State Route 1 (SR-1/Lincoln Boulevard) Multimodal Improvements Project

Along SR-1/Lincoln Boulevard Between Jefferson Boulevard and Fiji Way
in the City and County of Los Angeles
District 07-LA-001, (PM 30.16/30.74)
EA 07-33880--EFIS No. 0717000061
SCH No. 2018031048

Draft Environmental Impact Report/ Environmental Assessment

Prepared by the State of California Department of Transportation and the City of Los Angeles

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

Caltrans

May 2024

General Information about This Document

What's in this document:

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Draft Environmental Impact Report/Environmental Assessment (EIR/EA) to examine the potential environmental impacts of the alternatives being considered for the State Route 1 (SR-1/Lincoln Boulevard) Multimodal Improvements Project (hereinafter referred to as the "Project") in the City and Los Angeles County, California. Caltrans is the lead agency under both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). This Draft EIR/EA tells you why the Project is being proposed, what alternatives have been considered for the Project, how the existing environment could be affected by the Project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and mitigation measures.

What you should do:

- **Please read this document.**
  - This Draft EIR/EA is available at the Caltrans District 7 office at 100 S. Main Street in Los Angeles, California and during the public review period at the locations listed below:
    - Lloyd Taber-Marina del Rey Library:
      - 4533 Admiralty Way, Marina Del Rey, California 90292
    - Los Angeles Department of Transportation, West Los Angeles and Coastal Planning Development Review:
      - 7166 West Manchester Avenue, Los Angeles, California 90045
    - Also, this Draft EIR/EA can be downloaded at the following website:
      - https://dot.ca.gov/caltrans-near-me/district-7/district-7-programs/d7-environmental-docs
  - **Attend the Open House Meeting**.
    - An open house meeting will be held as detailed below:
      - Meeting Date: **Thursday, May 23 from 6:00 pm to 8:00 pm.**
      - Meeting Location: Council District 11 Westchester Field Office, 7166 W. Manchester Avenue, Los Angeles, CA, 90045.
      - Other Meeting Details:
        - Please come anytime between 6:00 pm and 8:00 pm since this meeting will use an open house format, so there will be no formal presentation.
        - The meeting will provide attendees with an opportunity to learn more about the Project.
        - Presentation boards will be provided for attendees to review and the project team will be available for discussion.

- **Send comments.**
  - Send comments via email to: **LincolnBlvd_Improvements_DEDComments@dot.ca.gov**.
  - Or, you can also send comments via postal mail to:

    Karl Price, Senior Environmental Scientist
    Division of Environmental Planning
    Caltrans District 7
    100 South Main Street, MS 16A
    Los Angeles, California 90012

- Be sure to submit comments by the deadline of **July 11, 2024**

What happens next:
After comments are received from the public and reviewing agencies, Caltrans, as assigned by the FHWA, may: (1) give environmental approval to the proposed Project, (2) do additional environmental studies, or (3) abandon the Project. If the Project is given environmental approval and funding is obtained, Caltrans could design and construct all or part of the Project.

Alternative Formats:
For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Kelly-Ewing Toledo, Division of Environmental Planning, 100 South Main Street, MS 16A, Los Angeles, California 90012**; 213.897.0703 (Voice), or use the California Relay Service 800.735.2929 (TTY), 800.735.2929 (Voice) or 711.**

SCH No. 2018031048
07-LA-001-PM 30.16/30.74
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State Route 1 (SR-1/Lincoln Boulevard) Multimodal Improvements Project

State Route 1/Lincoln Boulevard from Jefferson Boulevard (PM 30.16)
to just south of Fiji Way (PM 30.74)
in the City of Los Angeles, Los Angeles County

DRAFT ENVIRONMENTAL IMPACT REPORT/ DRAFT ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C) and 23 U.S. Code 327 and 49 U.S. Code 303

THE STATE OF CALIFORNIA
Department of Transportation
and
The City of Los Angeles

Cooperating Agencies:
US Army Corps of Engineers; United States Fish and Wildlife Service; Federal Emergency Management Agency; National Marine Fisheries Services of the National Oceanic and Atmospheric Administration.

Responsible and Trustee Agencies:
City of Los Angeles; Los Angeles County; California Department of Fish and Wildlife; California Coastal Commission; State Water Resources Control Board; Los Angeles Regional Water Quality Control Board; South Coast Air Quality Management District; California Transportation Commission; California State Lands Commission.

______________________ Date	______________________ Kelly Ewing-Toledo Deputy District Director California Department of Transportation NEPA Lead Agency
______________________ Date	______________________ Kelly Ewing-Toledo Deputy District Director California Department of Transportation CEQA Lead Agency

The following person may be contacted for more information about this document:

Karl Price, Senior Environmental Scientist
Division of Environmental Planning
Caltrans, District 7

100 South Main Street, MS 16A
Los Angeles, California 90012
213.266.3822

Summary

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Draft Environmental Impact Report/Environmental Assessment (EIR/EA) to examine the potential environmental impacts of the alternatives being considered for the State Route (SR) 1/Lincoln Boulevard Multimodal Improvements Project (hereinafter referred to as the "Project") in the City and County of Los Angeles, California. Caltrans is the lead agency under both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). This Draft EIR/EA tells you why the Project is being proposed, what alternatives have been considered for the Project, how the existing environment could be affected by the Project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and mitigation measures. In addition, FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this Project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding (MOU) dated May 27, 2022, and executed by FHWA and Caltrans.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the Project as a whole, often a "lower level" document is prepared for NEPA. One of the most common joint document types is an EIR/EA.

After receiving comments from the public and reviewing agencies, a Final EIR/EA will be prepared. Caltrans may prepare additional environmental and/or engineering studies to address comments. The Final EIR/EA will include responses to comments received on the Draft EIR/EA and will identify the preferred alternative. If the decision is made to approve the Project, a Notice of Determination (NOD) will be published for compliance with CEQA, and Caltrans will decide whether to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement for compliance with NEPA. A Notice of Availability of the FONSI will be sent to the affected units of federal, State, and local government, and to the State Clearinghouse in compliance with Executive Order 12372.

