Works Department."

3.4.17 City of Paramount General Plan

The City of Paramount General Plan Resource Element provides policies for the development and preservation of open space, natural resources, and landscaping and city beautification. The natural resource policies focus on air and water quality.

3.4.18 City of Bellflower General Plan

The City of Bellflower General Plan Conservation Element contains policies for the preservation and enhancement of public and private vegetation. The policies focus on the landscaped environment.

3.4.19 City of Artesia General Plan 2030

The City of Artesia General Plan 2030 Open Space and Conservation Sub-Element focuses on parks and recreational facilities. The Sub-Element discusses the city's urbanized condition, and no rare or endangered plant or animal species have been identified. Additionally, there are no significant natural habitats in the city. Wildlife species present in the city are typical of any disturbed, highly urbanized setting and are not considered rare, endangered, or threatened. The city is also devoid of wetland and riparian habitat. The city's most significant plant resources are imported trees and ornamental plants.

3.4.20 City of Cerritos General Plan

The City of Cerritos General Plan Conservation Element contains policies and goals for the conservation of water and biological resources. The biological resources section focuses on a community forest as the city lacks other biological resources as it is highly urbanized.

3.4.21 City of Cerritos Tree Ordinance

Chapter 9.75 of the City of Cerritos Municipal Code establishes goals, policies, and regulations that will ensure compliance with the city's objective to create and maintain a community forest as an essential element of the city's character. It provides regulations for residential, commercial, and industrial properties as well as regulation of trees in parkways and roadways.

3.4.22 City of Cerritos Municipal Code

According to Section 9.75.205 of the Cerritos Municipal Code, "No person shall plant, remove, cut, prune, root prune, apply pesticides or otherwise disturb any city tree." There are no provisions for replacements of impacted trees.

3.4.23 LA Metro Tree Policy

It is the policy of Metro to protect trees impacted by construction activity, including a sustainable and robust tree replacement and establishment program for when tree removals are unavoidable. The policy requires the preparation of a tree protection plan identifying tree protection zones for trees designated for retention. Where tree removal is required, a plan will be prepared that either replaces removed trees at a ratio of 2:1 or replaces in-kind with trees that are a minimum size of 36-inch standard box (i.e., young trees with a large root ball). The policy also requires engagement with representatives of local jurisdictions and community stakeholders prior to selecting the appropriate species and location for replacement trees.

4 AFFECTED ENVIRONMENT/EXISTING CONDITIONS

4.1 General Corridor-wide Conditions

4.1.1 Topography and Soils

The Affected Area is located in the Los Angeles Basin, which is an oval-shaped, alluvial plain spanning approximately 40 miles northwest to southeast. The Los Angeles Basin is bordered by the Santa Monica Mountains on the north, the Puente Hills to the east, the Pacific Ocean to the west, and the Santa Ana Mountains to the south. The topography of the Affected Area is generally flat and includes commercial urban lands and roads and channelized drainages. Elevation ranges from 50 feet to 175 feet above mean sea level. Based on the most recent soil survey (USDA 2017b), the Affected Area contains four map units:

- Urban land, commercial, 0 to 5 percent slopes
- Urban land-Hueneme, drained-San Meridio complex, 0 to 2 percent slopes
- Urban land-Metz-Pico complex, 0 to 2 percent slopes/floodplains
- Urban land, frequently flooded, 0 to 5 percent slopes

Typic Xerorthents soil series is the main component of the Commercial Urban Lands map unit and consists of soils that formed in alluvium derived from granite. This soil type is typically found in alluvial fans and alluvial plains. The Hueneme, San Meridio, Pico, Metz soil series are poorly to well drained soils derived from granite and/or sedimentary rock covered with discontinuous human-transported material. These soils are typically found on alluvial fans and coastal plains. The Urban land with frequent flooding map unit constitutes the channelized rivers in the project vicinity and consists of discontinuous human-transported material.

4.1.2 Land Cover and Vegetation

The LPA will be within previously developed areas such as public ROW (streets) and industrial, commercial, and residential areas.

4.1.2.1 Urban/Developed Lands

Urban/developed lands include areas that have been developed with structures, streets, sidewalks, or other hardscape elements or otherwise physically altered to an extent that native vegetation is no longer supported. Urban/developed lands are characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Areas that have been physically disturbed (by previous human activity) and are no longer recognizable as a native or naturalized vegetation association, but continue to retain a soil substrate, may also be considered urban/developed lands.

Specifically, areas identified as urban/developed lands within the Affected Area include paved roads and associated landscaping. Landscaping incorporates both native and non-native species, although non-native and invasive plant species are more prevalent than native species. Native species include, but are not limited to: coast live oak (*Quercus agrifolia*), various other oaks (*Quercus* spp.), California black walnut (*Juglans californica*), juniper (*Juniperus* sp.), and elderberry (*Sambucus nigra*). Non-native species include, but are not limited to: gum trees (*Eucalyptus globulus, E. camaldulensis, E. spp.*), Peruvian pepper (*Schinus molle*), tree of Heaven (*Ailanthus altissima)*, various pines (*Pinus* spp.), persimmon (*Diospyros* sp.), Canary Island date palm (*Phoenix canariensis*), Mexican fan palm (*Washingtonia robusta*),

queen palm (*Syagrus romanzoffiana*), and various other palms (*Phoenix* sp., *Washingtonia* sp.), coast myoporum (*Myoporum laetum*), Callery pear (*Pyrus calleryana*), black locust (*Robinia pseudoacacia*), lemon (*Citrus limon*), various ornamental figs (*Ficus* spp.), bird of paradise (*Stelitzia reginae*), bottlebrush (*Callistemon* sp.), and oleander (*Nerium oleander*).

4.1.2.2 Drainages

The LPA will cross drainages within the headwaters of the Los Angeles River at three locations (Figure 4-1). The LPA will cross the Los Angeles River and the Rio Hondo Channel (a tributary to the Los Angeles River) near I-710, and the San Gabriel River at SR-91 in the City of Bellflower. The streambeds at the proposed crossings are entirely channelized and consist of concrete with scattered ruderal and emergent wetland plant species, such as spikerush (*Eleocharis* sp.), within seams in the concrete. However, the vegetation does not constitute an intact wetland vegetation community because of the extremely sparse distribution. In addition, the LPA will cross numerous storm drain systems. However, these storm drains consist primarily of belowground concrete pipes. The LPA will not cross any soft-bottomed drainage channels with a natural substrate.

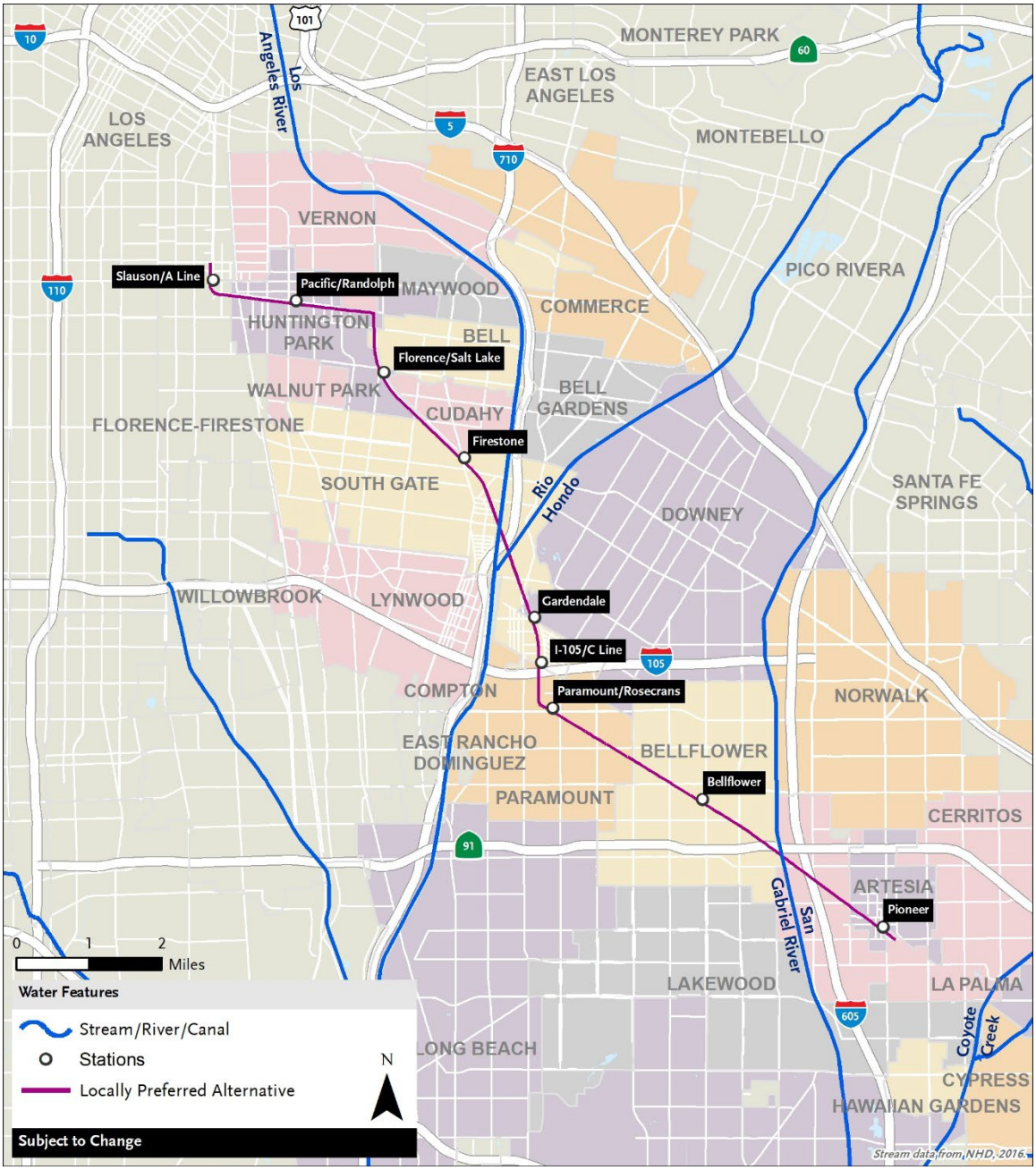
4.1.2.3 General Wildlife

The Affected Area and surrounding areas provide habitat suitable for wildlife species that commonly occur in Southern California urban areas. Wildlife species observed/detected on or adjacent to the Affected Area include the native acorn woodpecker (*Melanerpes formicivorus*), California towhee (*Pipilo crissalis*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), Brewer's blackbird (*Euphagus cyanocephalus*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), western kingbird (*Tyrannus verticalis*), house finch (*Haemorhous mexicanus*), band-tailed pigeon (*Patagioenas fasciata*), Anna's hummingbird (*Calypte anna*), and California ground squirrel (*Otospermophilus beecheyi*), as well as the non-native rock dove (*Columba livia*), house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and fox squirrel (*Sciurus niger*). The identified wildlife species are common in the highly urban developed areas, and none of these species are special-status.

The Los Angeles River, Rio Hondo Channel, and San Gabriel River are all highly channelized and provide limited vegetated riparian habitat for wildlife. However, several species of birds associated with aquatic environments find suitable foraging habitat along the banks with slow-moving water. Several of these species were observed during the reconnaissance survey, primarily at the Los Angeles River and Rio Hondo crossings, including great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), mallard (*Anas platyrhynchos*), black-necked stilt (*Himantopus mexicanus*), western gull (*Larus occidentalis*), and killdeer (*Charadrius vociferous*).

The elevated structures spanning the drainages (i.e., railroad trellises over the Los Angeles River and Rio Hondo Channel and SR-91 overpass over the San Gabriel River) create adequate nesting habitat for several avian species. At the structure crossing over the San Gabriel River, an American kestrel (*Falco sparverius*), northern rough-winged swallows (*Stelgidopteryx serripennis*), and white-throated swifts (*Aeronautes saxatalis*) were observed exhibiting nesting behavior under the SR-91 overpass during the reconnaissance survey. Barn swallows (*Hirundo rustica*) were observed over the Los Angeles River at the SR-91 bridge crossing.

Figure 4-1. Drainage Locations



Project data from WSP and Metro 2022; stream data from NHD 2016. Subject to Change.

4.1.3 Special-Status Biological Resources

This section discusses special-status biological resources observed within the Affected Area during the field survey and evaluates the potential for the Affected Area to support other special-status resources based on existing conditions. Local, state, and federal agencies regulate special-status resources and require an assessment of their presence or potential presence to be conducted within the Affected Area prior to the approval of any proposed development. Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, species occurrence records from the

CNDDB, species occurrence records from other sites in the vicinity of the development boundary, and previous reports from the project area. The potential for each special-status species to occur in the Affected Area was evaluated according to the following criteria:

- *Not Expected*. Habitat on and adjacent to the site is clearly unsuitable for the species' requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- *Low Potential*. Few of the habitat components meeting the species' requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- *Moderate Potential*. Some of the habitat components meeting the species' requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- *High Potential*. All of the habitat components meeting the species' requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- *Present*. Species was observed on the site or has been recorded (e.g., CNDDB, other reports) on the site within the last five years.

For the purpose of this analysis, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS and NMFS under the federal ESA; those listed or proposed for listing as rare, threatened, or endangered by the CDFW under the CESA, and/or those recognized as SSC by the CDFW. In addition, plant species are ranked by the CNPS California Rare Plant Rank system, as follows, with species ranked 1 and 2 considered special-status:

- Rank 1A = Plants presumed extinct in California
- Rank 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
- Rank 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20 percent to 80 percent occurrences threatened)
- Rank 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20 percent of occurrences threatened or no current threats known)
- Rank 2 = Rare, threatened or endangered in California, but more common elsewhere
- Rank 3 = Need more information (a Review List)
- Rank 4 = Plants of Limited Distribution (a Watch List)

Furthermore, biological resources, including vegetation communities, are ranked on a scale, global (G) and state/province (S) 1 through 5, based on NatureServe's (2010) methodologies, as follows, with those alliances ranked G or S as 1 through 3 considered special-status:

- G1 or S1 - Critically Imperiled Globally or State-wide
- G2 or S2 - Imperiled Globally or State-wide
- G3 or S3 - Vulnerable to extirpation or extinction Globally or State-wide
- G4 or S4 - Apparently Secure Globally or State-wide
- G5 or S5 - Secure Globally or State-wide

Plant communities are also considered special-status biological resources if they have limited distributions, have high value for sensitive wildlife, contain special-status species, or are particularly susceptible to disturbance. The CDFW ranks special-status communities as "threatened" or "very threatened" and keeps records of occurrences in CNDDB.

4.1.3.1 Special-Status Species

As previously discussed, a CNDDB search was conducted for the Project. The CNDDB identified 18 special-status plant species and 18 special-status wildlife species within a 5-mile radius of the Affected Area. Table 4.1 provides the species name, status, and habitat requirements for all special-status species identified within a 5-mile radius of the Affected Area. The species' potential to occur within the Affected Area is also discussed.

Special-Status Plant Species

During the site survey, no rare or sensitive plant species were observed within the Affected Area, with the exception of Southern California black walnut (California Rare Plant Rank 4.2), which are planted street trees. While a focused examination during the flowering period for most species was not conducted, based on the existing development and disturbances and lack of suitable habitat, no other special-status plant species are expected to occur.

Special-Status Wildlife Species

During the field assessment, no special-status wildlife species were observed or otherwise detected, though some species (i.e., great blue heron) are considered sensitive when nesting. While individuals were observed, habitat capable of supporting heron rookeries is not present within the Affected Area. Special-status wildlife species typically have very specific habitat requirements that may include, but are not limited to, vegetation communities, elevation levels and topography, and availability of primary constituent elements (i.e., space for individual and population growth, breeding, foraging, and shelter). As the Affected Area consists of mostly developed streets and associated landscaping and street/community trees, most of the special-status wildlife species listed in Table 4.1 are not expected to occur due to lack of suitable habitat. Limited low-quality roosting habitat is available for western mastiff bat (*Eumops perotis californicus*), pallid bat (*Antrozous pallidus*), and silver-haired bat (*Lasionycteris noctivagans*), primarily within buildings as well as existing bridges crossing the Los Angeles River, Rio Hondo Channel, and San Gabriel River. Marginal foraging habitat for big free-tailed bat (*Nyctinomops macrotis*) is also present throughout the Affected Area.

The portions of the Affected Area that cross the aforementioned drainages may provide temporary migratory and foraging territory for reptile species that inhabit slow-moving intermittent streams and seasonal wetlands. The western pond turtle (*Emys marmorata*) has a low potential to occur based on prior development, existing disturbances, and poor habitat quality within the drainages.

Habitat is present within the Affected Area with the potential to support protected nesting birds, including raptor species. The typical nesting season for raptors in coastal Southern California occurs from February 1 to May 31. The reconnaissance survey was conducted in May 2017 and no existing raptor nests were observed.