S.1 NEPA Assignment

California participated in the "Surface Transportation Project Delivery Pilot Program" (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program.

As a result, Caltrans entered into a MOU pursuant to 23 USC 327 with FHWA. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on May 27, 2022, for a term of ten years. In summary, Caltrans continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and Caltrans assumed all of the United States Department of Transportation Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to Caltrans under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

S.2 Overview of the Project Area

The project site is located in western Los Angeles County along Lincoln Boulevard, which is also designated as SR-1 within the project limits. The northwestern portion of the project site is within unincorporated Los Angeles County.

The northern limit of the Project is approximately 100 feet south of the Lincoln Boulevard and Fiji Way intersection. The southern limit of the Project is the Lincoln Boulevard and Jefferson Boulevard intersection. Within the project limits, Lincoln Boulevard crosses over Ballona Creek, beneath the Culver Boulevard overcrossing, and through the Ballona Wetlands Ecological Reserve (BWER).

Lincoln Boulevard is a major route traveling northwest to southeast on the Westside of Los Angeles County, connecting major destinations including the City of Santa Monica to the north, and Loyola Marymount University, Otis College of Art and Design and Los Angeles International Airport to the south. The project segment provides a critical and heavily traveled connection between and amongst the communities of Playa Del Rey, Playa Vista, Westchester, and El Segundo in the south and Marina Del Rey, Del Rey, Venice, Culver City, Mar Vista, and Santa Monica in the north.

Lincoln Boulevard is classified in the City of Los Angeles General Plan as a Boulevard I (Major Highway Class I) and is comprised of three to four lanes in the northbound direction and two to three lanes in the southbound direction within the project limits. Culver Boulevard is classified as an Avenue I (Major Highway Class II) and Avenue III (Modified Scenic) and is comprised of one lane in each direction in the vicinity of Lincoln Boulevard. Jefferson Boulevard is a Boulevard II (Major Highway Class I) and is comprised of two lanes in each direction; Fiji Way is a Local street, comprised of one lane in each direction near the Project.

A separate action that is proposed in the vicinity of the Project is the Ballona Wetlands Restoration Project, which is being led by the California Department of Fish and Wildlife (CDFW). Also, Caltrans is implementing a pavement rehabilitation project north, south, and within the project site along Lincoln Boulevard. A full list of cumulative projects within a half-mile of the project site are provided in Table 2.0-1, Cumulative Projects Within a Half-Mile of the project site.

S.3 Purpose and Need

1.3.1 Purpose

The purpose of this Project is to create a new multi-modal corridor along SR-1/Lincoln Boulevard between Fiji Way and Jefferson Boulevard to improve traffic operations and to serve transit, bicyclists, and pedestrians while minimizing impacts to Ballona Wetlands Reserve, Ballona Creek, and other environmental resources.

1.3.2 Need

Lincoln Boulevard serves as a critical north-south connection on the Westside. There are few arterial connections that provide continuous access through the Westside, which results in Lincoln Boulevard being oversaturated during peak commute periods. Lincoln Boulevard narrows from three to two lanes in the southbound direction, approximately 1,050 feet north of the existing Lincoln Boulevard Bridge over Ballona Creek, and from four to three lanes in the northbound direction, approximately 320 feet north of the intersection with Jefferson Boulevard, to the intersection with Fiji Way. These lane reductions create a major bottleneck.

The average vehicle travel speeds along Lincoln Boulevard are 15 miles per hour (mph) during peak periods when measured between Ozone Ave in the City of Santa Monica and Sepulveda Boulevard while the design speed is 50 mph. Travel times are greatly impacted by bottlenecks resulting in slower speeds along much of the corridor.

In addition, access for pedestrians along Lincoln Boulevard is disjointed north and south of the Ballona Creek bridge, which does not have sidewalks. Lincoln Boulevard also lacks bicycle facilities across the bridge. Pedestrian and bicycle facilities are also deficient along Culver Boulevard.

S.4 Proposed Project

Caltrans, in cooperation with the City of Los Angeles, proposes to improve circulation and safety along Lincoln Boulevard by constructing an additional southbound lane, installing sidewalks and protected bicycle lanes, and implementing complete streets and other related improvements along an approximate 0.61-mile segment of Lincoln Boulevard between Jefferson Boulevard

(PM 30.16) and just south of Fiji Way (PM 30.74). The Project primarily occurs in the City of Los Angeles, with potential temporary construction easements and partial right-of-way acquisitions needed in the north and northwest within parcels that are located within unincorporated Los Angeles County.

The alternatives analyzed in this Draft EIR/EA are summarized below. More informtaion is provided in Chapter 1, Proposed Project.

Alternative 1 – No Build Alternative

Alternative 1 is the No Build Alternative. Alternative 1 would involve the continued maintenance and operation of Lincoln Boulevard and Culver Boulevard within the project site in their existing configurations. Alternative 1 would maintain operation of the existing Lincoln Boulevard bridge over Ballona Creek and the existing Culver Boulevard bridge over Lincoln Boulevard.

Alternative 1 would not provide any multimodal or public access improvements to Lincoln Boulevard or Culver Boulevard within the project site, nor would any of the water quality best management practices be implemented that are proposed for the Project. Alternative 1 would not require the replacement of the Lincoln Boulevard Bridge over Ballona Creek; therefore, the bridge would not be reconstructed taller to accommodate anticipated sea level rise. Also, under Alternative 1, the Culver Boulevard bridge over Lincoln Boulevard would not be replaced, nor would any temporary or permanent effects to vegetation/communities/parcels be required. Alternative 1 would not reconstruct the transportation facilities within the project site consistent with future transit improvements planned along Lincoln Boulevard, which would leave the potential for future effects to adjacent parcels, including the BWER, when the future transit project is built.