Table 4.1. Special-Status Plant and Wildlife Species within a 5-Mile Radius of the Affected Area

Scientific Name/ Common Name	Status Federal/State Global/State CRPR*	Habitat Requirements	Potential to Occur in Affected Area	Habitat Suitability/Observations
Plants				
Arenaria paludicola marsh sandwort	FE/SE G1 / S1 1B.1	Marshes and swamps. Growing up through dense mats of *Typha* spp., *Juncus* spp., *Scirpus* spp., etc. in freshwater marsh. Sandy soil. 3-170 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Astragalus tener var. *Titi* coastal dunes milk-vetch	FE/SE G2T1 / S1 1B.1	Coastal bluff scrub, coastal dunes, coastal prairie. Moist, sandy depressions of bluffs or dunes along and near the Pacific Ocean; one site on a clay terrace. 1-45 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Atriplex coulteri Coulter's saltbush	None/None G3 / S1S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. 2-460 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Atriplex parishii Parish's brittlescale	None/None G1G2 / S1 1B.1	Vernal pools, chenopod scrub, playas. Usually on drying alkali flats with fine soils. 5-1420 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Atriplex serenana var. *davidsonii* Davidson's saltscale	None/None G5T1 / S1 1B.2	Coastal bluff scrub, coastal scrub. Alkaline soil. 10-200 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Calystegia felix lucky morning-glory	None/None G1Q / S1	Meadows and seeps, riparian scrub. Sometimes alkaline, alluvial. 30-215 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Centromadia parryi ssp. *Australis* southern tarplant	None/None G3T2 / S2 1B.1	Marshes and swamps (margins), valley and foothill grassland, vernal pools. Often in disturbed sites near the coast at marsh edges; also in alkaline soils, sometimes with saltgrass. Sometimes on vernal pool margins. 0-975 m.	Not Expected	Habitat requirements for species not present within Affected Area. No scattered fields or disturbed areas within the Affected Area provide suitable habitat for the species.

Scientific Name/ Common Name	Status Federal/State Global/State CRPR*	Habitat Requirements	Potential to Occur in Affected Area	Habitat Suitability/Observations
Chloropyron maritimum ssp. *Maritimum* salt marsh bird's-beak	FE/SE G4?T1 / S1 1B.2	Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Helianthus nuttallii ssp. *Parishii* Los Angeles sunflower	None/None G5TH / SH 1A	Marshes and swamps (coastal salt and freshwater). 10-1675 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Juglans californica Southern California black walnut	None/None G3 / S3 4.2	Chaparral, coastal scrub, cismontane woodland. Slopes, canyons, alluvial habitats. 50-900 m.	Present	Individual trees that appear to be ornamental street trees observed along the project alignment. Recommend arborist survey.
Lasthenia glabrata ssp. *Coulteri* Coulter's goldfields	None/None G4T2 / S2 1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	None/None G5T3 / S3 4.3	Chaparral, coastal scrub. Dry soils, shrubland. 4-1435 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Nasturtium gambelii Gambel's water cress	FE/ST G1 / S1 1B.1	Marshes and swamps. Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-330 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Navarretia prostrata prostrate vernal pool navarretia	None/None G2 / S2 1B.1	Coastal scrub, valley and foothill grassland, vernal pools, meadows, and seeps. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Orcuttia californica California Orcutt grass	FE/SE G1 / S1 1B.1	Vernal pools. 10-660 m.	Not Expected	Habitat requirements for species not present within Affected Area.

Scientific Name/ Common Name	Status Federal/State Global/State CRPR*	Habitat Requirements	Potential to Occur in Affected Area	Habitat Suitability/Observations
Phacelia stellaris Brand's star phacelia	None/None G1 / S1 1B.1	Coastal scrub, coastal dunes. Open areas. 1-400 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Pseudognaphalium leucocephalum white rabbit-tobacco	None/None G4 / S2 2B.2	Riparian woodland, cismontane woodland, coastal scrub, chaparral. Sandy, gravelly sites. 35-515 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Sidalcea neomexicana salt spring checkerbloom	None/None G4 / S2 2B.2	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. 0-1530 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Symphyotrichum defoliatum San Bernardino aster	None/None G2 / S2 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams, and springs; disturbed areas. 2-2040 m.	Not Expected	Habitat requirements for species not present within Affected Area.
Insects				
Bombus crotchii Crotch bumble bee	None/None G3G4 / S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	Low	Elements of suitable habitat and foraging species exist within Affected Area. However, the species has not been observed within the vicinity of the Affected Area since 1945.
Danaus plexippus monarch – California overwintering population	FC/None G4T2T3 / S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Not Expected	The two recorded winter roost sites are over 3 miles south of the Affected Area and will not be impacted by the Project. Individuals were observed during the site visit on May 11, 2017.

Scientific Name/ Common Name	Status Federal/State Global/State CRPR*	Habitat Requirements	Potential to Occur in Affected Area	Habitat Suitability/Observations
Reptiles				
Emys marmorata western pond turtle	None/None G3G4 / S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation below 6,000-foot elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Low	Elements of suitable habitat present within Affected Area. However, existing development, disturbances, and invasive species reduce the potential for occurrence. Upland habitat constricted by urban development. Species has not been documented in the vicinity of the Affected Area since the 1980s.
Phrynosoma blainvillii coast horned lizard	None/None G3G4 / S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Not Expected	Habitat requirements for species not present within Affected Area.
Birds				
Agelaius tricolor tricolored blackbird	None/SCE G2G3 / S1S2 SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Not Expected	Habitat requirements for species not present within Affected Area.
Athene cunicularia burrowing owl	None/None G4 / S3 SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not Expected	Habitat requirements for species not present within Affected Area.

Scientific Name/ Common Name	Status Federal/State Global/State CRPR*	Habitat Requirements	Potential to Occur in Affected Area	Habitat Suitability/Observations
Buteo regalis ferruginous hawk	None/None G4 / S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	Low	Scattered fields to support foraging area adjacent to Affected Area. Low potential as a transient in the Affected Area.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FR/SE G5T2T3 / S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, w/lower story of blackberry, nettles, or wild grape.	Not Expected	Habitat requirements for species not present within Affected Area.
Empidonax traillii extimus southwestern willow flycatcher	FE/SE G5T2 / S1	Riparian woodlands in Southern California.	Not Expected	Habitat requirements for species not present within Affected Area.
Falco peregrinus anatum American peregrine falcon	FD/SD G4T4 / S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Low	Low potential as a transient in the Affected Area.
Riparia riparia bank swallow	None/ST G5 / S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not Expected	Habitat requirements for species not present within Affected Area.
Vireo bellii pusillus least Bell's vireo	FE/SE G5T2 / S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, mesquite.	Not Expected	Habitat requirements for species not present within Affected Area.

Scientific Name/ Common Name	Status Federal/State Global/State CRPR*	Habitat Requirements	Potential to Occur in Affected Area	Habitat Suitability/Observations
Mammals				
Antrozous pallidus pallid bat	None/None G5 / S3 SSC	Deserts, grasslands, shrublands, woodlands and forests, occasionally roosting in buildings, culverts, and bridges. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low	Limited roosting habitat available within Affected Area.
Eumops perotis californicus western mastiff bat	None/None G5T4 / S3S4 SSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Low	Limited roosting habitat available within Affected Area.
Lasionycteris noctivagans silver-haired bat	None/None G5 / S3S4	Primarily a coastal and montane forest dweller feeding over streams, ponds, and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes and rarely under rocks. Needs drinking water.	Low	Marginally suitable roosting and foraging habitat is present in the Affected Area.
Nyctinomops macrotis big free-tailed bat	None/None G5 / S3 SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Low	Roosting habitat requirements for species not present within Affected Area, although suitable foraging habitat is present.

Scientific Name/ Common Name	Status Federal/State Global/State CRPR*	Habitat Requirements	Potential to Occur in Affected Area	Habitat Suitability/Observations
Taxidea taxus American badger	None/None G5 / S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not Expected	Extremely limited prey base in urbanized Affected Area. Habitat constricted by urban development.

Source: CDFW 2017, updated by Rincon in 2022

*Key:

BCC = USFWS Bird of Conservation Concern
FC = Federal Candidate Species
FD = Federally Delisted
FE = Federally Endangered
FP = CDFW Fully Protected
FT = Federally Threatened
SCE = State Candidate Endangered
SD = State Delisted
SE = State Endangered
ST = State Threatened
SR = State Rare
SSC = CDFW Species of Special Concern

CRPR (CNPS California Rare Plant Rank):
1A=Presumed Extinct in California
1B=Rare, Threatened, or Endangered in California and elsewhere
2=Rare, Threatened, or Endangered in California, but more common elsewhere
3=Need more information (a Review List)
4=Plants of Limited Distribution (a Watch List)

CRPR Threat Code Extension:
.1=Seriously endangered in California (> 80% of occurrences threatened / high degree and immediacy of threat)
.2=Fairly endangered in California (20-80% occurrences threatened)
.3=Not very endangered in California (<20% of occurrences threatened)

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind 5.
1 = Critically Imperiled
2 = Imperiled
3 = Vulnerable
4 = Apparently Secure
5 = Secure
? = Inexact Numeric Rank
Q = Questionable Taxonomy

The portions of the Affected Area that cross the aforementioned drainages may provide temporary movement corridors for mammals. However, due to the highly developed nature of the surrounding upland, it is unlikely that mammals utilize the channelized drainages. The remainder of the Affected Area consists of highly developed urban areas that are undesirable to wildlife as movement corridors.

4.1.3.2 Special-Status Vegetation Communities

Special-status vegetation communities have not been mapped within the Affected Area. Multiple California black walnut trees were observed within the Affected Area; however, these individuals are planted street trees and do not constitute a special-status walnut forest community.

4.1.3.3 Jurisdictional Resources

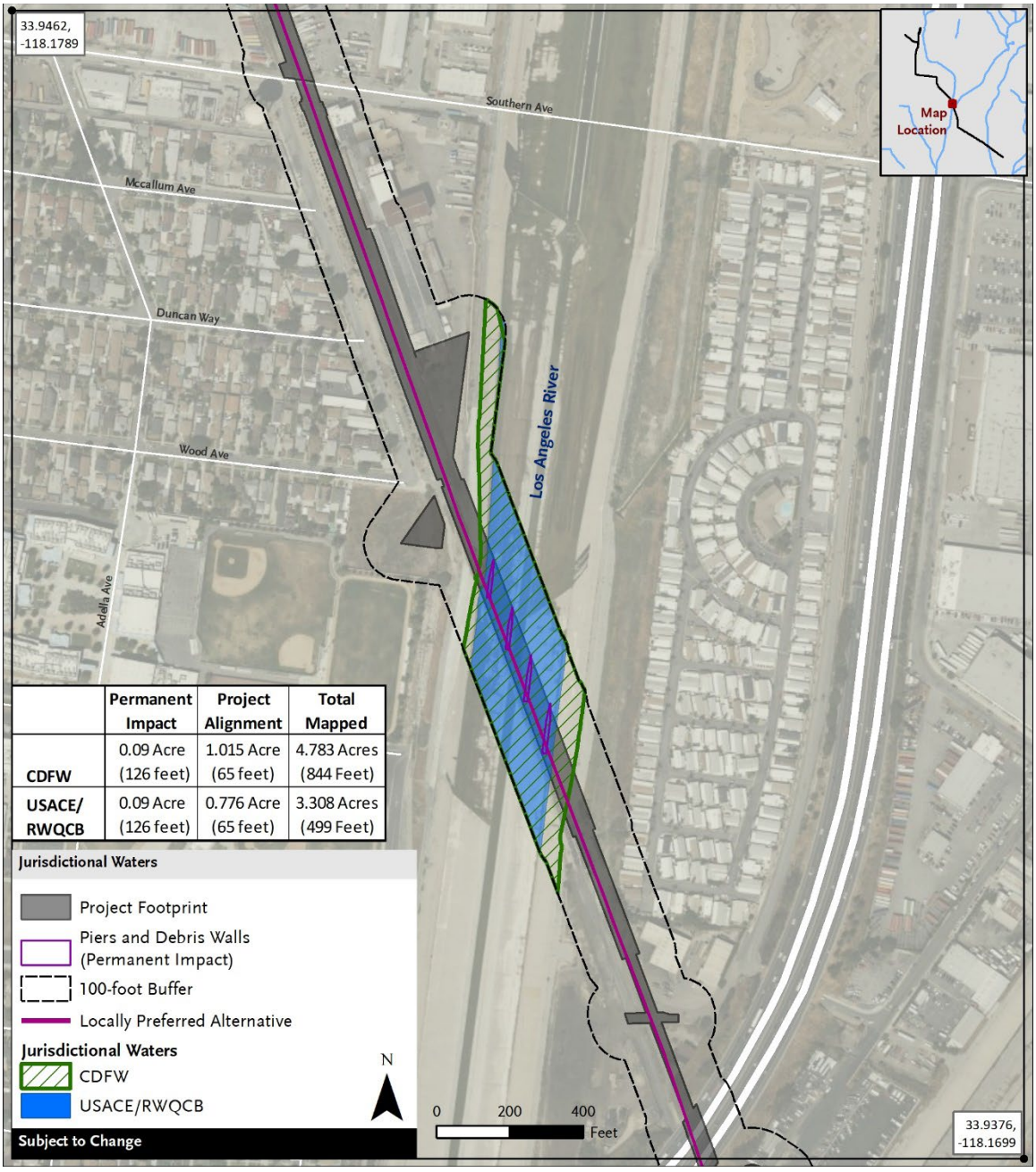
The Affected Area is located within the western edge of the Los Angeles River Watershed. The watershed encompasses and is shaped by the path of the Los Angeles River, which flows from its headwaters in the Simi Hills and Santa Susana Mountains eastward to the northern corner of Griffith Park. From Griffith Park, the channel continues southward through the Glendale Narrows before it flows across the coastal plain and into the Pacific Ocean via San Pedro Bay near Long Beach. Based on the findings of the jurisdictional delineation conducted for this study, the Los Angeles, Rio Hondo Channel, and San Gabriel Rivers are subject to USACE, RWQCB, and CDFW jurisdiction. All three drainages contain an OHWM and bed, bank, and channel features, although riparian vegetation is absent. No wetlands are present due to the absence of soils and the extremely limited distribution of vegetation. These drainages are classified as USACE non-wetland waters. No isolated waters of the State are present.

As previously discussed in Section 4.1.2.2, the LPA crosses aboveground drainages in three locations (Figure 4-1):

- Drainage Crossing 1: Located at the Los Angeles River between the southern end of Wood Avenue and I-710 in the City of Lynwood. Within the Affected Area, the Los Angeles River contains 3.308 acres of waters subject to the jurisdiction of the USACE and RWQCB (Figure 4-2). Since the Los Angeles River is a Traditional Navigable Water and a tributary to the Pacific Ocean, it is subject to the jurisdiction of USACE under Section 404 of the CWA. As a USACE-constructed flood-control channel, it is also subject to the jurisdiction of USACE under Section 408 of the RHA. Within the Affected Area, the Los Angeles River contains 4.783 acres of non-riparian streambed subject to the jurisdiction of CDFW. This represents the furthest extent of jurisdictional area within the river. The river's measured bank to bank width ranged from 320 feet to 345 feet.
- Drainage Crossing 2: The LPA will cross the Rio Hondo Channel, a tributary to the Los Angeles River, between I-710 and Ruchti Road in the City of Lynwood. Within the Affected Area, the Rio Hondo Channel contains 1.63 acres of waters subject to the jurisdiction of the USACE and RWQCB (Figure 4-3). Since the Rio Hondo Channel regularly contributes surface flow to the Los Angeles River, a Traditional Navigable Water and a tributary to the Pacific Ocean, it is subject to the jurisdiction of USACE under Section 404 of the CWA. As a USACE-constructed flood-control channel, it is also subject to the jurisdiction of USACE under Section 408 of the RHA.

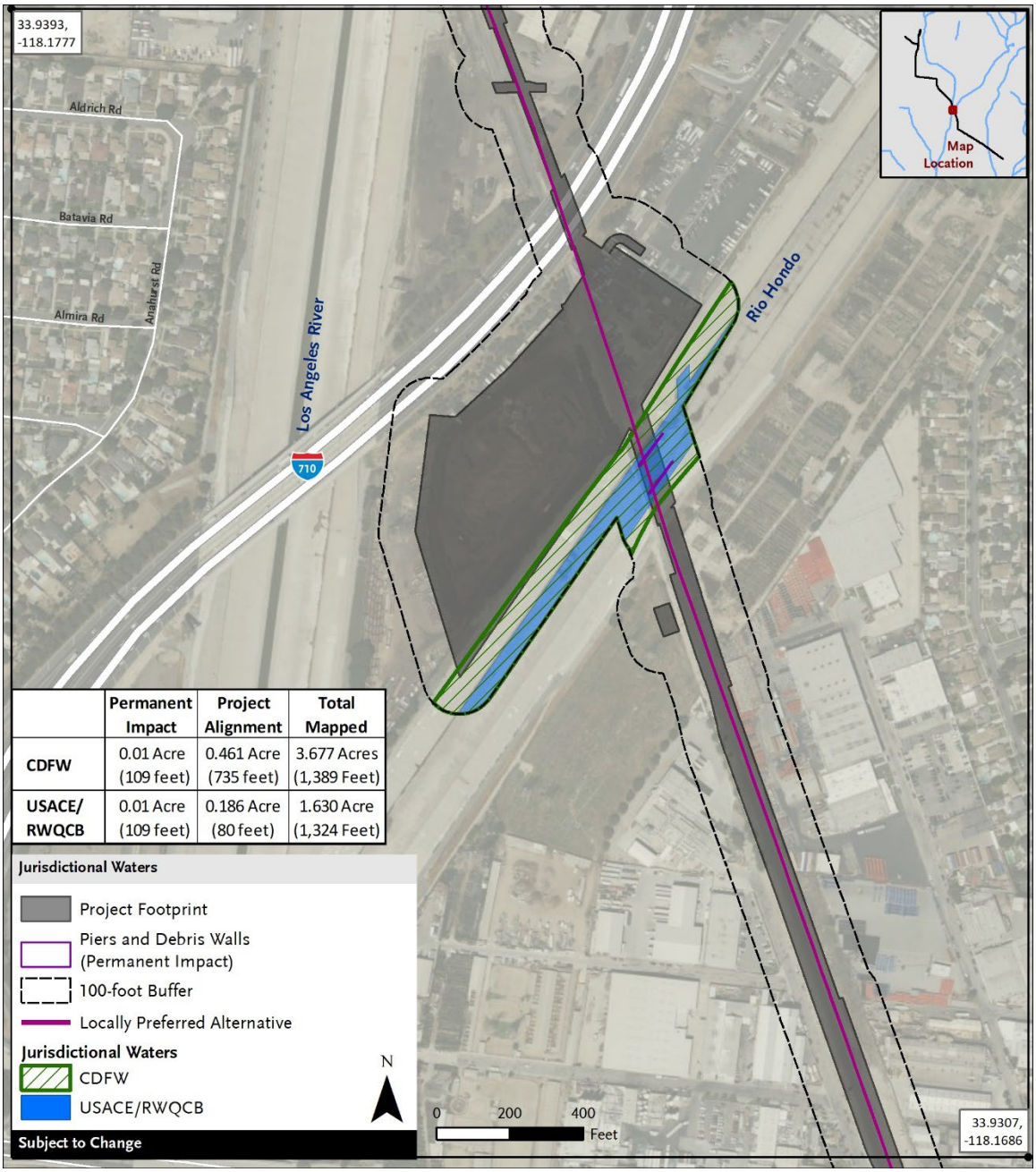
- Drainage Crossing 3: The LPA will cross the San Gabriel River at SR-91 in the City of Bellflower. Within the Affected Area, the San Gabriel River contains 0.856 acre of waters subject to the jurisdiction of the USACE and RWQCB (Figure 4-4). Since the San Gabriel River regularly contributes surface flow to the Pacific Ocean in a typical year, it is subject to the jurisdiction of USACE under Section 404 of the CWA. As a USACE-constructed flood-control channel, it is also subject to the jurisdiction of USACE under Section 408 of the RHA.