Alternative 2 – Base Alternative

Alternative 2 includes the realignment of the Lincoln Boulevard centerline approximately 50 feet to the east; the addition of one southbound lane along Lincoln Boulevard for a length of approximately 1,800 feet; demolition, replacement, and widening of the existing Lincoln Boulevard Bridge over Ballona Creek; demolition, replacement, and widening of the existing Culver Boulevard Bridge over Lincoln Boulevard; demolition, replacement, and realignment of the existing connector ramps between Lincoln Boulevard and Culver Boulevard; and construction of active transportation improvements including sidewalks and Class IV protected bicycle lanes on both sides of Lincoln Boulevard. Alternative 2 would also include utility relocation, landscaping, low-intensity street lighting, striping, signage, drainage, and water quality improvements. Alternative 2 would involve acquisition of right-of-way and temporary construction easements, primarily within the BWER. Also, Alternative 2 would require detours of Culver Boulevard and the Ballona Creek Bike Path temporarily during construction. Alternative 2 would install a striped center median that would allow space (130-feet) to accommodate a future center-running transit facility within the project site, which is not included as part of Alternative 2. Construction of Alternative 2 would result in three through lanes in the northbound and southbound directions of Lincoln Boulevard between Fiji Way and Jefferson Boulevard, with left turn lanes at the intersections of Jefferson Boulevard, Culver Loop and Fiji Way. The project design for Alternative 2 is shown in Figure 1-3. A full description of Alternative 2 and the construction methods that would be required are provided in Chapter 1, Proposed Project.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of Lincoln Boulevard North of the Culver Boulevard Bridge

Alternative 2A would be the same as Alternative 2 with the addition of a retaining wall along a portion of the west side of Lincoln Boulevard north of the Culver Boulevard Bridge along the entire stretch of where temporary construction easements would be required under Alternative 2. This design variation would require a 450-foot-long retaining wall ranging from approximately four feet to eight feet in height along the west side of Lincoln Boulevard. The retaining wall would avoid approximately 0.65 acres of temporary construction easements within the BWER on the west side of Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. The amount of permanent acquisitions would remain the same as Alternative 2.

Alternative 2B– Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Alternative 2B would be the same as Alternative 2 with the exception that it would incorporate cantilevered sidewalks on both sides of Lincoln Boulevard above Fiji Ditch. In contrast, Alternative 2 would include a standard widening that would extend the existing culverts on both sides of the road to add the sidwalks, which would result in temporary and permanent effects to Fiji Ditch. On both sides of Lincoln Boulevard at Fiji Ditch, cantilevered sidewalks would be built using structures that would protrude out horizontally from the existing roadway, supported on only one end. The cantilevered approach that would be implemented under Alternative 2B would be built from the edge of the future roadway deck and would not require footings or other temporary or permanent effects to Fiji Ditch. Alternative 2B would avoid approximately 403 square feet of temporary construction easements and approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements and approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is Los

Angeles County Flood Control District-owned land on the east side of Lincoln Boulevard which contains a portion of Fiji Ditch.

Alternative 2C– Design Variation C – Wider Culver Boulevard Bridge

Alternative 2C would be the same as Alternative 2 with the exception that it would include a wider Culver Boulevard Bridge over Lincoln Boulevard. Under Alternative 2C, the new Culver Boulevard bridge would be approximately 12-feet-wider to accommodate a two-lane bicycle/pedestrian path. As part of the Ballona Wetlands Restoration Project, CDFW plans to construct a new bridge spanning Lincoln Boulevard north of Culver Boulevard Bridge. CDFW plans to use their new bridge initially to transport earthen fill between Area A and Area C of the BWER during restoration and, later as a permanent structure to facilitate bicycle and pedestrian mobility as part of the public access plan. Alternative 2C could represent substantial cost savings for CDFW if they chose not to build their own parallel bridge. Alternative 2C would increase temporary construction easements by approximately 240 square feet and partial right-of-way acquisition by approximately 1,260 square feet within the BWER. The wider bridge under Alternative 2C would be designed to accommodate the weight of the earth moving equipment that CDFW anticipates needing to transfer across the bridge (e.g., belly loaders, bulldozers, backhoes, work trucks), which CDFW would need to use temporarily as part of the grading operations planned for in the Ballona Wetlands Restoration Project. Then, the City would convert this area along the bring to be a 12-foot-wide, two-lane bicycle/pedestrian path. This would be similar to what is called for in the Ballona Wetlands Restoration Project at this location. The proposed 12-foot path would be 8-feet narrower than the 20-foot-wide path that CDFW notes in their restoration plan for just north of this location, but CDFW would not have to pay for or maintain the bridge. As there would be no separate bicycle and pedestrian facilities, bicyclists and pedestrians would jointly utilize the two-lane, 12-foot path along the bridge under Alternative 2C, in contrast to the separated and buffered bicycle and pedestrian paths that are shown in CDFW's Ballona Wetlands Restoration Project public access and trails documentation. The path would be separated from traffic by a concrete barrier that would be approximately 32-inches-high and 24-inches-wide. Until CDFW builds their planned public trails on both sides of Lincoln Boulevard north of Culver Boulevard within the BWER, this northern area of the new Culver Boulevard bridge would be fenced, closed to the public, and utilized only for Caltrans/City maintenance of the bridge facility or for other CDFW-authorized uses.

Alternative 2D– Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of Lincoln Boulevard

Alternative 2D would be the same as Alternative 2 with the exception that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would provide enhanced connectivity and could mostly be constructed within the current temporary and permanent impact footprints identified for Alternative 2. However, Alternative 2D would require additional grading and permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900 that would not be constructed under Alternative 2, which is a part of the BWER. If Alternative 2D were to be implemented, approximately 840 square feet of additional permanent right-of-way would be required from APN 4211-015-900. Under Alternative 2D, the City would own and manage the entire ramp. Partial acquisition areas from the BWER would be compensated for in the same manner and at the same rate as is specified for Alternative 2.

Project Impacts

Table S.1 provides a comparison of the impacts associated with the project alternatives.

Table S-1 – Project Impact Summary Table

S.5 Coordination with Public and Other Agencies

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and level of analysis required, and to identify potential impacts, mitigation measures, and related environmental requirements. Agency consultation and public participation for this Project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings, meetings with city staff members, meetings with other organizations or groups, interagency coordination meetings, a public scoping meeting, and public announcements placed in local newspapers, the Federal Register, at the County Clerk’s office, and in public libraries.