Figure 4-2. Drainage Crossing 1 Jurisdictional Delineation



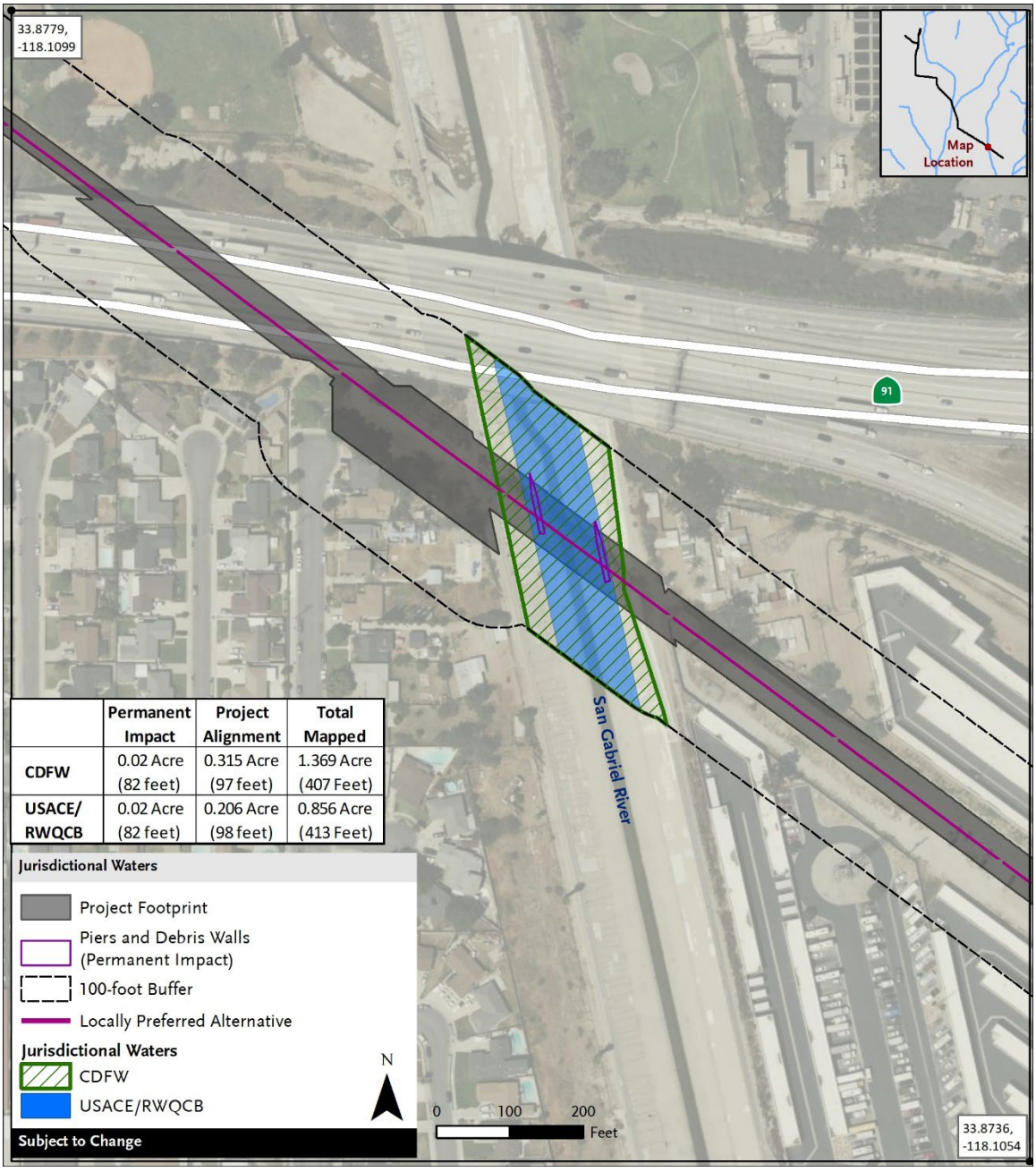
Source: Prepared for Metro in 2022

Figure 4-3. Drainage Crossing 2 Jurisdictional Delineation



Source: Prepared for Metro in 2022

Figure 4-4. Drainage Crossing 3 Jurisdictional Delineation



Source: Prepared for Metro in 2022

In a letter dated February 9, 2021, the USACE responded to the preliminary jurisdictional delineation request submitted for this study on November 5, 2020. Consistent with that request and the findings presented herein, the USACE preliminary determined that waters of the U.S. may be present in the three locations in the Affected Area (at the Los Angeles River, Rio Hondo Channel, and San Gabriel River crossings).

4.1.3.4 Wildlife Movements

The Project is located within developed urban areas and CDFW does not include any mapped California Essential Habitat Connectivity areas within the Affected Area, nor does it contain any Missing Linkages as identified by the South Coast Wildlands Network. However, the drainage channels described above may facilitate some wildlife movement for urban-tolerant mammals, such as coyotes and raccoons, and mature ornamental shrubs and trees may serve as habitat linkages for urban-tolerant bird species.

4.1.3.5 Resources Protected by Local Policies and Ordinances

As previously described above in Section 3.4, numerous street trees protected by the Cities of Los Angeles, Huntington Park, Bell, South Gate, Downey, Bellflower, and Cerritos are present within the Affected Area. Approximately 85 street trees may be impacted.

4.1.3.6 Conservation Plans

The Affected Area is not identified as a Biological Resource Area or Significant Ecological Area by the City or County of Los Angeles, or any other jurisdictions traversed by the Affected Area. In addition, the Affected Area is highly urbanized and not within or proximate to any native wildlife corridors, native wildlife nursery sites, critical habitat, land trust, habitat conservation plan, or any other regional planning areas, as identified by the City of Los Angeles or any other local, regional, state, or federal agency. Therefore, conservation plans are not addressed further within this analysis.

5 ENVIRONMENTAL IMPACTS/ENVIRONMENTAL CONSEQUENCES

5.1 Operation Impacts

5.1.1 No Build Alternative

The No Build Alternative includes projects identified in the SCAG *2016 RTP/SCS* (SCAG 2016), Metro's *2009 LRTP*, and Measure M. Under the No Build Alternative, the LPA would not be implemented. However, several infrastructure and transportation-related projects located within the Affected Area as described in Table 2.1 would be implemented and built. SCAG *2016 RTP/SCS*, Metro's *2009 LRTP*, and Measure M projects identified in the vicinity of the project alignment include the Metro East-West Line/Regional Connector/Eastside Phase 2, California High-Speed Rail, Metro North-South Line/Regional Connector, improvements to the Metro bus system and local municipality bus systems, I-710 South Corridor Project, and I-105 Express Lane. Project-related transit-oriented developments (TODs) are not included in the No Build Alternative because the future planning of TODs surrounding the Project's station areas cannot occur without implementation of the Project.

The projects included in the No Build Alternative would change the regional transportation system and likely reduce regional vehicle miles traveled. This would result in fewer automobiles on the regional roadway network and less mobile noise. Projects in the No Build Alternative would undergo environmental analyses to determine if the projects would result in physical impacts to jurisdictional resources or protected trees. It is anticipated that mitigation would be identified and implemented as needed. Therefore, no adverse impacts related to biological resources would occur under the No Build Alternative.

5.1.2 Locally Preferred Alternative

Project operation activities will have the potential to result in direct and/or indirect adverse impacts to nesting birds, roosting and/or foraging bats, jurisdictional resources, and protected trees. Those potential impacts are outlined in the following sections.

5.1.2.1 Special-Status Species

The Project will be located in a heavily developed/disturbed area and does not support any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS[5]. Therefore, the operation of the Project will not result in adverse direct or indirect impacts on any candidate, sensitive, or special-status plant species identified in such plans, policies, or regulations.

[5] In a meeting held on September 12, 2018, with representatives from the USFWS, Metro, and FTA and in follow-up email correspondence, a representative from the USFWS expressed no concerns with the project alignment in regard to the special status species list.

Certain special-status wildlife species may, however, be present. The western mastiff bat and pallid bat, CDFW Species of Special Concern, and silver-haired bat, a special-status G5/S3S4 species, may utilize buildings or bridges within the Affected Area as roosting habitat, specifically within existing bridges crossing the Los Angeles River, Rio Hondo Channel, and San Gabriel River. Big free-tailed bat, a CDFW SSC, may utilize the Affected Area as foraging habitat. As described in Section 5.2.2.1 and Section 6.2.2, a Bat Habitat Suitability Assessment (as described in Mitigation Measure BIO-1) will be conducted by a qualified bat biologist during the bat maternity season (June 1-October 31) within the Affected Area to determine the potential for impacts resulting from project construction. If active maternity roosts would be impacted by project construction, a CDFW-approved Bat Relocation Plan will be prepared, which will include an evaluation of the availability of nearby alternative bat maternity colony sites. If alternative roosting habitat is not available, substitute maternity roost sites will be installed prior to relocation efforts. Alternate roost sites will remain in place following project construction to provide long-term substitute roosting habitat. Because long-term substitute roosting habitat will be provided prior to construction, operation of the Project will not present a new or unusual use within the Affected Area near occupied roosting habitat, and, therefore, project operation will not result in adverse effects to special-status bats.

Additionally, nesting bird habitat is present throughout the Affected Area, including within proposed station areas, the MSF site, TPSS sites, and parking facilities. Nesting bird species are protected by the MBTA and the California Fish and Game Code. Increased noise or increased human presence in the Affected Area may result in adverse effects to special-status wildlife. However, the Project is located in a heavily developed/disturbed area and, as such, operation of the Project is not expected to present a new or unusual use within the area and, therefore, will be unlikely to affect wildlife species should they be present.

5.1.2.2 Jurisdictional Resources

Based on the jurisdictional delineation conducted for this study, three crossings of jurisdictional water resources, the Los Angeles River, Rio Hondo Channel, and San Gabriel River, occur within the Affected Area. None of these crossings contain intact riverine or wetland vegetation. The Project will span these resources, and operation of the Project will not impact these jurisdictional water resources because there will be no disturbance to the bed, banks, and any associated vegetation, or discharge of fill material into the features.

5.1.2.3 Invasive Species

Use of invasive plant species within landscaped areas of the LPA could potentially result in the spread of invasive species. Invasive species will not be used in landscape plans prepared for the Project; accordingly, operation of the Project will not result in the spread of invasive species.

5.1.2.4 Protected Trees

Any protected trees within the Affected Area will not be affected by operation of the Project because project operation will not require removal or otherwise directly impact protected trees.

5.1.3 Design Option: Close 186th Street

The design option consists of closing the grade crossing at 186th Street and redesigning the street into a cul-de-sac on each side of the LRT alignment. Additionally, 187th Street would be opened as a grade crossing and the Corby Avenue connection to 187th would be changed to a cul-de-sac. 186th and 187th Streets are roughly 1,000 feet apart and are substantially similar to the rest of the Affected Area for biological resources in regard to existing biological conditions (i.e. urban, disturbed). Therefore, the impact conclusions presented above for the LPA without the design option are applicable to the LPA with the design option.

5.1.4 Maintenance and Storage Facility

The site for the MSF is substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, the impact conclusions presented above for the LPA are applicable to the MSF site.

5.1.5 United States Army Corps of Engineers Facilities

The LPA will cross USACE facilities within the Los Angeles River, Rio Hondo Channel, and San Gabriel River. The LPA will span these resources, and operation of the LPA will not impact these facilities because there will be no disturbance to the bed, banks, and any associated vegetation, or discharge of fill material into the features.

5.1.6 California Department of Transportation Facilities

The LPA will transect Caltrans facilities at I-710, I-105, SR-91, and I-605. The Caltrans facilities are substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, the impact conclusions presented above for the LPA are applicable to Caltrans facilities.

5.2 Construction Impacts

This section discusses the possible effects to biological resources that may occur from construction of the Project.

5.2.1 No Build Alternative

The No Build Alternative includes projects identified in the SCAG *2016 RTP/SCS* (SCAG 2016), Metro's *2009 LRTP*, and Measure M. Under the No Build Alternative, the LPA would not be developed. However, several infrastructure and transportation-related projects located within the Affected Area as described in Table 2.1 would be implemented and built. SCAG *2016 RTP/SCS*, Metro's *2009 LRTP*, and Measure M projects identified in the vicinity of the project alignment include the Metro East-West Line/Regional Connector/Eastside Phase 2, California High-Speed Rail, Metro North-South Line/Regional Connector, improvements to the Metro bus system and local municipality bus systems, I-710 South Corridor Project, and I-105 Express Lane. Project-related TODs are not included in the No Build Alternative because the future planning of TODs surrounding the Project's station areas cannot occur without implementation of the Project.

Construction of projects included in the No Build Alternative could affect biological resources, including street trees. It is anticipated mitigation would be identified and implemented as feasible. Under the No Build Alternative, no changes related to the LPA and no project-related impacts to biological resources would occur. Therefore, the No Build

Alternative would not cause adverse effects related to biological resources during construction.

5.2.2 Locally Preferred Alternative

Project construction activities will have the potential to result in direct and/or indirect adverse impacts to nesting birds, roosting and/or foraging bats, jurisdictional resources, invasive species, and protected trees. Those potential impacts are outlined in the following sections.

5.2.2.1 Special-Status Species

Although unlikely, roosting bats may be present within the Affected Area for bio during construction. Nesting birds may also be present. If initial ground disturbance and vegetation/tree trimming or removal is required during the nesting bird season (February 1 to May 31), the Project may adversely impact nesting birds through increased injury or mortality or disruption of normal adult behaviors resulting in the abandonment or harm to eggs and nestlings. Construction-related noise and dust could also result in an adverse indirect impact to nesting birds. Likewise, if initial ground disturbance takes place during bat maternity season (June 1-October 31), the Project may adversely impact maternal roosting bats and their young by increasing the potential for injury or mortality through disruption of normal foraging, flying, or roosting behaviors. Mitigation Measures BIO-1 and BIO-2, described in Section 6.2, will be implemented to avoid or minimize adverse impacts to bats and nesting birds during construction. After implementation of these mitigation measures, no adverse effects to special-status species are expected to occur.

5.2.2.2 Jurisdictional Resources

Engineering plans prepared for the Final EIS/EIR indicate that permanent piers and debris walls will be constructed within the jurisdictional limits of the Los Angeles River, Rio Hondo Channel, and San Gabriel River. The Project does not propose to alter any embankments or the existing contours of the jurisdictional resources. The jurisdictional delineation conducted for the Project mapped the location and extent of jurisdictional water resources potentially affected by the Project. Dredge materials will include excavated materials resulting from the construction of in-channel bridge piers and columns. Fill materials will include temporary construction equipment and materials brought into the channel as well as permanent structures constructed by the LPA, such as in-channel bridge piers and columns.

A conservative estimate of the approximate acres of temporary impacts include:

- 1.22 acres within the Los Angeles River
- 0.46 acre within the Rio Hondo Channel
- 0.36 acre within the San Gabriel River

A conservative estimate of the approximate acres of permanent impacts include:

- 0.09 acre within the Los Angeles River
- 0.01 acre within the Rio Hondo Channel
- 0.02 acre within the San Gabriel River

Construction of these structures will adhere to the requirements of the USACE under Section 404 of the CWA and Section 408 of the Rivers and Harbors Act, the RWQCB under

Section 401 of the CWA, and CDFW pursuant to Section 1600 et. seq. of the California Fish and Game Code. These jurisdictional water resources will be confirmed by state and federal authorities at the time that permits are requested. Mitigation Measure BIO-3 (described in Section 6.2) will be implemented to avoid and minimize adverse impacts to jurisdictional resources to the extent practicable. With implementation of mitigation, impacts to jurisdictional water resources will not be adverse.

5.2.2.3 Invasive Species

Ground disturbance; removal of existing, invasive non-native plant species; and landscaping with invasive plant species could result in the spread of invasive species into new areas during project construction. Project Measure BIO PM-1 will be implemented to prevent the spread of invasive plant species during construction, and Project Measure BIO PM-2 will preclude the use of invasive plant species in the Project's planting plans (both measures are described in Section 6.1). With implementation of these project measures, no adverse effects related to invasive species are expected to occur.