Chapter 4, Comments and Coordination, includes a complete discussion of pertinent coordination that has occurred related to the Project to date.

In compliance with 23 USC 139, Caltrans provided an opportunity for public and interagency involvement, followed by agency participation in the definition of the Project’s purpose and need. Caltrans utilized the 23 USC 139 guidance to establish a plan to continue providing opportunities for public involvement, as well as closely working with participating and cooperating agencies.

The following outreach and coordination activities have occurred for this Project.

- Sent Public Notifications Announcing Scoping Period was from March 15 to April 16, 2018
- Public Scoping Meeting was held on March 28, 2018
- Monthly PDT Meetings were held intermittently from 2018 through 2023
- Focused Meetings with Public Agencies and Stakeholder Groups, including:
    - California Department of Fish and Wildlife (CDFW);
    - California Coastal Commission;
    - Los Angeles County Department of Public Works – Bikeways Unit;
    - Los Angeles County Department of Beaches and Harbors;and the
    - Transportation Conformity Working Group (TCWG).

- Circulation of this Draft EIR/EA for Public Review
    - Notice in Newspaper, at County Clerk, Direct mailing of notices to owners/occupants nearby.
    - 65-day public review period[1]
    - Public Hearing

S.6 Unresolved Issues and Areas of Controversy

At this time, unresolved areas of controversy for this Project include:

- **The Project's short-term and long-term effects to biological resources**. Mitigation measures have been included in this Draft EIR/EA that set the minimum requirements for the mitigation of Project effects to biological resources. However, requirements for biological monitoring and compensation would be further refined with the resource agencies during the regulatory permitting process.
- **The Project's consistency with land use plans, programs, and policies including the Coastal Act and the Ballona Wetlands Restoration Project**. Mitigation measures have been included for the Project to ensure ongoing coordination with California Coastal Commission and CDFW to ensure consistency with the Coastal Act, Ballona Wetlands Restoration Project, and other applicable policies to the maximum extent feasible. Also, addiitional consistency analysis will be conducted by the California Coastal Commission staff during final design in their evaluation of whether to support issuance of a Coastal Development Permit (CDP) for the Project.
- **The Project's potential for effects to cultural and tribal cultural resource**. Mitigation measures have been included in this Draft EIR/EA that require archaeological and tribal monitoring during construction, which will minimize effects related to this topic.
- **The Project's effects related to hydrology, water quality, and sea level rise**. The Project's alternatives have been designed to accommodate anticipated sea level rise. Also, mitigation measures have been included in this Draft EIR/EA that require the treatment of stormwater during construction and operation of the Project which would result in cleaner stormwater conditions.

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[1] Caltrans and the City decided upon a 65-day public review period for the Draft EIR/EA, which is 20 days more than the standard 45 calendar day public review period that is mandated for a Draft EIR/EA. The additional 20 days was provided to allow interested parties with additional time to review the Draft EIR/EA and appendices and to provide their comments.

- **The Project's noise effects and whether a noise barrier would be built.** The noise barrier has been determined to be reasonable and feasible from a design perspective. During final design, Caltrans and the City shall coordinate with the property owner of the Fountain Park Apartments and residents of units that would be benefitted by the potential noise barrier to determine whether they actually want the noise barrier to be built as part of the project.
    - For noise purposes, this Draft EIR/EA assumes a worst case scenario for the purposes of noise analysis that the noise barrier would not be constructed and operational noise levels would be slightly higher than in existing conditions.
    - For aesthetic purposes, this Draft EIR/EA assumes a worst case scenario for visual resources that the noise barrier would be constructed and certain views would be obstructed.
- **Project effects related to recreation, including acquisition of portions of the BWER and whether a land exchange will be implemented.** The PDT has developed a conceptual land exchange that would involve the exchange of 1.17-acres of City-owned land adjacent to the BWER for the 1.17-acres of land along SR-1/Lincoln Boulevard that is needed to accommodate the Project. This land exchange concept was vetted with CDFW during email correspondence and during meetings with the CDFW reserve manager and various other CDFW staff members. CDFW staff generally seemed favorable to the idea of a land exchange, and no critical flaws in the idea have been raised to date. Throughout the coordination process between the PDT and CDFW, additional information was provided to CDFW related to the existing disposition of the lands to be impacted and the lands proposed for exchange. The PDT and CDFW also discussed the main steps that will be required by CDFW to allow for the land exchange to occur. A land exchange would require several approvals by CDFW such as approval of a transfer of jurisdiction that would need to be approved by the Wildlife Conservation Board and/or the Fish and Game Commission. Mitigation measures have been included in this Draft EIR/EA that require ongoing coordination with CDFW during final design of the Project to implement a land exchange, if feasible.
    - For recreational purposes, this Draft EIR/EA assumes a worst case scenario for recreational resources that 1.17-acres of the BWER would be acquired through imminent domain to implement the Project in case CDFW approval of the land exchange cannot be obtained.

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APPENDICES

TABLES

FIGURES

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is also the lead agency under the California Environmental Quality Act (CEQA).

Caltrans proposes to implement multimodal improvements along Lincoln Boulevard, which is also designated as State Route 1 (SR-1), between Jefferson Boulevard and just south of Fiji Way in the City and County of Los Angeles. Project location and vicinity maps are provided as Figures 1-1 and 1-2.

SR-1/Lincoln Boulevard is a major route traveling northwest to southeast on the Westside of Los Angeles County (Westside), connecting major destinations including the City of Santa Monica to the north, and Loyola Marymount University, Otis College of Art and Design and Los Angeles International Airport to the south. The stretch of SR-1/Lincoln Boulevard within the project site provides a critical and heavily traveled connection between and amongst the communities of Playa Del Rey, Playa Vista, Westchester, and El Segundo in the south and Marina Del Rey, Del Rey, Venice, Culver City, Mar Vista, and Santa Monica in the north.