5.2.2.4 Protected Trees

Impacts to trees that meet the requirements of local policies may require a permit to be obtained prior to encroachment or removal/relocation of protected trees. Relevant tree protection regulations or ordinances of jurisdictions within the Affected Area are provided in detail in Section 3.4 for the Cities of Los Angeles, Huntington Park, Bell, South Gate, Downey, and Cerritos. The unincorporated LA County, Vernon, Cudahy, Paramount, Bellflower, and Artesia do not have specific applicable regulations or ordinances related to protected trees. However, Project Measure BIO PM-3 (LA Metro Tree Policy), described in Section 6.1, will be implemented within the Affected Area for street trees that are not protected by local regulations or ordinances.

City of Los Angeles

Per Section 46 (Protected Tree Regulations) of the LAMC, removal or relocation of street trees and protected native trees regulated by the City of Los Angeles requires a permit to be obtained from the Board of Public Works.

The exact number and species of protected trees potentially impacted within the City of Los Angeles is not known at this time. However, it is assumed that some protected trees will be adversely affected by construction of the Project. The Project will comply with applicable regulations and ordinances as required by the City of Los Angeles to minimize potential impacts. Mitigation Measure BIO-4 (described in Section 6.2) will be implemented prior to the start of construction to aid in the protection of protected trees to the greatest extent and avoid adverse impacts.

City of Huntington Park

Section 7-5.204 of the Huntington Park Municipal Code states that prior to plant removal, including street trees, a permit must be obtained. Furthermore, for parkway trees, a direct request must be filed with the city's Director.

The exact number and species of protected trees potentially impacted within the City of Huntington Park is not known at this time. However, it is assumed that some protected trees will be adversely affected by construction of the Project. The Project will comply with applicable regulations and ordinances as required by the City of Huntington Park to

minimize potential impacts. Mitigation Measure BIO-4 will be implemented prior to the start of construction to aid in the protection of protected trees to the greatest extent and avoid adverse impacts.

City of Bell

Section 12.24.060 of the Bell Municipal Code states that approval from the city council is required prior to tree removal.

The exact number and species of protected trees potentially impacted within the City of Bell is not known at this time. However, it is assumed that some protected trees will be adversely affected by construction of the Project. The Project will comply with applicable regulations and ordinances as required by the City of Bell to minimize potential impacts. Mitigation Measure BIO-4 will be implemented prior to the start of construction to aid in the protection of protected trees to the greatest extent and avoid adverse impacts.

City of South Gate

Section 5.33 of the South Gate Municipal Code states that a permit must be obtained prior to the planting, removal, relocation, or damage to public trees.

The exact number and species of protected trees potentially impacted within the City of South Gate is not known at this time. However, it is assumed that some protected trees will be adversely affected by construction of the Project. The Project will comply with applicable regulations and ordinances as required by the City of South Gate to minimize potential impacts. Mitigation Measure BIO-4 will be implemented prior to the start of construction to aid in the protection of protected trees to the greatest extent and avoid adverse impacts.

City of Downey

Section 7605 of the Downey Municipal Code, states that street tree removal would require a replacement if deemed appropriate and in accordance with the official Tree Species List and Master Street Tree Plan. Further, no public street tree will be removed/planted without obtaining a permit.

The exact number and species of protected trees potentially impacted within the City of Downey is not known at this time. However, it is assumed that some protected trees will be adversely affected by construction of the Project. The Project will comply with applicable regulations and ordinances as required by the City of Downey to minimize potential impacts. Mitigation Measure BIO-4 will be implemented prior to the start of construction to aid in the protection of protected trees to the greatest extent and avoid adverse impacts.

City of Cerritos

Section 9.75.205 of Cerritos Municipal Code states that “No person shall plant, remove, cut, prune, root prune, apply pesticides or otherwise disturb any city tree.” There are no provisions for replacements of impacted trees.

The exact number and species of protected trees potentially impacted within the City of Cerritos is not known at this time. However, it is assumed that some protected trees will be adversely affected by construction of the Project. The Project will comply with applicable regulations and ordinances as required by the City of Cerritos to minimize potential impacts.

Mitigation Measure BIO-4 will be implemented prior to the start of construction to aid in the protection of protected trees to the greatest extent and avoid adverse impacts.

5.2.3 Design Option: Close 186th Street

186th and 187th Streets are roughly 1,000 feet apart and are substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e. urban, disturbed). Therefore, the impact conclusions presented above for the LPA without the design option are applicable to the LPA with the design option.

5.2.4 Maintenance and Storage Facility

The MSF site is substantially similar to the remainder of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, the impact conclusions presented above for the LPA are applicable to construction of the MSF.

5.2.5 United States Army Corps of Engineers Facilities

The LPA will cross USACE facilities within the Los Angeles, Rio Hondo Channel, and San Gabriel Rivers. As discussed in Section 5.2.2 for the LPA, dredge and fill within the Los Angeles River, Rio Hondo Channel, and San Gabriel River crossings will result in approximately 1.31 acre, 0.47 acre, and 0.38 acre of impacts, respectively. Construction of these structures will adhere to the requirements of the USACE under Section 404 of the CWA and Section 408 of the Rivers and Harbors Act. Mitigation Measure BIO-3 (described in Section 6.2) will be implemented to avoid and minimize adverse impacts to USACE facilities to the extent practicable. With implementation of mitigation, impacts to USACE facilities will not be adverse.

5.2.6 California Department of Transportation Facilities

The LPA will transect Caltrans facilities at I-710, I-105, SR-91, and I-605. The Caltrans facilities are substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, the impact conclusions presented above for the LPA are applicable to Caltrans facilities.

6 PROJECT MEASURES AND MITIGATION MEASURES

With implementation of the following project and mitigation measures, impacts will not be adverse under NEPA and will be less than significant under CEQA.

6.1 Project Measures

6.1.1 Operation Project Measures

No project measures are required during operation of the LPA.

6.1.2 Construction Project Measures

BIO PM-1: Invasive Plant Species Best Management Practices

The following are options that Metro may consider to control the spread of invasive plant species during construction:

- Prior to construction, a qualified botanist/biologist will provide invasive plant prevention training and an appropriate identification/instruction guide to staff and contractors. A list of target species will be included, along with measures for early detection and eradication.
- A qualified botanist will monitor the project site immediately prior to and during construction to identify the presence of invasive weeds and recommend measures to avoid their inadvertent spread in association with the Project. Such measures may include inspection and cleaning of construction equipment and use of eradication strategies.
- All disturbed areas that are not converted to hardscape or formally landscaped will be hydro-seeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydro-seeding will occur where no construction activities have occurred prior to winter rains. If invasive species invade these areas prior to hydro-seeding, weed removal will occur in consultation with a qualified botanist/ biologist. Alternatively, in areas not suitable for hydro-seeding, areas that are not hardscaped and are planned for formal landscaping will be mulched to reduce potential for invasive species to colonize. Mulch will be at least four inches thick and will be weed free.

BIO PM-2: Prohibition of Invasive Plant Species in Landscape Plans. The use of species listed in the California Invasive Plant Council Invasive Plant Inventory in project landscape planting plans will be prohibited.

BIO PM-3: LA Metro Tree Policy. The Project will adhere to the LA Metro Tree Policy, adopted on October 27, 2022. The policy requires the preparation of a tree protection plan identifying tree protection zones for trees designated for retention. Where tree removal is required, a plan will be prepared that either replaces removed trees at a ratio of 2:1 or replaces in-kind with trees that are a minimum size of 36-inch standard box (i.e., young trees with a large root ball). The policy also requires engagement with representatives of local jurisdictions and community stakeholders prior to selecting the appropriate species and location for replacement trees.

6.2 Mitigation Measures

6.2.1 Operation Mitigation Measures

No mitigation measures are required during operation of the LPA.

6.2.2 Construction Mitigation Measures

BIO-1: Bats. A Bat Habitat Suitability Assessment will be conducted by a qualified bat biologist prior to initiation of construction near areas with the potential to provide bat habitat to determine the potential presence and document suitable locations for bat species.

If project construction occurs within the vicinity of suitable habitat for western mastiff bat, pallid bat, silver-haired bat, and big free-tailed bat, a qualified biologist will complete a maternity colony survey during the bat maternity season (June 1 through October 31) to determine the presence or absence of any maternity roosting of bats. If no active roosts are found, then no further action will be required. Mitigation Measures BIO-1a, -1b, and -1c will be implemented, as appropriate if active roosts are found.

a. If bats are present, project activities disruptive to the roost within 100 feet of an active maternity roost will be delayed, if feasible, until after the maternity season, or until a qualified biologist determines that the roosting site is no longer in use, or as otherwise determined in coordination with the applicable resource agency. This buffer may be reduced at the discretion of a qualified monitoring biologist. A criterion to be used to evaluate the appropriate maternity roosting site buffer includes existing levels of ambient disturbance.

b. If active maternity roosts or hibernacula are found within 100 feet of project construction, the qualified bat biologist will survey (through the use of radio telemetry or other California Department of Fish and Wildlife (CDFW)-approved methods) for nearby alternative maternity colony sites. If the biologist determines in consultation with the CDFW that there are alternative roost sites used by the maternity colony and young are not present, then a Bat Relocation Plan will be prepared by the qualified bat biologist for review and approval by CDFW. Eviction procedures as outlined in a CDFW-approved Bat Relocation Plan will apply. However, if there are no alternative roost sites that can be used by the maternity colony nearby, Mitigation Measure BIO-1c (providing substitute maternity roost nearby) will be required.

c. If a maternity roost would be affected by the Project, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony will be provided in close proximity to the affected maternity roost no less than three months prior to the eviction of the colony. Alternative roost sites will be constructed in accordance with the specific bat's requirements as detailed in the CDFW-approved Bat Relocation Plan. Alternative roost sites will be of comparable size and proximal in location to the affected colony. Alternate roost sites will remain in place following project construction to provide long-term substitute roosting habitat.

BIO-2: Nesting Birds. If project construction occurs within the peak bird breeding season (February 1 through May 31 for raptors, and March 1 through August 31 for passerines) within suitable nesting habitat (e.g., vegetation, bridges, or other structures), a nesting bird and/or raptor preconstruction survey will be conducted by a qualified biologist within the

disturbance footprint plus a 300-foot buffer. The survey will occur no more than three days prior to initiation of ground disturbance and/or vegetation removal. If project construction occurs in an area over multiple nesting seasons, a subsequent preconstruction nesting bird and raptor survey may be required prior to the initiation of construction each season.

Preconstruction nesting bird and raptor surveys will be conducted during the time of day when birds are active and will be of sufficient duration to reliably conclude the presence or absence of nesting birds and/or raptors on-site and within the designated vicinity. The nesting bird and raptor survey results will be submitted to Metro prior to ground and/or vegetation disturbance activities.

If active nests are found, their locations will be flagged. An appropriate avoidance buffer, depending upon the species and the proposed work activity, will be determined by a qualified biologist in consultation with the appropriate regulatory agency. The buffer will be delineated with bright orange construction fencing or other suitable flagging. Active nests will be monitored at a minimum of once per week until it has been determined that the nest is no longer being used by either the young or adults. If project activities must occur within the buffer, they will be conducted at the discretion of the qualified biologist. Inactive nests that have been confirmed by a qualified biologist could be removed based on their recommendations.

BIO-3: Jurisdictional Resources. Impacts associated with permanently disturbed areas within regulated waters will be mitigated in-kind at a minimum ratio of 1:1.

Mitigation can be completed by providing adequate funding to a third-party organization, conservation bank, or in-lieu fee program for the in-kind creation or restoration. If mitigation is implemented offsite, mitigation lands should be located in the vicinity of the Affected Area or within the Los Angeles River Watershed. The Affected Area falls within the service area for the Land Veritas Soquel Canyon mitigation bank, which is approved to provide mitigation for permitted impacts under U.S. Army Corps of Engineers 404 permits, Los Angeles Regional Water Quality Control Board 401 Certifications, and California Department of Fish and Wildlife 1600 agreements.

Note: the final mitigation ratios required by regulatory agencies during the permitting process may differ from those identified above.

BIO-4: Protected Trees. Prior to removal of any protected trees (as specified in applicable local ordinances), an Arborist Study will be completed to plot the location of each protected tree that may be encroached upon (i.e., construction activities within the tree protection zone, as measured 5 feet from the canopy dripline), and identify each protected tree proposed to be removed or retained and impacted. The Arborist Study will be prepared by a Certified Consulting Arborist in compliance with local ordinance guidelines and will be prepared in accordance with the reporting requirements of the applicable local jurisdiction. In addition, as required by applicable local jurisdiction ordinances, a tree protection plan will be prepared that will, at a minimum, include: site plans, protective tree barriers, the designated tree protection zone (identifying an area sufficiently large enough to protect the tree and its roots from disturbance), activities prohibited or permitted within the tree protection zone, and encroachment boundaries. The Arborist Study and tree protection plan will be submitted to the appropriate departments of local jurisdictions with applicable tree ordinances for approval prior to the start of any tree-disturbing construction activities.

7 CEQA DETERMINATION

7.1 Operation

7.1.1 Threshold BIO-1: Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

7.1.1.1 No Project Alternative

Under the No Project Alternative, the Project would not be constructed; no new infrastructure would be built within the Affected Area as a result of the Project. The existing freight tracks within the rail ROWs and the environmental setting would remain in current conditions. Therefore, under the No Project Alternative, there would be no direct or indirect impacts to special-status species as a result of project operation.

7.1.1.2 Locally Preferred Alternative

The Project will be located in a heavily developed/disturbed area, and as such, operation of the Project is not expected to present a new or unusual use within the area. As a result, the Project will be unlikely to affect wildlife species should they be present. Therefore, direct and indirect impacts to special-status species as a result of project operation will be less than significant, and mitigation will not be required.

Mitigation Measures

Operation of the Project will not result in impacts. Therefore, mitigation will not be required.

Impacts remaining After Mitigation

No impacts will occur.

7.1.1.3 Design Option: Close 186th Street

186th and 187th Streets are roughly 1,000 feet apart and are substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e. urban, disturbed). Therefore, the impact conclusions presented for the LPA without the design option are applicable to the LPA with the design option.

Mitigation Measures

Operation of the design option would not result in impacts. Therefore, mitigation would not be required.

Impacts remaining After Mitigation

No impacts will occur.

7.1.1.4 Maintenance and Storage Facility

The MSF site is substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, direct and indirect impacts to special-

status species as a result of the MSF will be less than significant, and mitigation will not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.2 Threshold BIO-2: Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

7.1.2.1 No Project Alternatives

Under the No Project Alternative, the environmental setting would remain in current conditions. Therefore, under the No Project Alternative, there would be no impact on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS, and no impacts would occur as a result of project operation.

7.1.2.2 Locally Preferred Alternative

The Project will be located in a highly developed/urban area, and no quality habitat that supports native riparian plant or wildlife species is present. Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in CNDDB. Similar to special-status plant and wildlife species, vegetation alliances are ranked 1 through 5 based on NatureServe's (2010) methodology, with those alliances ranked with a scale of global (G) or state/providence (S) as 1 through 3 considered sensitive. The vegetation that is present throughout the Affected Area is ruderal or ornamental in nature. Therefore, impacts to sensitive natural communities will not occur as a result of project operation. There will be no impact, and mitigation will not be required.

Mitigation Measures

Operation of the Project will not result in impacts. Therefore, mitigation is not required.

Impacts remaining After Mitigation

No impacts will occur.

7.1.2.3 Design Option: Close 186th Street

186th and 187th Streets are substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e. urban, disturbed). Therefore, direct and indirect impacts to riparian habitat or sensitive natural communities as a result of the LPA with the design option would not occur, and mitigation would not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.2.4 Maintenance and Storage Facility

The MSF site is substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, direct and indirect impacts to riparian habitat or sensitive natural communities as a result of MSF operation will not occur, and mitigation will not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.3 Threshold BIO-3: Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means?

7.1.3.1 No Project Alternative

Under the No Project Alternative, the Project would not be constructed, and the environmental setting would remain in current conditions. Therefore, under the No Project Alternative, there would be no impact on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means, and no impacts would occur as a result of project operation.

7.1.3.2 Locally Preferred Alternative

Operation of the Project will not result in impacts to state or federally protected wetlands. Therefore, no impacts will occur, and mitigation will not be required.

Mitigation Measure

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.3.3 Design Option: Close 186th Street

The design option does not contain state or federally protected wetlands. Therefore, impacts to state or federally protected wetlands would not occur as a result of the LPA with the design option, and no mitigation would be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.3.4 Maintenance and Storage Facility

The MSF site does not contain state or federally protected wetlands. Therefore, impacts to state or federally protected wetlands will not occur as a result of the MSF.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.4 Threshold BIO-4: Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

7.1.4.1 No Project Alternative

The Project would not be constructed under the No Project Alternative; the environmental setting would remain in current conditions. Under the No Project Alternative, there would be no interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites and no impacts would occur as a result of project operation.

7.1.4.2 Locally Preferred Alternative

Operation of the Project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites, as the Project will be located within developed, urban areas. As a result, it is unlikely that wildlife utilizes the immediate area for regional movement. Furthermore, CDFW does not identify any mapped California Essential Habitat Connectivity areas within the Affected Area, nor does it contain any Missing Linkages, as identified by the South Coast Wildlands Network. Therefore, no impacts will occur, and mitigation will not be required.

Mitigation Measure

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.4.3 Design Option: Close 186th Street

186th and 187th Streets are substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e. urban, disturbed). Therefore, the LPA with the design option would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites, and no impacts would occur as a result of operation of the LPA with the design option.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.4.4 Maintenance and Storage Facility

The MSF site is substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, MSF operation will not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites, and no impacts will occur as a result of MSF operation.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.5 Threshold BIO-5: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

7.1.5.1 No Project Alternative

The Project would not be constructed under the No Project Alternative and the environmental setting would remain in current conditions. Under the No Project Alternative, there would not be conflicts with any local policies or ordinances protecting biological resources and no impacts would occur.