SR-1/Lincoln Boulevard is classified in the City of Los Angeles General Plan as a Boulevard I (Major Highway Class I) and is comprised of three to four lanes in the northbound direction and two to three lanes in the southbound direction within the project site. Culver Boulevard is classified as an Avenue I (Major Highway Class II) and Avenue III (Modified Scenic) and is comprised of one lane in each direction in the vicinity of SR-1/Lincoln Boulevard. Within the project site, Culver Boulevard is a Boulevard II (Major Highway Class I), comprised of two lanes in each direction; Fiji Way is a Local street, comprised of one lane in each direction north of the project site.

Caltrans' and the City's Locally Preferred Alternative for this Project, herein referred to as "Alternative 2", includes the following: realignment of the SR-1/Lincoln Boulevard centerline approximately 50 feet to the east of the existing SR-1/Lincoln Boulevard Bridge; addition of one southbound lane along SR-1/Lincoln Boulevard for a length of approximately 1,800 feet; demolition, replacement, and widening of the SR-1/Lincoln Boulevard Bridge; demolition, replacement, and widening of the Culver Boulevard Bridge over SR-1/Lincoln Boulevard; demolition, replacement, and realignment of the connector ramps between SR-1/Lincoln

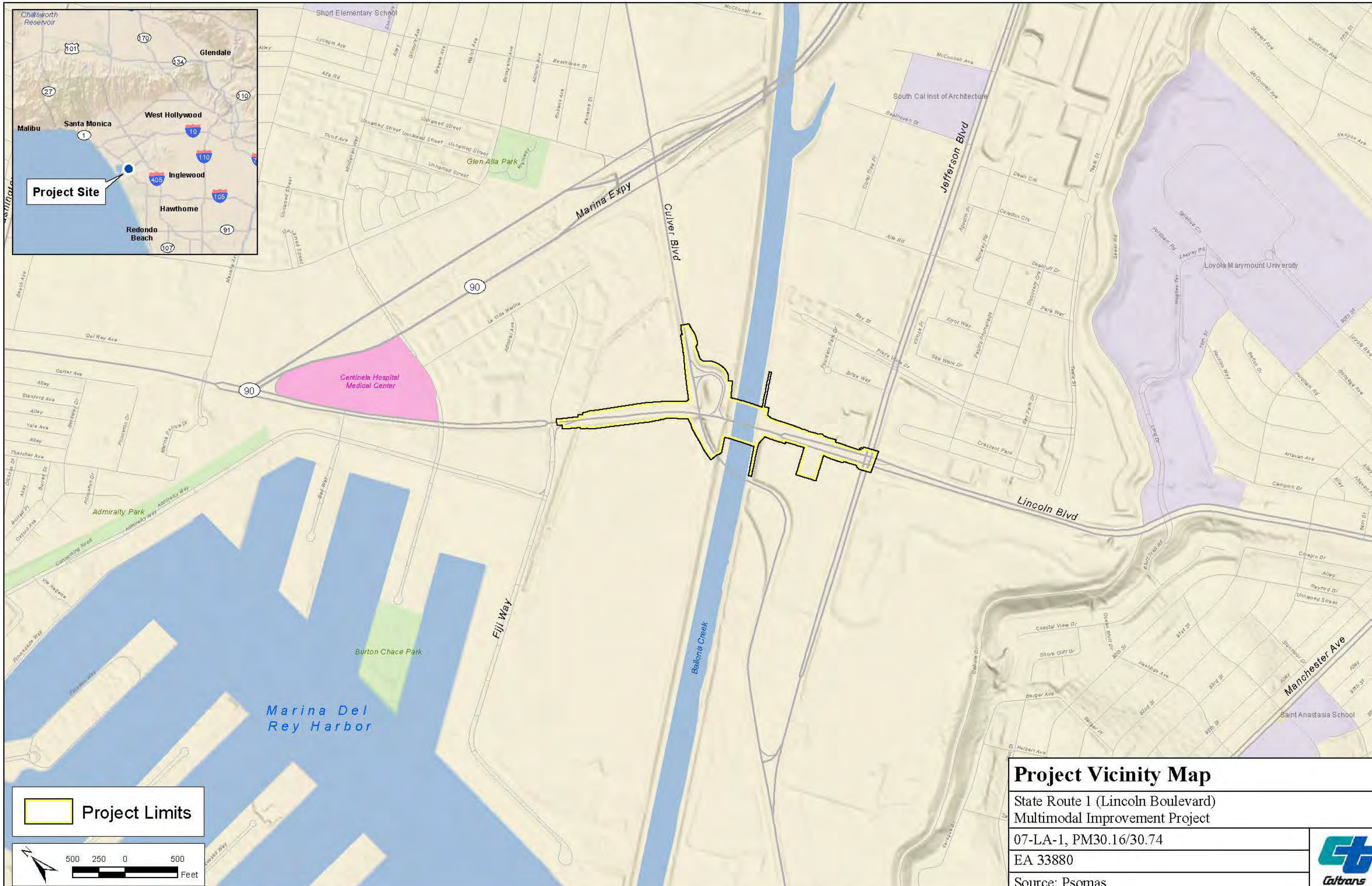

Project Vicinity Map
State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Psomas
Caltrans
Project Limits
500 250 0 500
Feet
Project Site
Chatsworth Reservoir
Glendale
Santa Monica
West Hollywood
Malibu
Inglewood
Hawthorne
Redondo Beach
Marina Del Rey Harbor
Centinela Hospital Medical Center
Marina Expy
Culver Blvd
Jefferson Blvd
Lincoln Blvd
Fiji Way
Ballona Creek
Manchester Ave
Glen Alla Park
Admiralty Park
Burton Chace Park
South Cal Inst of Architecture
Loyola Marymount University
Short Elementary School
Saint Anastasia School
Del Rey Ave

Figure 1-1

Project Location Map

State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas; Aerial: Esri, Maxar 2022

Figure 1-2

Boulevard and Culver Boulevard; and construction of active transportation improvements, including sidewalks and Class IV protected bicycle lanes, on both sides of SR-1/Lincoln Boulevard. Alternative 2 would also include utility relocation, landscaping, low-intensity street lighting, striping, signage, drainage, and water quality improvements. Alternative 2 would install a striped center median that would allow space to accommodate a future center-running transit facility within the project site, which is not included as part of Alternative 2. Construction of Alternative 2 would result in three through lanes in the northbound and southbound directions of SR-1/Lincoln Boulevard between Fiji Way and Jefferson Boulevard, with additional turning lanes at Culver Loop.