7.1.5.2 Locally Preferred Alternative

Operation of the Project will not conflict with any local policies or ordinances protecting biological resources. Therefore, no impacts will occur, and mitigation will not be required.

Mitigation Measure

Operation of the Project will not result in impacts. Therefore, mitigation is not required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.5.3 Design Option: Close 186th Street

Consistent with the LPA without the design option, operation of the LPA with the design option would not conflict with any local policies or ordinances protecting biological resources. Therefore, no impacts would occur, and mitigation would not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.5.4 Maintenance and Storage Facility

Operation of the MSF will not conflict with any local policies or ordinances protecting biological resources. Therefore, no impacts will occur, and mitigation will not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.6 Threshold BIO-6: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

7.1.6.1 No Project Alternative

Under the No Project Alternative, the Project would not be constructed, and the environmental setting would remain in current conditions. Under the No Project Alternative, there would not be conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan and no impacts would occur.

7.1.6.2 Locally Preferred Alternative

Operation of the Project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Therefore, no impacts will occur, and mitigation will not be required.

Mitigation Measure

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.6.3 Design Option: Close 186th Street

Consistent with the LPA without the design option, operation of the LPA with the design option would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Therefore, no impacts would occur, and mitigation would not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.1.6.4 Maintenance and Storage Facility

Operation of the MSF will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Therefore, no impacts will occur, and mitigation will not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2 Construction

7.2.1 Threshold BIO-CON-1: Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

7.2.1.1 No Project Alternative

Under the No Project Alternative, the Project would not be constructed; no new infrastructure would be built within the Affected Area as a result of the Project. The existing freight tracks within the rail ROWs and the environmental setting would remain in current conditions. Therefore, under the No Project Alternative, there would be no direct or indirect impacts to special-status species as a result of project construction.

7.2.1.2 Locally Preferred Alternative

As discussed in Section 5.2.2.1, limited low-quality roosting habitat is available for western mastiff bat and pallid bat (CDFW SSC), as well as silver-haired bat, a special-status G5/S3S4 species, primarily in existing bridges crossing the Los Angeles River, Rio Hondo Channel, and San Gabriel River. Suitable foraging habitat is present for big free-tailed bat, a CDFW SSC. Impacts to roosting bats may occur during project construction if the species is roosting within buildings or bridges. Impacts to bats will be reduced with implementation of Mitigation Measure BIO-1 requiring the preparation of a Bat Habitat Suitability Assessment and preconstruction bat survey, and potential delay of construction activities if active maternity roosts are present. In addition, habitat for protected nesting birds is present within and adjacent to the Affected Area. With implementation of Mitigation Measure BIO-2 requiring the avoidance of the bird nesting season or the implementation of a preconstruction nesting bird survey, impacts related to nesting birds will be less than significant.

Mitigation Measures

Implementation of Mitigation Measures BIO-1 and BIO-2 described in Section 6.2 will be required to reduce impacts to a less than significant level.

Impacts Remaining after Mitigation

With implementation of Mitigation Measures BIO-1 and BIO-2, impacts to sensitive special-status species resulting from project construction will be avoided, and impacts will be less than significant.

7.2.1.3 Design Option: Close 186th Street

186th and 187th Streets are roughly 1,000 feet apart and are substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e. urban, disturbed). Therefore, the impact conclusions for the LPA without the design option are applicable to the LPA with the design option. With implementation of Mitigation Measure BIO-2, impacts related to nesting birds would be less than significant.

Mitigation Measures

Mitigation Measure BIO-2.

Impacts remaining After Mitigation

Less than significant impact.

7.2.1.4 Maintenance and Storage Facility

The MSF site is substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, the impact conclusions for the LPA are applicable to the MSF. With implementation of Mitigation Measure BIO-2, impacts related to nesting birds will be less than significant.

Mitigation Measures

Mitigation Measure BIO-2.

Impacts remaining After Mitigation

Less than significant impact.

7.2.2 Threshold BIO-CON-2: Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

7.2.2.1 No Project Alternative

Under the No Project Alternative, the Project would not be constructed; no new infrastructure would be built within the Affected Area as a result of the Project. The existing freight tracks within the rail ROWs and the environmental setting would remain in current conditions. Therefore, under the No Project Alternative, there would be no direct or indirect impacts to special-status species as a result of project construction.

7.2.2.2 Locally Preferred Alternative

The Project will be located in a highly developed/urban area and no habitat of quality to support native riparian plant/wildlife species is present. Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their

occurrences in CNDDB. Similar to special-status plant and wildlife species, vegetation alliances are ranked 1 through 5 based on NatureServe's (2010) methodology, with those alliances ranked with a scale of global (G) or state/providence (S) as 1 through 3 considered sensitive. The vegetation that is present throughout the Affected Area is ruderal or ornamental in nature. Therefore, impacts to sensitive natural communities will not occur.

Mitigation Measures

Construction of the Project will not result in impacts. Therefore, mitigation is not required.

Impacts remaining After Mitigation

No impacts will occur.

7.2.2.3 Design Option: Close 186th Street

186th and 187th Streets are substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, direct and indirect impacts to riparian habitat or sensitive natural communities as a result of construction of the LPA with the design option would not occur, and mitigation would not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.2.4 Maintenance and Storage Facility

The MSF site is substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, impacts to riparian habitat and sensitive natural communities will not occur as a result of the MSF.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.3 Threshold BIO-CON-3: Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means?

7.2.3.1 No Project Alternative

Under the No Project Alternative, the Project would not be constructed, and the environmental setting would remain in current conditions. Therefore, under the No Project Alternative, there would be no impact on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means and no impacts would occur as a result of project construction.

7.2.3.2 Locally Preferred Alternative

State and federally protected wetlands are not present within the Affected Area. Therefore, impacts to protected wetlands as a result of the Project will not occur. Urban channels, including the Los Angeles River, Rio Hondo Channel, and the San Gabriel River, occur within the Affected Area. According to current project design and construction methods, impacts to these jurisdictional water resources will occur. Specifically, the Los Angeles River, Rio Hondo Channel, and San Gabriel River crossings will result in 1.31 acre, 0.47 acre, and 0.38 acre of permanent fill, respectively.

The Project does not propose to alter any embankments or the existing contours of the jurisdictional resources. Impacts within regulated waters may be subject to the jurisdiction of regulatory agencies. This includes the requirements of the USACE under Section 404 of the CWA and Section 408 of the Rivers and Harbors Act, the RWQCB under Section 401 of the CWA, and CDFW pursuant to Section 1600 et. seq. of the California Fish and Game Code. The jurisdictional delineation conducted for this study mapped the extent of regulated waters and potential impacts. However, the location and extent of jurisdictional features will be confirmed by the state and federal authorities at the time that permits are requested. Implementation of Mitigation Measure BIO-3 requiring avoidance, minimization, and compensatory measures will be implemented to minimize and compensate for potential significant impacts to jurisdictional waters. With mitigation, impacts will be less than significant.

Mitigation Measure

Adherence to Mitigation Measure BIO-3 described in Section 6.2 will require avoidance and minimization and compensatory measures to minimize potential impacts to jurisdictional waters.

Impacts Remaining After Mitigation

Implementation of Mitigation Measure BIO-3 will reduce impacts to a less than significant level.

7.2.3.3 Design Option: Close 186th Street

The design option site does not contain state or federally protected wetlands. Therefore, impacts to state or federally protected wetlands specific to the design option would not occur.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.3.4 Maintenance and Storage Facility

The MSF site does not contain state or federally protected wetlands. Therefore, impacts to state or federally protected wetlands will not occur as a result of the MSF.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.4 Threshold BIO-CON-4: Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

7.2.4.1 No Project Alternative

The Project would not be constructed under the No Project Alternative; the environmental setting would remain in current conditions. Under the No Project Alternative, there would be no interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites and no impacts would occur as a result of project construction.

7.2.4.2 Locally Preferred Alternative

As discussed in Section 4.1.3.4, the Project is located within developed urban areas and CDFW does not include any mapped California Essential Habitat Connectivity areas within the Affected Area nor does it contain any Missing Linkages as identified by the South Coast Wildlands Network. However, the drainage channels may facilitate some wildlife movement for urban-tolerant mammals, such as coyotes and raccoons, and mature ornamental shrubs and trees may serve as habitat linkages for urban-tolerant bird species. Therefore, the Project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites; no impacts will occur.

Mitigation Measure

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.4.3 Design Option: Close 186th Street

186th and 187th Streets are substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e. urban, disturbed). Therefore, consistent with the LPA without the design option, construction of the LPA with the design option would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites, and no impacts would occur.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.4.4 Maintenance and Storage Facility

The MSF site is substantially similar to the rest of the Affected Area in regard to existing biological conditions (i.e., urban, disturbed). Therefore, MSF construction will not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites; no impacts will occur as a result of MSF construction.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.5 Threshold BIO-CON-5: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

7.2.5.1 No Project Alternative

The Project would not be constructed under the No Project Alternative; the environmental setting would remain in current conditions. Under the No Project Alternative, the Project would not conflict with any local policies or ordinances protecting biological resources, and no impacts would occur as a result of project construction.

7.2.5.2 Locally Preferred Alternative

Numerous protected street trees in the Cities of Los Angeles, Huntington Park, Bell, South Gate, Downey, and Cerritos are present within the Affected Area. The exact number and species of protected trees potentially impacted by the Project is not known at this time. Based on a desktop study, approximately 85 trees could be affected by construction of the LPA. Impacts to protected trees will result in a potentially significant impact without mitigation. With the implementation of Mitigation Measure BIO-4, an Arborist Study prepared by a Certified Arborist, will be completed to plot the location of each protected tree within the Affected Area that may be encroached upon, and identify each protected tree proposed to be removed or retained and impacted. Additionally, the Arborist Study will detail a mitigation program for potential impacts to be tailored to comply with the requirements of each relevant local jurisdiction. Thus, impacts related to protected trees will be reduced to a less than significant level with mitigation.

Mitigation Measure

Implementation of Mitigation Measure BIO-4 as described in Section 6.2 will be required.

Impacts Remaining After Mitigation

Implementation of Mitigation Measure BIO-4 will require the preparation of an Arborist Study to plot locations of protected trees and a detailed mitigation program for potential impacts. Required adherence to Mitigation Measure BIO-4 will reduce impacts to a less than significant level.

7.2.5.3 Design Option: Close 186th Street

Construction of the LPA with the design option would not conflict with any local policies or ordinances protecting biological resources, and no impacts would occur.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.5.4 Maintenance and Storage Facility

Construction of the MSF will not conflict with any local policies or ordinances protecting biological resources, and no impacts will occur as a result of MSF construction.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.6 Threshold BIO-CON-6: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

7.2.6.1 No Project Alternative

Under the No Project Alternative, the Project would not be constructed, and the environmental setting would remain in current conditions. Under the No Project Alternative, the Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and no impacts would occur as a result of Project construction.

7.2.6.2 Locally Preferred Alternative

The Project is not located in an area with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Thus, the Project will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impacts will occur.

Mitigation Measure

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.6.3 Design Option: Close 186th Street

Construction of the LPA with the design option would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Therefore, no impacts would occur, and mitigation would not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

7.2.6.4 Maintenance and Storage Facility

Construction of the MSF will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Therefore, no impacts will occur, and mitigation will not be required.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

No impacts will occur.

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APPENDIX A: FINAL AQUATIC RESOURCES REPORT

Los Angeles County
Metropolitan Transportation Authority

West Santa Ana Branch Transit Corridor

Appendix A: Final Aquatic Resources Delineation

Task No. 12.1a/66.0b

Metro

WEST SANTA ANA BRANCH TRANSIT CORRIDOR PROJECT
Contract No. AE5999300

Appendix A:
Final Aquatic Resources Delineation

Task No. 12.1 (Deliverable No. 12.1a/66.0b)

Prepared for:

Metro

Los Angeles County
Metropolitan Transportation Authority

Prepared by:

WSP
444 South Flower Street, Suite 800
Los Angeles, California 90071

Prepared with the Assistance of

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93001

November 20, 2020

CONTRIBUTORS

Robin Murray, Rincon

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ACRONYMS AND ABBREVIATIONS

°F	Fahrenheit
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
GPS	global positioning satellite
I	Interstate
LA	Los Angeles
LADWP	Los Angeles Department of Water and Power
LRT	light rail transit
OBL	Obligate Wetland
OHWM	Ordinary High Water Mark
Project	West Santa Ana Branch Transit Corridor
Rincon	Rincon Consultants, Inc.
RWQCB	Regional Water Quality Control Board
SR	State Route
SWRCB	State Water Resources Control Board
TNW	Traditionally Navigable Water
UPL	Obligate Upland
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
WSAB	West Santa Ana Branch

1 EXECUTIVE SUMMARY

On behalf of WSP USA, Inc., Rincon Consultants, Inc. (Rincon) prepared this Aquatic Resources Delineation for the West Santa Ana Branch (WSAB) Transit Corridor Project (project), located in Los Angeles County, California.

The delineation was conducted to confirm the location and extent of resources potentially subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW). Proposed impacts to potential jurisdictional features may be subject to USACE/RWQCB/CDFW notification and permit requirements, pursuant to Section 404 of the Clean Water Act and Sections 1600 *et seq*. of the California Fish and Game Code. This report was prepared to support USACE, RWQCB, and CDFW permitting processes, as well as environmental review under the California Environmental Quality Act (CEQA).

Three potentially jurisdictional drainages were identified and delineated within the study area. Total potential USACE jurisdiction is 5.79 acres; total potential RWQCB jurisdiction is 5.79 acres; and total potential CDFW jurisdiction is 9.83 acres.

2 INTRODUCTION

Rincon Consultants, Inc. (Rincon) conducted an aquatic resources delineation for the proposed West Santa Ana Branch Transit Corridor Project (project). The delineation was conducted to determine the location and extent of potentially jurisdictional waters near the proposed project footprint. Potentially jurisdictional waters include waters of the U.S. subject to the jurisdictions of the USACE and the Los Angeles RWQCB, and streambed/banks and associated riparian vegetation potentially subject to the jurisdictions of the RWQCB and CDFW. Any proposed work activities in areas identified as jurisdictional waters and/or streambed/banks and associated riparian habitat may be subject to the permit requirements of the USACE under Section 404 of the Clean Water Act (CWA), the Los Angeles RWQCB under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), and/or CDFW pursuant to Sections 1600 *et seq*. of the California Fish and Game Code. Final jurisdictional determinations of the boundaries of waters and streambed habitats are made by each agency.

2.1 Project Location

The project proposes a light rail transit (LRT) line that would extend from four possible northern termini in southeast Los Angeles (LA) County to a southern terminus in the City of Artesia. The project is located within Ranges 12 and 13 west, Townships 1, 2, and 3 south, and Sections 11 and 17 (San Bernardino Principal Meridian) depicted on *South Gate, Inglewood, Los Angeles, and Hollywood* California United States Geological Survey 7.5-minute quadrangle maps. The proposed project begins in downtown Los Angeles and terminates at Pioneer Boulevard with a potential terminus at the Los Angeles/Orange County line to the south (Figure 2-1 and Figure 2-2).

All proposed alignment sections are within previously developed areas, such as public right-of-way and industrial, commercial, and residential areas. For the purpose of environmental analysis, the project is divided into two sections, northern and southern, with four alternatives. All project alternatives are proposed to cross potentially jurisdictional drainages in the same location, except Alternative 4, which only crosses the San Gabriel River. All proposed crossings are located in the southern section of the project. This report addresses all project alternatives.

Northern Section

The Northern Section includes approximately 8 miles of Alternatives 1 and 2 and 3.8 miles of Alternative 3 and covers the geographic area from downtown Los Angeles to Florence Avenue, where the alignment transitions into the San Pedro Subdivision ROW (Figure 2-3). This section traverses the Cities of Los Angeles, Vernon, Huntington Park, Bell, and the unincorporated Florence-Firestone community of LA County.

Southern Section

The Southern Section is approximately 11 miles long and extends from south of Florence Avenue in the City of Huntington Park to the terminus at Pioneer Station in the City of Artesia, as shown in Figure 2-4. This section traverses through the Cities of Huntington Park, Cudahy, South Gate, Downey, Paramount, Bellflower, Cerritos, and Artesia.