1.1.1 Past Improvement Efforts

A separate road widening project was previously proposed by Caltrans with similar project limits, and an Initial Study/ Environmental Assessment (IS/EA) was circulated for that project in 2001. The California Coastal Commission denied that project a Coastal Development Permit and the project lost its funding. A comparison of the 2001 project and Alternative 2 is provided below in Chapter 1.4.2, Alternative 2 – Build Alternative.

The City of Los Angeles' Coastal Transportation Corridor Specific Plan (CTCSP), originally adopted in 1993, describes specific transportation infrastructure improvements and establishes funding mechanisms and regulatory contracts for the area of the City of Los Angeles generally bounded by the Santa Monica boundary to the north, the El Segundo boundary to the south, the Pacific Ocean to the west, and the San Diego Freeway to the east. Preliminary design concepts for the overall Project were developed as part of the City of Los Angeles' Westside Mobility Plan, adopted in 2018, which consisted of comprehensive updates to the City's Coastal Transportation Corridor Specific Plan and West LA Transportation Specific Plan (City of Los Angeles 2019a). Within the project site, the CTCSP improvement list of projects contained in City of Los Angeles Ordinance 186105, dated April 4, 2019, includes widening of SR-1/Lincoln Boulevard to provide an additional southbound travel lane for vehicles, bus-only lanes in the median, cycle tracks on both sides of the roadway, and sidewalks on both sides of the street. More information on consistency with the CTCSP, Westside Mobility Plan, and other plans and policies and the current Project is provided in Chapter 2.1.2.2.4 of this Draft EIR/EA.

Route 1, as a State highway, is a part of the Los Angeles County Metropolitan Transportation Authority's Congestion Management Program regional highway system.

1.1.2 FTIP and RTP/SCS Project Listings

The Project has been included in and is consistent with the 2023 Federal Transportation Improvement Program (FTIP), which is the latest FTIP adopted by SCAG (SCAG 2022b). The

Project is identified therein as FTIP ID LA0G1714. The Project was added as part of FTIP Amendment 23-00.

The Project is also included in the Southern California Association of Governments (SCAG) Connect SoCal 2024 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The Project is listed as RTP ID ####. The listing within the draft 2024 RTP/SCS is consistent with the current scope of improvements and project limits for Alternative 2.

Both the FTIP and RTP listings can be found in Appendix C.

More information on this topic is provided within Chapter 2.1.2, Consistency with Plans and Programs.

1.1.3 Existing Facility

Overview of Existing Deficiencies

SR-1/Lincoln Boulevard does not contain bicycle lanes or continuous sidewalks within the project site. In existing conditions pedestrians and bicyclists must use the shoulder of the road to access the Ballona Creek Bike Trail that bisects the project site. Also, there is a southbound lane drop on SR-1/Lincoln Boulevard where the vehicular travel lanes reduce from three lanes to two lanes in the southbound direction resulting in a bottleneck.

Existing SR-1/Lincoln Boulevard Roadway

The existing SR-1/Lincoln Boulevard right-of-way way width between Jefferson Boulevard and Fiji Way varies from 100 feet to 159 feet. SR-1/Lincoln Boulevard is designated by Caltrans as a Conventional highway with a posted speed limit of 45 miles per hour (mph). The existing lane configuration of SR-1/Lincoln Boulevard at the intersection with Jefferson Boulevard provides four northbound through lanes and three southbound through lanes, separated by a striped median that varies in width between 24 feet and 0 feet. Approximately 600 feet north of the intersection, SR-1/Lincoln Boulevard narrows to three northbound lanes and two southbound lanes. A 5-foot-wide sidewalk exists in the northbound direction between Jefferson Boulevard and the Ballona Creek bridge where it terminates. There is no existing sidewalk in the southbound direction. A Class III Bike Route is located on the northbound direction of SR-1/Lincoln Boulevard. There are no designated bike facilities in the southbound direction of travel.

Existing SR-1/Lincoln Boulevard Bridge Over Ballona Creek

The existing SR-1/Lincoln Boulevard Bridge over Ballona Creek (Bridge Number 53-0118) was originally constructed in 1937. A seismic retrofit of the bridge was completed in 1994. The existing bridge is approximately 334.5 feet long and 69 feet wide with span lengths varying from 77 feet, 3 inches to 90 feet. The existing SR-1/Lincoln Boulevard Bridge over Ballona Creek provides three northbound through lanes and two southbound through lanes; there are no existing sidewalks. Approximately 150 feet north of the Culver Boulevard Bridge overcrossing, SR-1/Lincoln Boulevard begins to widen as it approaches the Fiji Way intersection. The south leg of the SR-1/Lincoln Boulevard and Fiji Way intersection provides three northbound through lanes, two left turn lanes, and four southbound through lanes that taper to two lanes as they approach the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek. The deck concrete was cast on top of steel plate girders spanning between girders and is continuous over the piers. The bridge superstructure is supported on reinforced concrete pier walls that are spaced approximately 90 feet apart, with a width varying from 3.25 to 4.50 feet, and open end seat type abutments. All abutments and piers are supported on vertical driven treated timber piles (CNS 2023a).

Existing Culver Boulevard Roadway

The existing lane configuration along Culver Boulevard west of SR-1/Lincoln Boulevard provides one lane in each direction. The existing lane configuration east of SR-1/Lincoln Boulevard provides one lane in the westbound direction and two lanes in the eastbound direction. The existing roadway width along Culver Boulevard is approximately 40 feet. There are also 1-foot-wide concrete rails on each side of the structure.