Figure 2-1. Regional Vicinity

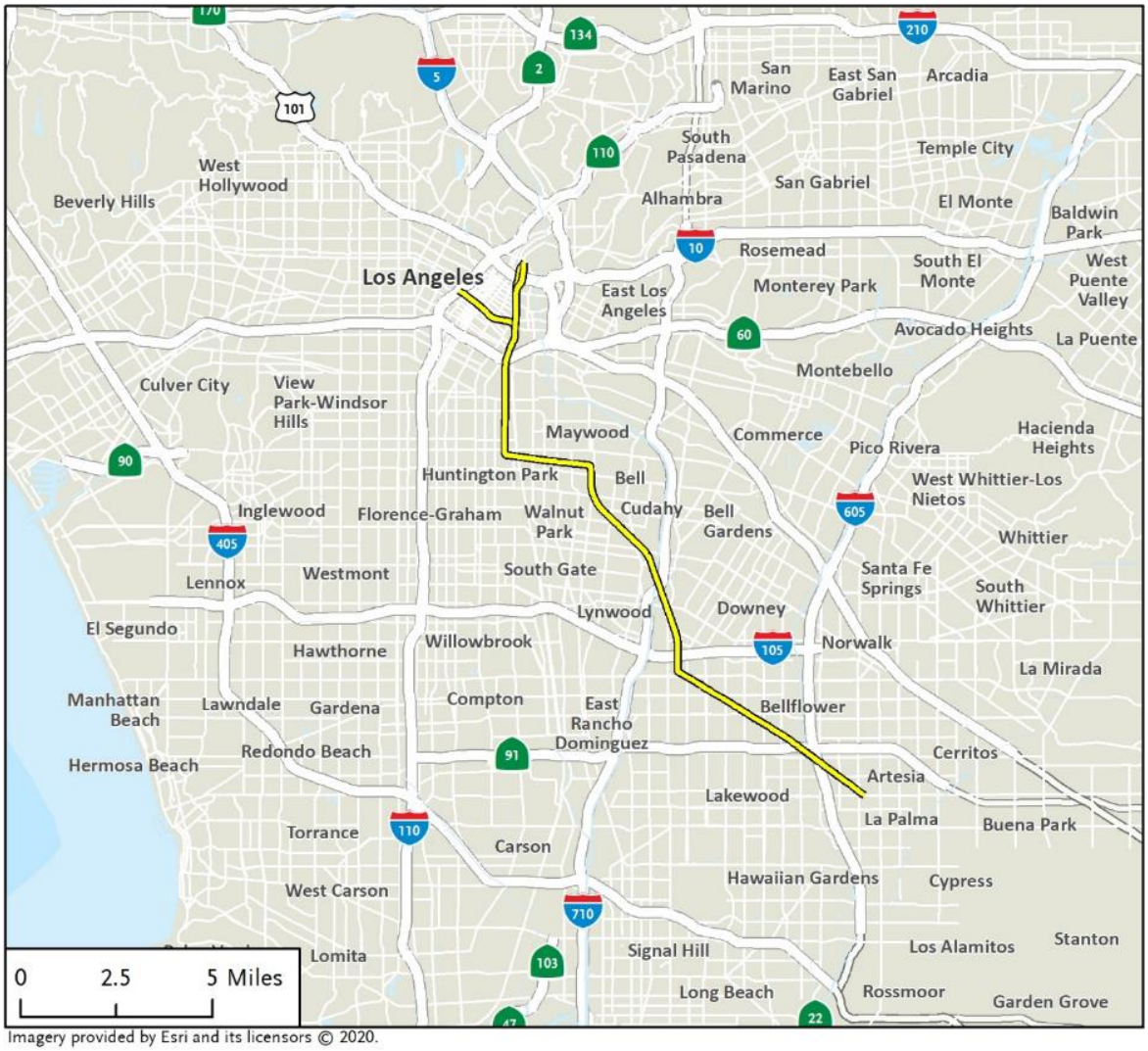


Figure 2-2. Project Overview

Source: Metro 2020

Figure 2-3. Northern Section

Source: Metro 2020

Figure 2-4. Southern Section

Source: Metro 2020

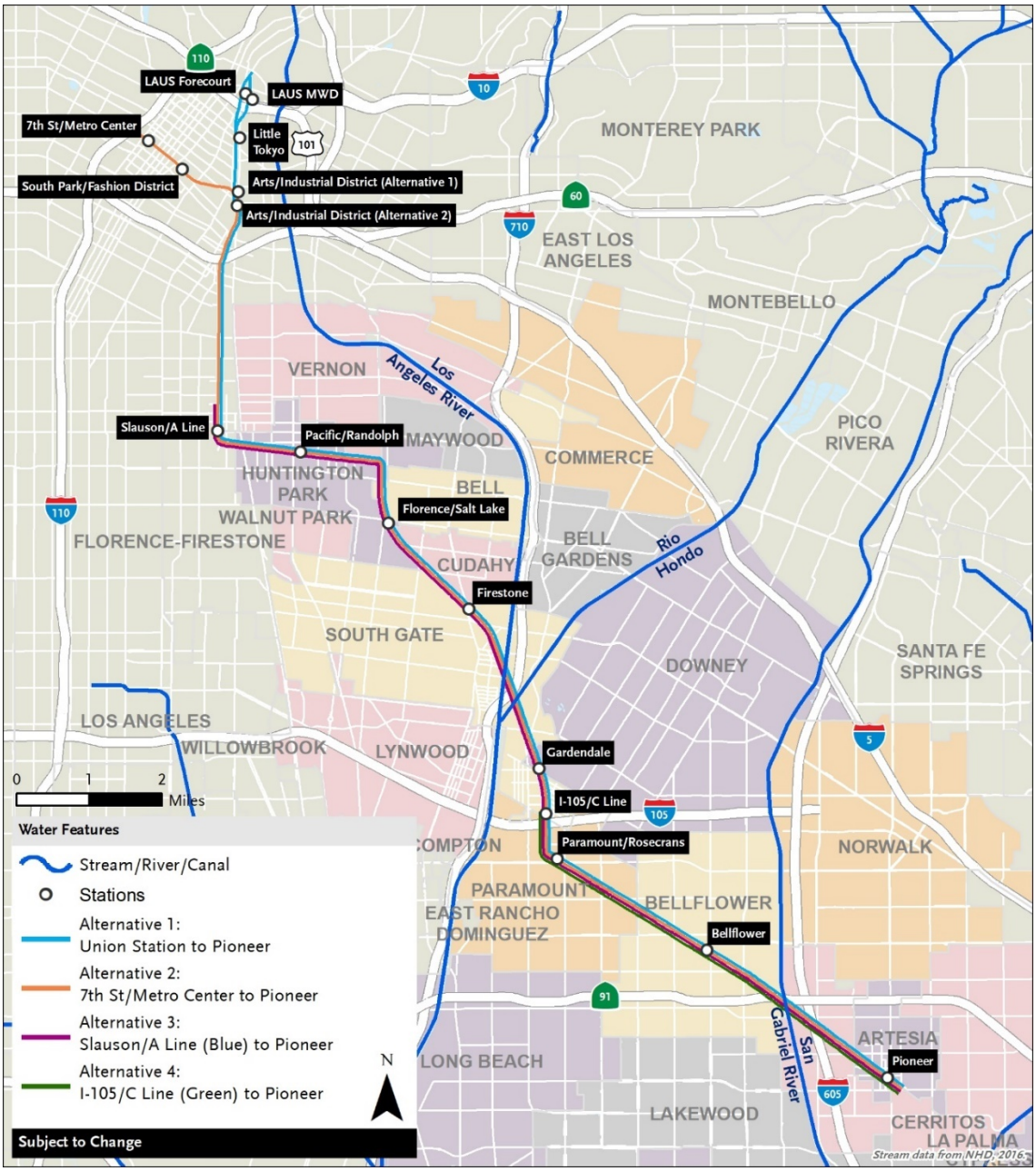
2.2 Project Description

The Project is one of 17 transit projects funded by Measure R, a one-half cent sales tax approved by LA County voters in November 2008, and Measure M, an extension of Measure R and an additional one-half cent sales tax approved by voters in November 2016. The Project is a new LRT line that would extend from four possible northern termini in southeast LA County to a southern terminus in the City of Artesia serving the communities of the Arts District, the Financial District, and surrounding communities in the City of Los Angeles, the unincorporated Florence-Graham community of LA County, and the Cities of Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Artesia, and Cerritos. The Project would provide reliable, fixed- guideway transit service that would increase mobility and connectivity for historically underserved, transit-dependent and environmental justice communities; reduce travel times on local and regional transportation networks; and accommodate substantial future employment and population growth.

Alternatives 1, 2, and 3 of the proposed alignment cross the Los Angeles River and the Rio Hondo Channel (a tributary to the Los Angeles River) near Interstate (I-) 710. Alternatives 1, 2, 3, and 4 of the proposed alignment cross the San Gabriel River at State Route (SR) 91 in the City of Bellflower (Figure 2-5). Alternatives 1, 2, and 3 traverse the Los Angeles River between the southern end of Wood Avenue and I-710 in the City of Lynwood (Figure 2-6). Alternatives 1, 2, and 3 traverse the Rio Hondo Channel between I-710 and Ruchti Road in the City of Lynnwood (Figure 2-6). Alternatives 1, 2, 3, and 4 traverse the San Gabriel River at SR-91 in the City of Bellflower (Figure 2-7). The Study Area is defined as where the project alignment crosses each river, plus a 100-foot buffer.

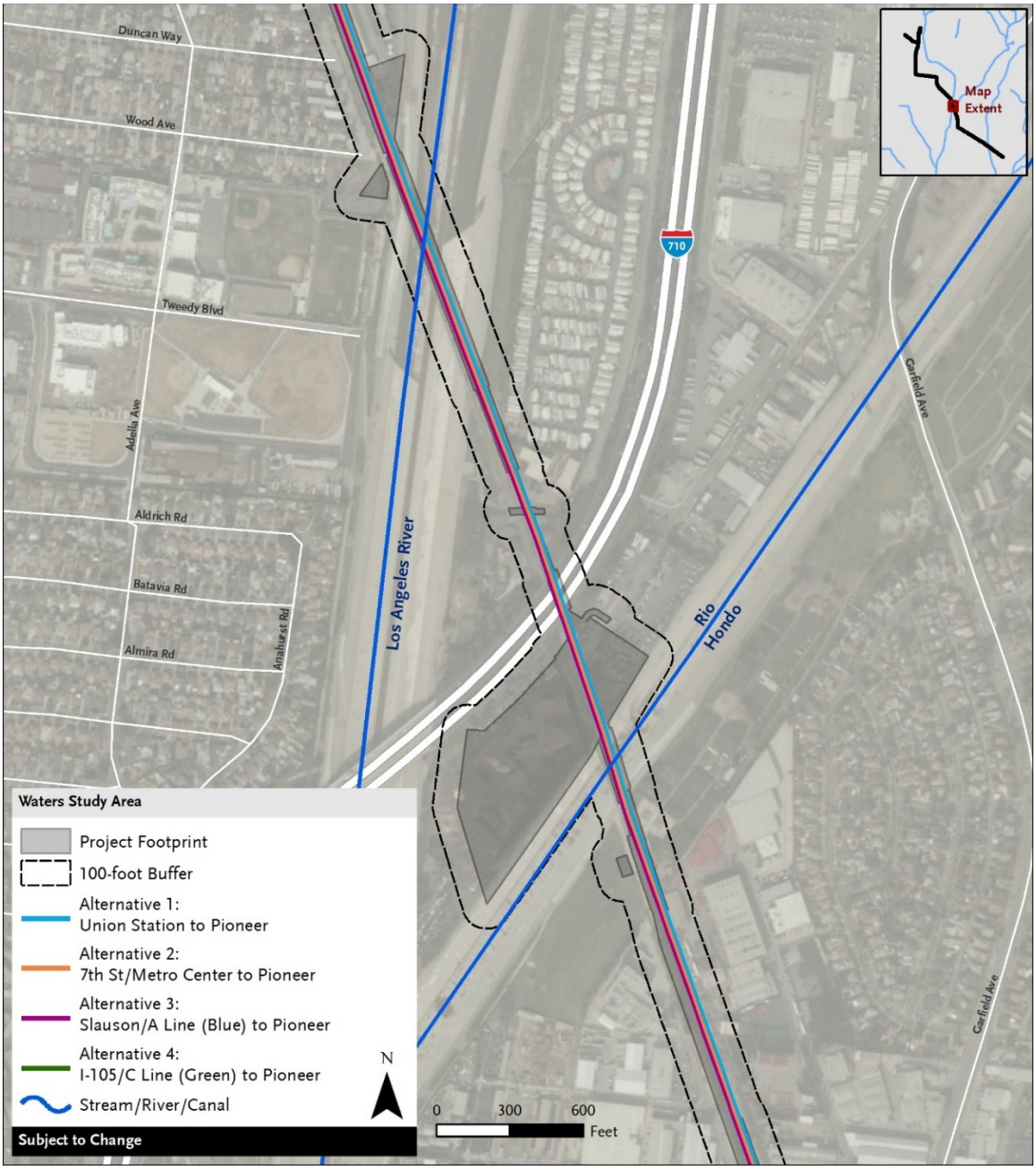
Current engineering plans indicate that the crossings would be designed as bridges; permanent piers and debris walls would be constructed within the LA River, Rio Hondo, and San Gabriel River. The Project does not propose to alter any embankments or the existing contours of the three rivers.

Figure 2-5. River Crossings



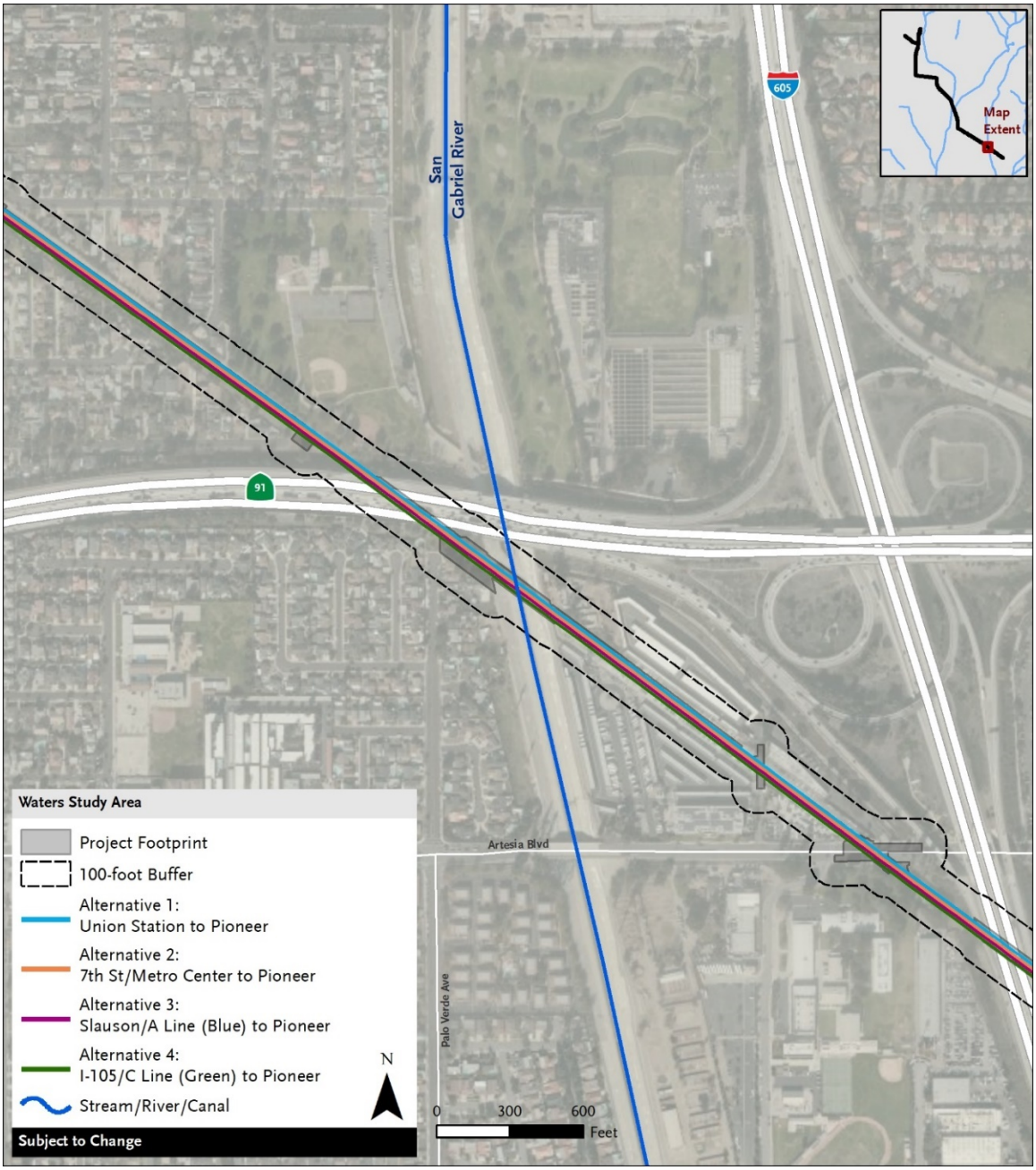
Source: Metro 2020

Figure 2-6. Los Angeles River and Rio Hondo



Source: Metro 2020

Figure 2-7. San Gabriel River



Source: Metro 2020

2.3 Environmental Setting

Topography and Hydrology

The Study Area is located in the Los Angeles Basin, which is an oval-shaped, alluvial plain spanning approximately 40 miles northwest to southeast. The Los Angeles Basin is bordered by the Santa Monica Mountains on the north, the Puente Hills to the east, the Pacific Ocean to the west, and the Santa Ana Mountains to the south. The topography of the region is generally flat and includes commercial urban lands and roads and channelized drainages. Elevation ranges from 78 feet to 294 feet above mean sea level. All proposed alignment sections are within previously developed areas, such as public right-of-way and industrial, commercial, and residential areas.

The Study Area is within the Los Angeles River hydrologic unit (HUC 18070105) of the South Coast hydrologic region. The Los Angeles River is a perennial river originating in the Simi Hills and Santa Susana Mountains west of the City of Los Angeles and discharges to the Pacific Ocean. Most of the river flows through a concrete-lined channel and a series of flood-control basins before reaching the Pacific Ocean in the City of Long Beach. The Rio Hondo is a perennial river originating in the San Gabriel Mountains and is tributary to the Los Angeles River. The confluence of the two rivers is less than 1 mile south of the Project. The San Gabriel River is a perennial river originating in the San Gabriel mountains and discharges to the Pacific Ocean between the Cities of Long Beach and Seal Beach.

The Los Angeles River and Rio Hondo were channelized by the USACE between 1938 and 1960 as a response to destructive flood events in the 1930s (Los Angeles Department of Water and Power [LADWP] 2020a). An approximate 10-mile stretch of the San Gabriel River was also channelized and concrete lined during this period from below Whittier Narrows Dam to past Coyote Creek (LADWP 2020b).