Existing Culver Boulevard Bridge

The existing three-span Culver Boulevard Bridge was constructed in 1937 (Bridge No. 53-0089) and is located approximately 300 feet north of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek. The existing superstructure of the bridge consists of two spans (Spans 1 and 3) of Reinforced Concrete “T-Beam” girders and one span (Span 2) of riveted steel plate girders supporting a cast-in-place concrete deck. Expansion joints are provided at Bent 2 and Bent 3. The structure is skewed at approximately 17 degrees with the centerline of SR-1/Lincoln Boulevard. The bridge superstructure is supported on reinforced concrete bents and strutted abutments founded on vertical driven treated timber piles. Abutment and bent foundation are laterally braced by reinforced concrete struts.

A one-lane ramp provides a connection from northbound SR-1/Lincoln Boulevard to eastbound Culver Boulevard. A two-lane ramp provides a connection from east and westbound Culver Drive to north and southbound SR-1/Lincoln Boulevard. There are no sidewalks along the ramps in existing conditions.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of this Project is to create a new multi-modal corridor along SR-1/Lincoln Boulevard between Fiji Way and Jefferson Boulevard to improve traffic operations and to serve transit, bicyclists and pedestrians while minimizing effects to the Ballona Wetlands Ecological Reserve (BWER), Ballona Creek, and other environmental resources.

1.2.2 Need

SR-1/Lincoln Boulevard serves as a critical north-south connection on the Westside. There are few arterial connections that provide continuous access through the Westside, which results in SR-1/Lincoln Boulevard being oversaturated during peak commute periods. SR-1/Lincoln Boulevard narrows from three to two lanes in the southbound direction, approximately 1,050 feet north of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek, and from four to three lanes in the northbound direction, approximately 320 feet north of the intersection with Jefferson Boulevard, to the intersection with Fiji Way. These existing lane reductions create a major traffic operations bottleneck.

The average vehicle travel speeds along SR-1/Lincoln Boulevard are 15 mph during peak periods when measured between Ozone Ave in the City of Santa Monica and Sepulveda Boulevard while the existing design speed is 50 mph. Travel times are greatly affected by bottlenecks resulting in slower speeds along much of the corridor.

Additionally, access for pedestrians along SR-1/Lincoln Boulevard is disjointed north and south of the SR-1/Lincoln Boulevard Bridge over Ballona Creek which does not have sidewalks. SR-1/Lincoln Boulevard also lacks bicycle facilities across the bridge. Pedestrian and bicycle facilities are also deficient along Culver Boulevard.

1.3 Independent Utility and Logical Termini

FHWA regulations (23 Code of Federal Regulations [CFR 771.111(f)]) require that this undertaking connects logical termini and is of sufficient length to address environmental matters on a broad scope. Further, 23 CFR 771.111(f) stipulates that a project must have independent utility or independent significance in that it is usable and a reasonable expenditure of funds even if no additional transportation improvements are made in the area. Lastly, it stipulates that a project must not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

The Project is a standalone project intended to improve mobility along SR-1/Lincoln Boulevard within the project site. The Project is independent of other Caltrans projects on SR-1/Lincoln Boulevard and its Purpose and Need cannot be fulfilled by any other project. The Project is also independent of, but coordinated with, the adjacent Ballona Wetlands Restoration Project. Furthermore, although the Project is being built to accommodate other reasonably foreseeable projects along the corridor, the Project is in no way dependent on the implementation of other projects on SR-1/Lincoln Boulevard, prior to or subsequent to this proposed undertaking, to have independent utility. This Draft EIR/EA provides analysis of the entire project site containing all of the project alternative evaluated, and is in no way dependent on the environmental document, mitigation proposals, or implementation of any other project(s). Lastly, the Project does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements. Based on the aforementioned, and pursuant to 23 CFR 771.11(f), this Project has independent utility and logical termini.

The Project's alternatives have been designed using the latest public information available related to CDFW's current and future plans for the BWER. Coordination and meetings amongst the Project Development Team[2] (PDT) and CDFW occurred throughout the Project's preliminary design process as described more in Chapter 4, Comments and Coordination. The main objectives of these meetings were to: review the preliminary Project design; discuss Project partial right-of-way and temporary construction easements needed from the BWER; discuss potential land exchange ideas using City-owned land adjacent to the BWER; and for the PDT to get a general understanding of the CDFW process for exchanging lands. The Project's alternatives have been designed specifically to compliment the Ballona Wetlands Restoration Project; however, none of the alternatives evaluated in this Draft EIR/EA rely upon CDFW implementation of any phases of their Ballona Wetlands Restoration Project to maintain their independent function and utility.

The Project's alternatives have also been designed based on the minimum cross-section and cross-slope that would be required to implement the Bus Rapid Transit and Light Rail Transit transit options that were included in the Los Angeles Metro 2020 Long Range Transportation Plan and that were evaluated in greater depth in the Lincoln Bridge Feasibility Study (Metro 2020a, STV and Fehr & Peers 2013a). These future transit projects are also included within SCAG's 2024 RTP/SCS (SCAG2024a). As the Project Proponent, the City of Los Angeles

[2] The Project Development Team (PDT) is composed of staff from Caltrans, the City of Los Angeles Department of Transportation, and Psomas, the primary civil and environmental consultant working on this Project.

Department of Transportation staff have remained in contact with Los Angeles Metro regarding the Project.

1.4 Project Description and Alternatives

This section of the chapter describes the proposed action and the Project alternatives developed to meet the Purpose and Need of the Project, while avoiding or minimizing environmental effects. Information contained in this chapter related to the Project is largely derived from the Project's Draft Project Report (Psomas 2023a). The Project alternatives evaluated in this Draft EIR/EA are described below.

The Project is located in the City and County of Los Angeles on SR-1/Lincoln Boulevard between Jefferson Boulevard (PM 30.16) and just south of Fiji Way (PM 30.74). The total length of the Project is approximately 0.61-mile long. Within the project site, SR-1/Lincoln Boulevard has two- to three-lanes in the southbound direction and three lanes in the northbound direction with no designated bicycle lanes or lane buffers and limited, disconnected sidewalks.