Climate

Weather in Los Angeles is typical of a Mediterranean-like semi-arid climate. Summers are warm and dry while winters are cool and relatively wet. Annual precipitation in LA County is typically about 12 to 15 inches, with the majority of rainfall occurring between November and April in typical years. Near the Study Area, most of the precipitation occurs between November and March, and mean annual temperatures range from 55 to 74 degrees Fahrenheit (°F) (Western Regional Climate Center 2020).

Soils

Soils within the Study Area have been highly disturbed due to surrounding development and much of the area consists of fill. Based on a desktop review of the United States Department of Agriculture (USDA), National Resources Conservation Service Web Soil Survey (USDA 2020a), the Study Area contains one mapped soil type: Urban Land, frequently flooded. This soil type is mapped within channels with a manufactured layer and is not considered hydric.

3 METHODOLOGY

Rincon prepared this aquatic resources delineation of waters of the United States, waters of the State, and CDFW-jurisdictional streambeds based on a review of available literature and imagery supplemented with a field reconnaissance survey. The delineation assessed drainages within the project alignment with boundaries of all features mapped in the field using global positioning satellite (GPS) technology.

This aquatic resources delineation was conducted in accordance with currently accepted regulatory guidelines. The delineation analysis began with a literature review of existing studies, maps, and other publications. After completion of the literature review, a field delineation was completed to identify, describe, and map all potential jurisdictional waters within the Study Area.

3.1 Literature Review

Prior to the field survey, Rincon reviewed aerial photographs of the site; regional and site-specific topographic maps; *the Soil Survey, Los Angeles County, California, Southeastern Part* (USDA 1973); and other available background information to better characterize the nature and extent of potentially jurisdictional waters and wetlands. The *National Wetlands Inventory* (USFWS 2020) and the *National Hydrography Dataset* (USGS 2020a) were reviewed to determine if any wetlands or other waters had been previously documented and mapped within the Study Area. The *National Hydric Soils List by State: California* (USDA 2020b) was also reviewed to determine if any soil map units mapped in the site were classified as hydric.

3.2 Field Survey

Rincon Senior Biologist Robin Murray and Associate Biologist Gayle Bufo conducted an aquatic resources delineation field survey within the Study Area on July 24, 2020. All potentially jurisdictional features within the site were inspected to record existing conditions and determine jurisdictional limits.

Drainage features, width measurements, and wetland sample points were mapped using a Trimble® GeoXT GPS unit and recent aerial photography. Width measurements for USACE jurisdiction were determined based on the lateral extent of the Ordinary High Water Mark (OHWM). RWQCB jurisdiction was determined in accordance with the previously listed methodologies to identify waters of the U.S. The procedures of the State Water Resources Control Board's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (RWQCB 2019) were applied, and the Study Area was reviewed for features that may have fallen outside federal jurisdiction due to lack of connectivity or insufficient flow. CDFW jurisdiction was delineated in accordance with Section 1602(a) of the California Fish and Game Code and were measured laterally from bank to bank at the top of the channel or to the outer drip-line of associated riparian vegetation, if present. Appendix A provides pertinent regulations and definitions pertaining to this aquatic resources delineation.

One OHWM data sheet and one wetland sample point were completed at a representative location within the Study Area of each crossing to determine the presence/absence of wetland indicators, such as hydrophytic vegetation, hydric soils, and wetland hydrology. Soil test pits were not conducted since the Study Area consisted of concrete-lined channels devoid of soils.

4 DELINEATION RESULTS

Three potentially jurisdictional drainages, the Los Angeles River, Rio Hondo, and San Gabriel River were identified within the Study Area.

4.1 Los Angeles River

The Los Angeles River originates in the Simi Hills and Santa Susana Mountains west of the City of Los Angeles. The Los Angeles River flows eastward toward Burbank, then southward to Long Beach and discharges to the Pacific Ocean. A large portion of the river flows through a concrete-lined channel and a series of flood control basins before reaching the Pacific Ocean. The mainstem of the Los Angeles River is considered a "Traditionally Navigable Water" (TNW) from its origins at the confluence of Arroyo Calabasas and Bell Creek to San Pedro Bay at the Pacific Ocean (U.S. Environmental Protection Agency 2010). The entirety of the Los Angeles River within the Study Area is a concrete-lined channel and is generally devoid of vegetation. Vegetation present is sparse and situated within seams of the concrete. Species observed were primarily the non-native plants African finger millet (*Eleusine coracana*), six-petal water primrose (*Ludwigia hexapetala*), and Bermuda grass (*Cynodon dactylon*). Within the concrete-lined portion of the Los Angeles River, the OHWM is defined by the structure of the concrete and water stains present on the concrete. Within the Study Area, the OHWM is approximately 250 feet in width. A low-flow channel approximately 25 feet wide is present in the center of the Los Angeles River. The concrete banks of the Los Angeles River are approximately 20 to 30 feet high and slope downward at an approximately 45° angle from the top of the bank. The tops of the banks are concrete.

4.2 Rio Hondo

The headwaters of the Rio Hondo originate in the San Gabriel Mountains; as a named river, it begins west of Irwindale and flows southwest to its confluence with the Los Angeles River in South Gate, less than 1 mile south of the Study Area. The entirety of the Rio Hondo within the Study Area is a concrete-lined channel. The Rio Hondo is generally devoid of vegetation and what vegetation is present is sparse and situated within seams of the concrete. Species observed were primarily the non-native plants African finger millet, six-petal water primrose, and Bermuda grass. Within the concrete-lined portion of the Rio Hondo, the OHWM is defined by the structure of the concrete and water stains present on the concrete. Within the Study Area, the OHWM is approximately 100 feet in width. The concrete banks of the Rio Hondo are approximately 10 to 30 feet high and slope downward at an approximately 45° angle from the top of the bank. The tops of the banks are concrete.

4.3 San Gabriel River

The headwaters of the San Gabriel River originate in the San Gabriel Mountains. The river flows to the southwest, generally paralleling the Rio Hondo. The river then turns at the City of Downey and flows southward until it reaches the Pacific Ocean. The San Gabriel River is considered a TNW at 2.5 feet above mean sea level, near its confluence with the Pacific Ocean (USACE 1972). Based on stream gauge data (USGS 2020b), the flow rate of the San Gabriel River in Long Beach averages 33.8 cubic feet per second, indicating that the river contributes regular surface-water flows to a TNW during a typical year. The entirety of the San Gabriel River within the Study Area is a concrete-lined channel. Due to its concrete lining, the San

Gabriel River within the Study Area is generally devoid of vegetation. Vegetation present is limited to occasional seams of the concrete. Species observed include an emerging seedling of Mexican fan palm (*Washingtonia robusta*) and flax-leaved horseweed (*Erigeron bonariensis*), which are non-native species. Within the concrete-lined portion of the San Gabriel River, the OHWM is defined by the structure of the concrete and water stains present on the concrete. Within the Study Area, the OHWM is approximately 90 feet in width. A low-flow channel approximately 18 feet wide is present in the center of the San Gabriel River. The concrete banks of the San Gabriel River are approximately 10 to 15 feet high and slope downward at an approximately 45° angle from the top of the bank. The tops of the banks are concrete.

5 ASSESSMENT OF JURISDICTIONAL WATERS AND WETLANDS

Based upon the findings of Rincon's jurisdictional delineation, the Los Angeles River, Rio Hondo, and San Gabriel River are subject to USACE, RWQCB, and CDFW jurisdiction. All three drainages contain an OHWM and bed, bank, and channel features, although riparian vegetation is absent. No wetlands are present due to the absence of soils and the extremely limited distribution of vegetation. These drainages are classified as USACE non-wetland waters. No isolated waters of the State are present.

Table 5.1 summarizes the total acreage of jurisdictional waters and wetlands on-site per regulatory agency. Figure 5-1, Figure 5-2, and Figure 5-3 show the location and extent of USACE/RWQCB and CDFW jurisdiction within the Study Area for the Los Angeles River, Rio Hondo, and San Gabriel River, respectively.

Table 5.1. Potential USACE/RWQCB, and CDFW Jurisdictional Waters within the Study Area

Drainage	USACE/RWQCB Jurisdiction		CDFW Jurisdiction
	Non-wetland Waters Acres (Linear Feet)	Wetland Waters Acres (Linear Feet)	Streambed/ Riparian Acres (Linear Feet)
Los Angeles River	3.308 (499)	0 (0)	4.783 (844)
Rio Hondo	1.63 (1,324)	0 (0)	3.677 (1,389)
San Gabriel River	0.856 (413)	0 (0)	1.369 (407)
Totals	5.794 (2,236)	0 (0)	9.829 (2,640)

Source: Metro 2020
Notes: CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board; USACE = United States Army Corp of Engineers

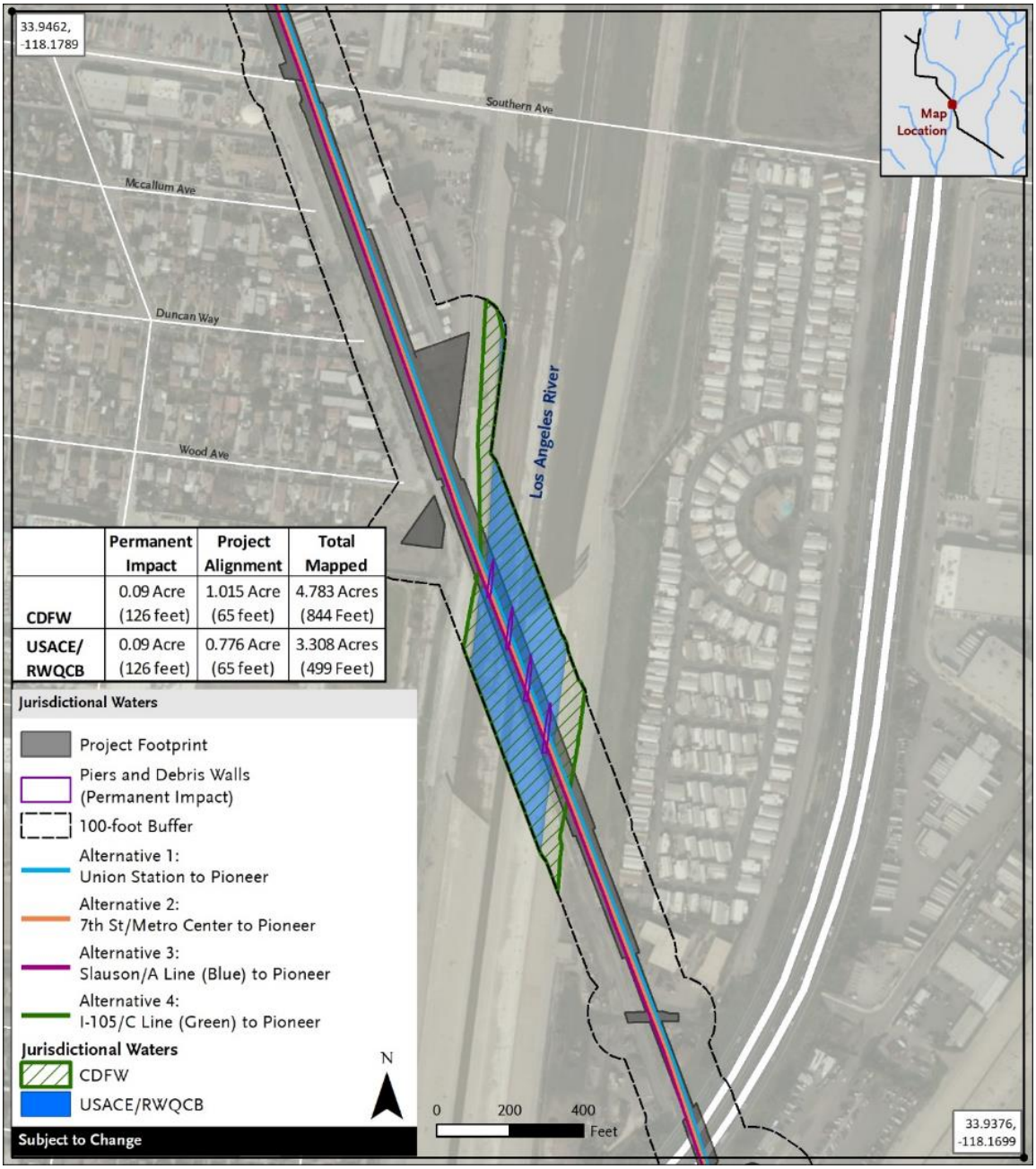
5.1 USACE and RWQCB Jurisdiction

Within the Study Area, the Los Angeles River contains 3.308 acres of waters subject to the jurisdiction of the USACE and RWQCB. Since the Los Angeles River is a TNW and a tributary to the Pacific Ocean, it is subject to the jurisdiction of the USACE under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act.

Within the Study Area, the Rio Hondo contains 1.63 acres of waters subject to the jurisdiction of the USACE and RWQCB. Since the Rio Hondo regularly contributes surface flow to the Los Angeles River, a TNW tributary to the Pacific Ocean, it is subject to the jurisdiction of the USACE under Section 404 of the CWA.

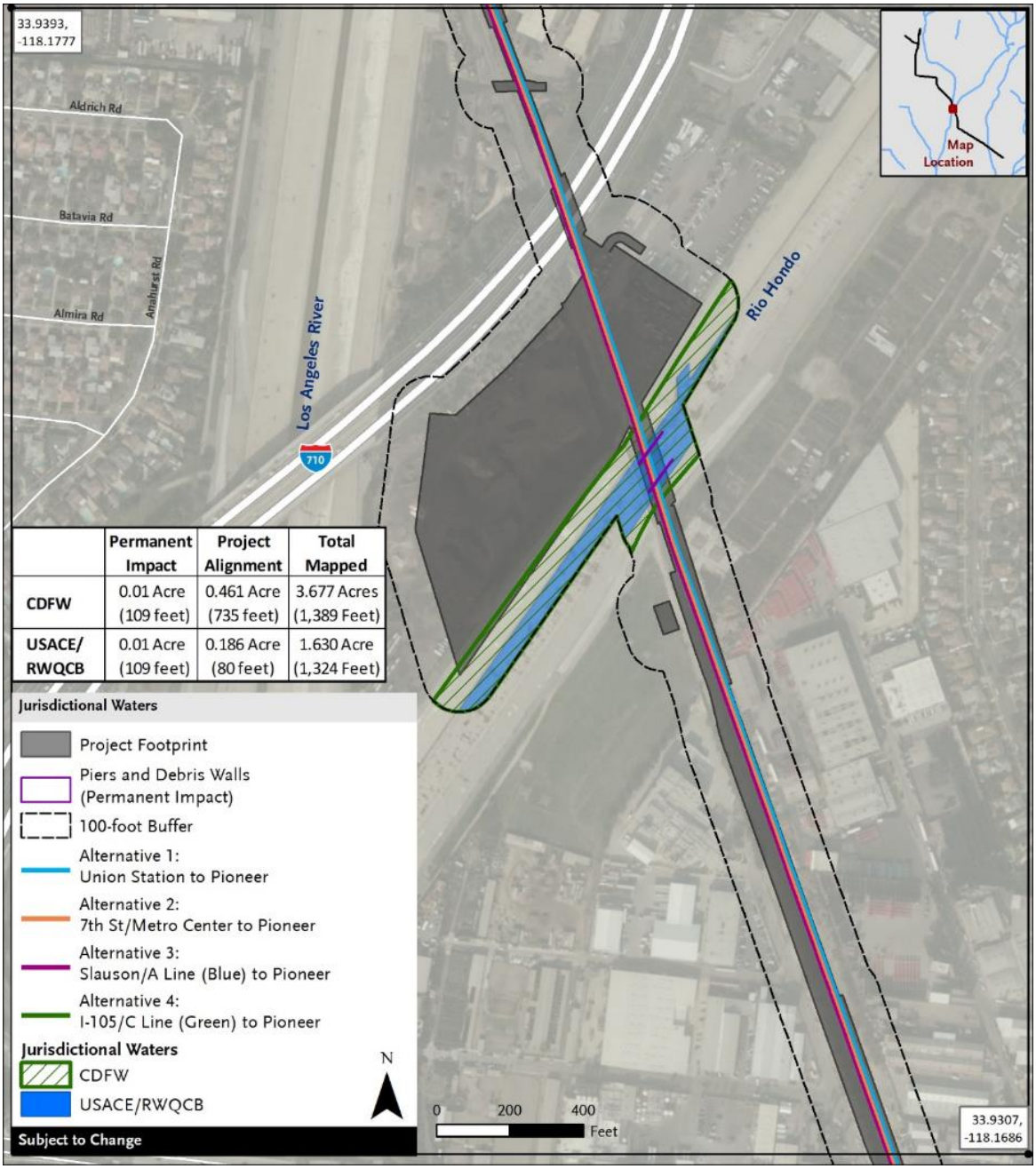
Within the Study Area, the San Gabriel River contains 0.856 acre of waters subject to the jurisdiction of the USACE and RWQCB. Since the San Gabriel River regularly contributes surface flow to the Pacific Ocean in a typical year, it is subject to the jurisdiction of the USACE under Section 404 of the CWA.

Figure 5-1. Aquatic Resources - Los Angeles River



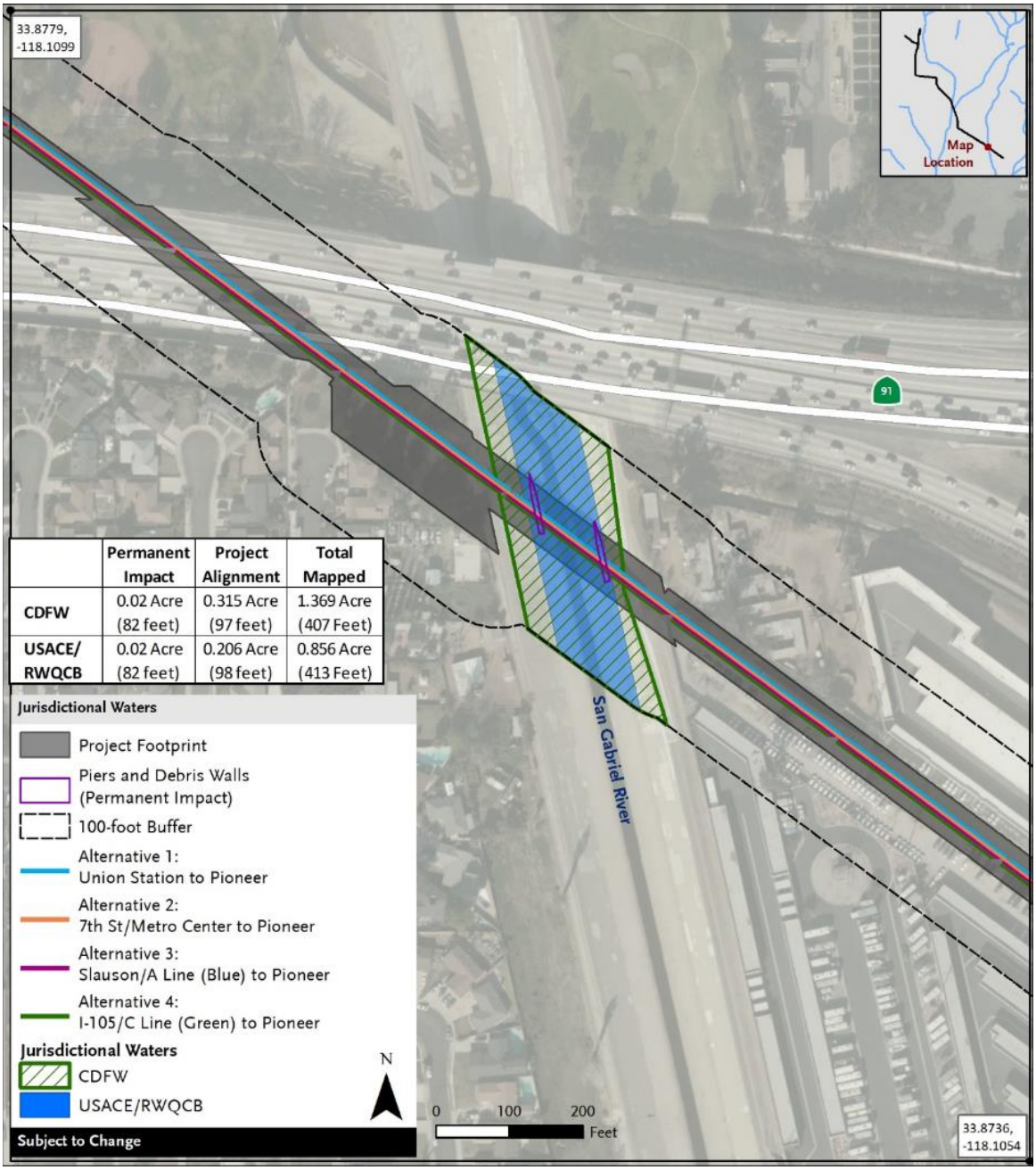
Source: Metro 2020

Figure 5-2. Aquatic Resources - Rio Hondo



Source: Metro 2020

Figure 5-3. Aquatic Resources - San Gabriel River



	Permanent Impact	Project Alignment	Total Mapped
CDFW	0.02 Acre (82 feet)	0.315 Acre (97 feet)	1.369 Acre (407 Feet)
USACE/ RWQCB	0.02 Acre (82 feet)	0.206 Acre (98 feet)	0.856 Acre (413 Feet)

Source: Metro 2020

5.2 CDFW Jurisdiction

Within the Study Area, the Los Angeles River contains 4.783 acres of non-riparian streambed subject to the jurisdiction of the CDFW. This represents the farthest extent of jurisdictional area within the river. The river's measured bank-to-bank width ranged from 320 feet to 345 feet.

Within the Study Area, the Rio Hondo contains 3.677 acres of non-riparian streambed subject to the jurisdiction of the CDFW. This represents the farthest extent of jurisdictional area within the river. The river's measured bank-to-bank width ranged from 170 feet to 190 feet.

Within the Study Area, the San Gabriel River contains 1.369 acre of non-riparian streambed subject to the jurisdiction of the CDFW. This represents the farthest extent of jurisdictional area within the river. The river's measured bank-to-bank width ranged from 135 feet to 155 feet.

5.3 Impacts to Jurisdictional Areas

This project has the potential to impact jurisdictional waters and wetlands regulated by the USACE, RWQCB, and CDFW. These proposed impacts are outlined in Table 5.2 and shown on Figure 5-1, Figure 5-2, and Figure 5-3. All proposed impacts to jurisdictional waters are within previously concreted and/or paved areas. As the Project's engineering plans are preliminary in nature, they may be subject to further refinement. The area of temporary impacts associated with project construction is unknown at this time but is not anticipated to result in significant disturbance to the concrete lining of the drainages.

Table 5.2. Potential USACE, RWQCB, and CDFW Permanent Impacts

Feature	Impacts to Waters of the U.S./State		Impacts to CDFW Jurisdictional Streambed Acres (Linear Feet)
	Non-wetland Waters of the U.S./State Acres (Linear Feet)	Wetland Waters of the U.S./State Acres (Linear Feet)	
Los Angeles River	0.09 (126)	0 (0)	0.09 (126)
Rio Hondo	0.01 (109)	0 (0)	0.01 (109)
San Gabriel River	0.02 (82)	0 (0)	0.02 (82)
Totals	0.12 (317)	0 (0)	0.12 (317)

Source: Metro 2020
Notes: CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board; USACE = United States Army Corp of Engineers

6 CONCLUSIONS AND RECOMMENDATIONS

As described above, the project has the potential to affect jurisdictional waters in a manner regulated by the USACE, RWQCB, and CDFW. USACE Nationwide Permit 14 covers linear transportation projects in waters of the United States with notification to the USACE and RWQCB for projects causing loss of waters of less than 0.5 acre. For projects causing loss of waters greater than 0.5 acre, an individual 404 permit would be required from the USACE. Additionally, a 401 Water Quality Certification from the RWQCB would be required. A CDFW notification of Lake or Streambed Alteration is required for work within the jurisdictional streambed and streambank. These agencies should be consulted to confirm their roles and requirements so that all required permits can be acquired prior to initiating the Project.

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APPENDIX A WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Los Angeles River City/County: South Gate/Los Angeles Sampling Date: 7/24/2020

Applicant/Owner: Los Angeles County Metropolitan Transportation Authority State: CA Sampling Point: 1

Investigator(s): Robin Murray, Gayle Bufo Section, Township, Range: S T3S R12W

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): C Lat: 33.941238° Long: -118.174343° Datum: WGS84

Soil Map Unit Name: Los Angeles County, California, Southeastern Part NWI classification: R2USCr

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

Channelized, concrete-lined Los Angeles River. Flows are perennial but wetlands are absent due to manufactured substrate.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 1,000 ft2)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A	0		
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 1,000 ft2)			
1. N/A	0		
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 1,000 ft2)			
1. Ludwigia hexapetala	<1	Y	NI
2. Eleusine coracana	<1	Y	NI
3. Cynodon dactylon	<1	Y	FACU
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. N/A	0		
2.			
	<1 = Total Cover		

% Bare Ground in Herb Stratum >99 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	1	x 4 =	4
UPL species	0	x 5 =	0
Column Totals:	1 (A)		4 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks:

Vegetation present is extremely sparse and limited to cracks in concrete.

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0	N/A						N/A	no soils present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: concrete

Depth (inches): 0

Hydric Soil Present? Yes ___ No ✔

Remarks:

Concrete lined channel with no soils present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✔ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✔ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ✔ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): ___

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

River was actively flowing at time of survey. Los Angeles River is a perennial feature. Observed water stains at ordinary high water mark.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Los Angeles River City/County: South Gate/Los Angeles Sampling Date: 7/24/2020

Applicant/Owner: Los Angeles County Metropolitan Transportation Authority State: CA Sampling Point: 1

Investigator(s): Robin Murray, Gayle Bufo Section, Township, Range: S T3S R12W

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): C Lat: 33.941238° Long: -118.174343° Datum: WGS84

Soil Map Unit Name: Los Angeles County, California, Southeastern Part NWI classification: R2USCr

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

Channelized, concrete-lined Los Angeles River. Flows are perennial but wetlands are absent due to manufactured substrate.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 1,000 ft2)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A	0		
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 1,000 ft2)			
1. N/A	0		
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 1,000 ft2)			
1. Ludwigia hexapetala	<1	Y	NI
2. Eleusine coracana	<1	Y	NI
3. Cynodon dactylon	<1	Y	FACU
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. N/A	0		
2.			
	<1 = Total Cover		

% Bare Ground in Herb Stratum >99 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	1	x 4 =	4
UPL species	0	x 5 =	0
Column Totals:	1 (A)		4 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks:

Vegetation present is extremely sparse and limited to cracks in concrete.

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0	N/A						N/A	no soils present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: concrete

Depth (inches): 0

Hydric Soil Present? Yes ___ No ✔

Remarks:

Concrete lined channel with no soils present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✔ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✔ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ✔ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): ___

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

River was actively flowing at time of survey. Los Angeles River is a perennial feature. Observed water stains at ordinary high water mark.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Los Angeles River City/County: South Gate/Los Angeles Sampling Date: 7/24/2020

Applicant/Owner: Los Angeles County Metropolitan Transportation Authority State: CA Sampling Point: 1

Investigator(s): Robin Murray, Gayle Bufo Section, Township, Range: S T3S R12W

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): C Lat: 33.941238° Long: -118.174343° Datum: WGS84

Soil Map Unit Name: Los Angeles County, California, Southeastern Part NWI classification: R2USCr

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

Channelized, concrete-lined Los Angeles River. Flows are perennial but wetlands are absent due to manufactured substrate.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 1,000 ft2)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A	0		
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 1,000 ft2)			
1. N/A	0		
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 1,000 ft2)			
1. Ludwigia hexapetala	<1	Y	NI
2. Eleusine coracana	<1	Y	NI
3. Cynodon dactylon	<1	Y	FACU
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. N/A	0		
2.			
	<1 = Total Cover		

% Bare Ground in Herb Stratum >99 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	1	x 4 =	4
UPL species	0	x 5 =	0
Column Totals:	1 (A)		4 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks:

Vegetation present is extremely sparse and limited to cracks in concrete.

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0	N/A						N/A	no soils present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: concrete

Depth (inches): 0

Hydric Soil Present? Yes ___ No ✔

Remarks:

Concrete lined channel with no soils present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✔ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✔ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ✔ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): ___

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

River was actively flowing at time of survey. Los Angeles River is a perennial feature. Observed water stains at ordinary high water mark.

APPENDIX B REGULATORY OVERVIEW AND DEFINITIONS

REGULATORY OVERVIEW AND DEFINITIONS

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, State, and local levels. A number of federal and State statutes provide a regulatory structure which guide the protection of jurisdictional waters. Agencies with the responsibility for protection of jurisdictional waters within the project site include:

- United States Army Corps of Engineers (non-wetland waters and wetlands of the United States)
- Central Coast Regional Water Quality Control Board (waters of the State)
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes)
- California Coastal Commission (coastal wetlands)

B.1 USACE Jurisdiction

The USACE, under provisions of Section 404 of the CWA and USACE implementing regulations, has jurisdiction over the placement of dredged or fill material into "waters of the United States." Congress enacted the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." In practice, the boundaries of certain waters subject to USACE jurisdiction under Section 404 have not been fully defined. Previous regulations codified in 1986 defined "waters of the United States" as traditional navigable waters, interstate waters, all other waters that could affect interstate or foreign commerce, impoundments of waters of the United States, tributaries, the territorial seas, and adjacent wetlands.

On April 21, 2020, the USACE and U.S. Environmental Protection Agency published the *Navigable Waters Protection Rule to define "Waters of the United States."* This rule, effective on June 22, 2020, defines four categories of jurisdictional waters, documents certain types of waters that are excluded from jurisdiction, and clarifies some regulatory terms. Under the *Navigable Waters Protection Rule*, "waters of the United States" include:

(1) Territorial seas and traditional navigable waters;
(2) Perennial and intermittent tributaries that contribute surface flow to those waters;
(3) Certain Lakes and ponds, and impoundments of jurisdictional waters, and;
(4) Wetlands adjacent to jurisdictional waters.

Tributaries are defined as "a river, stream, or similar naturally occurring surface water channel that contributes surface water flow to the territorial seas or traditional navigable waters in a typical year either directly or through one or more tributaries, jurisdictional lakes, ponds, and impoundments of jurisdictional waters, or adjacent wetlands." The tributary category also includes a ditch that "either relocates a tributary, is constructed in a tributary, or is constructed in an adjacent wetland as long as the ditch is perennial or intermittent and contributes surface water flow to a traditional navigable water or territorial sea in a typical year."

Adjacent wetlands are defined as wetlands that:

(i) Abut, meaning to touch at least at one point or side of, a defined Water of the U.S.;
(ii) Are inundated by flooding from a defined Water of the U.S in a typical year;
(iii) Are physically separated from a defined Water of the U.S. by a natural berm, bank, dune, or similar natural features or by artificial dike, barrier or similar artificial

structures as long as direct hydrological surface connection to defined Waters of the U.S. are allowed; or,

(iv) Are impounded of Waters of the U.S. in a typical year through a culvert, flood or tide gate, pump or similar artificial structure.

The Navigable Waters Protection Rule states that the following areas are not considered to be jurisdictional waters even where they otherwise meet the definitions described above:

(1) Groundwater, including groundwater drained through subsurface drainage systems;
(2) Ephemeral features that flow only in direct response to precipitation including ephemeral streams, swales, gullies, rills and pools;
(3) Diffuse stormwater runoff and directional sheet flow over uplands;
(4) Ditches that are not defined Waters of the U.S. and not constructed in adjacent wetlands subject to certain limitations;
(5) Prior converted cropland;
(6) Artificially irrigated areas that would revert to upland if artificial irrigation ceases;
(7) Artificial lakes and ponds that are not jurisdictional impoundments and that are constructed or excavated in upland or non-jurisdictional waters;
(8) Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;
(9) Stormwater control features constructed or excavated in uplands or in non-jurisdictional water to convey, treat, infiltrate, or stormwater run-off;
(10) Groundwater recharge, water reuse, and wastewater recycling structures constructed or excavated in upland or in non-jurisdictional waters; and,
(11) Waste treatment systems.

USACE jurisdictional limits are typically identified by the OHWM or the landward edge of adjacent wetlands (where present). The OHWM is the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area" (33 CFR 328.3).

B.2 Wetland Waters of the U.S.

The USACE defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3). The USACE's delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

Hydrophytic Vegetation

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exerts a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurring in wetlands. More than fifty percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE published the National Wetland Plant List (Lichvar, 2016), which separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands
- **Facultative (FAC).** Occur in wetlands or non-wetlands
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the United States Fish and Wildlife Service's list is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5% vegetative cover to be considered as a vegetated wetland.

Hydric Soils

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

Wetland Hydrology

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

B.3 RWQCB Jurisdiction

The State Water Resources Control Board (SWRCB) and local Regional Water Quality Control Board (RWQCB) have jurisdiction over "waters of the State," which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state.

The SWRCB or local RWQCB have not established regulations for field determinations of waters of the state except for wetlands currently. The RWQCB are affected by or shares USACE jurisdiction unless isolated conditions or ephemeral waters are present. Each local RWQCB may delineate their jurisdictions of waters of the state differently based on current interpretations of jurisdiction.

Procedures for defining RWQCB jurisdiction pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020.The SWRCB define an area as wetland if, under normal circumstances:

(i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;

(ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and
(iii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020) states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

B.4 Porter-Cologne Water Quality Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 *et seq*.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine Regional Water Quality Control Boards (based on hydrogeologic barriers) and the State Water Resources Control Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Resources Control Board provides program guidance and oversight, allocates funds, and reviews Regional Water Quality Control Boards' decisions. In addition, the State Water Resources Control Board allocates rights to the use of surface water. The Regional Water Quality Control Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Resources Control Board and Regional Water Quality Control Boards have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

B.5 CDFW Jurisdiction

The CDFW has not defined the term "stream" for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. Considering this, four sources of information were reviewed and considered in determining the appropriate limits of CDFW jurisdiction within the site, as discussed below. The principles presented in these materials were used to guide the delineation of on-site streams, with consideration given to the relevance (i.e., jurisdiction, applicability) of each source to the project and resources at hand.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References "river," "stream," and "lake"
  - References "natural flow"
  - References "bed," "bank," and "channel"
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987), which interpreted Section 1602's use of "stream" to be as defined in common law. The Court indicated that a "stream" is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM
- **CDFW regulations** define "stream" for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life
  - Can be dry for a period of time
  - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, including A Field Guide to Lake and Streambed Alteration Agreements (CDFG 1994) and Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife

  - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
  - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied in desert environments. Coastal drainages are delineated predominately based on the following factors:

- Areas that exhibited evidence of hydrologic activity, such as scour, formation of banks, and/or deposition of sediment or material
- Areas where the vegetation community was adapted to the presence of elevated soil moisture levels (i.e., contained mostly hydrophytic species).

APPENDIX C SITE PHOTOGRAPHS

Photograph 1. Los Angeles River, facing north.

Photograph 2. Los Angeles River, facing northwest.

Photograph 3. Los Angeles River, facing south.

Photograph 4. Low flow channel within Los Angeles River, facing northeast.

Photograph 5. Rio Hondo, facing west.

Photograph 6. Rio Hondo, facing south.

Photograph 7. San Gabriel River, facing northeast.

Photograph 8. Low flow channel within San Gabriel River, facing south.