1.4.1 Alternative 1 – No Build Alternative

Alternative 1 is the No Build Alternative. Alternative 1 would involve the continued maintenance and operation of SR-1/Lincoln Boulevard and Culver Boulevard within the project site in their existing configurations. Alternative 1 would maintain operation of the existing SR-1/Lincoln Boulevard bridge over Ballona Creek and the existing Culver Boulevard bridge over SR-1/Lincoln Boulevard.

Alternative 1 would not provide any multimodal or public access improvements to SR-1/Lincoln Boulevard or Culver Boulevard within the project site, nor would any of the water quality best management practices be implemented that are proposed for the Project. Alternative 1 would not require the replacement of the SR-1/Lincoln Boulevard Bridge over Ballona Creek; therefore, the bridge would not be reconstructed taller to accommodate anticipated sea level rise. Also, under Alternative 1, the Culver Boulevard bridge over SR-1/Lincoln Boulevard would not be replaced, nor would any temporary or permanent effects to vegetation/communities/parcels be required. Alternative 1 would not reconstruct the transportation facilities within the project site consistent with future transit improvements planned along SR-1/Lincoln Boulevard, which would leave the potential for future effects to adjacent parcels, including the BWER, if/when the future transit project is built.

1.4.2 Alternative 2 – Base Alternative

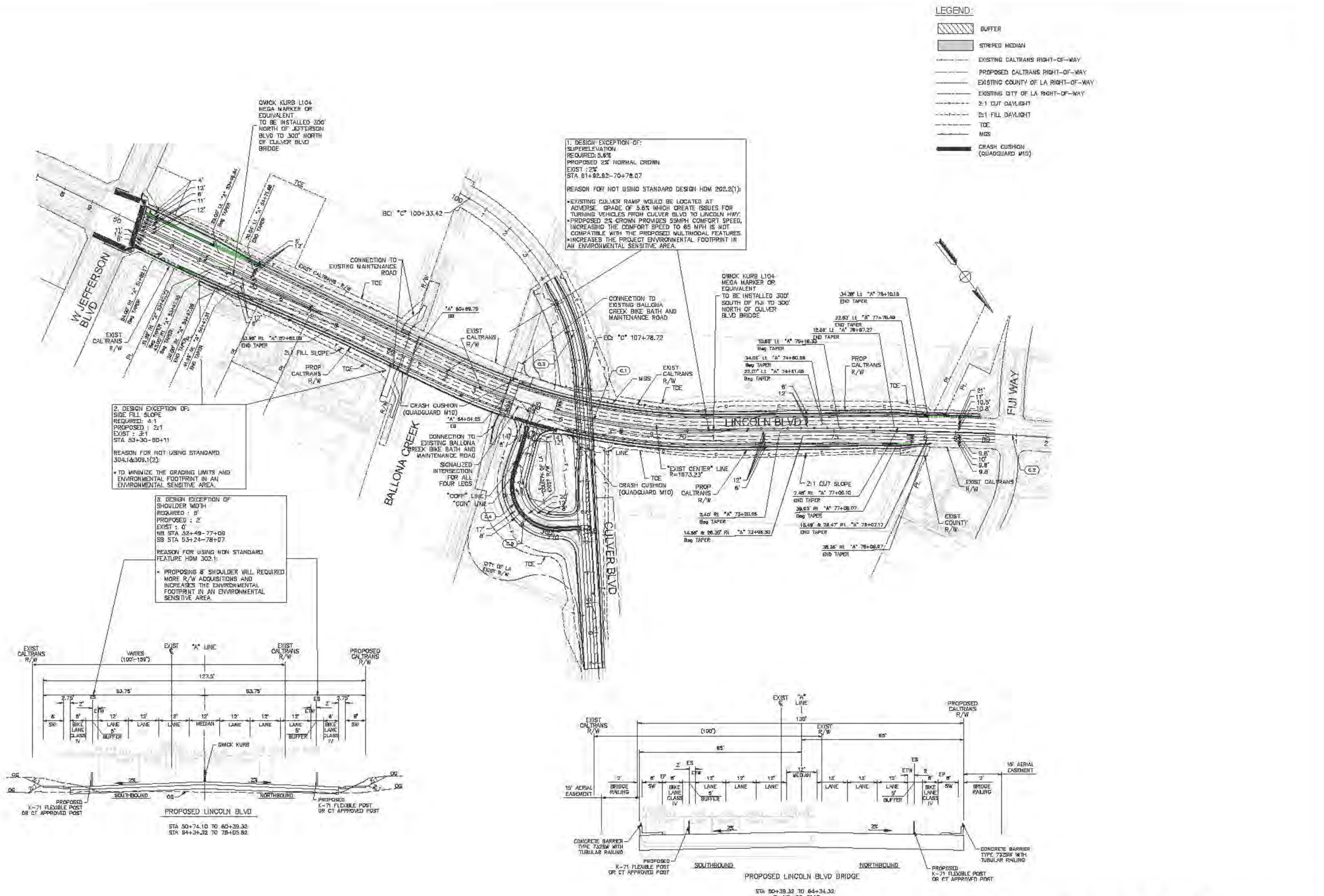
Overview

Alternative 2 includes the realignment of the SR-1/Lincoln Boulevard centerline approximately 50 feet to the east; the addition of one southbound lane along SR-1/Lincoln Boulevard for a length of approximately 1,800 feet; demolition, replacement, and widening of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek; demolition, replacement, and widening of the existing Culver Boulevard Bridge over SR-1/Lincoln Boulevard; demolition, replacement, and realignment of the existing connector ramps between SR-1/Lincoln Boulevard and Culver Boulevard; and construction of active transportation improvements including sidewalks and Class IV protected bicycle lanes on both sides of SR-1/Lincoln Boulevard. Alternative 2 would also include utility relocation, landscaping, low-intensity street lighting, striping, signage, drainage, and water quality improvements. Alternative 2 would install a striped center median that would allow space (130-feet) to accommodate a future center-running transit facility within the project site, which is not included as part of Alternative 2. Construction of Alternative 2 would result in three through lanes in the northbound and southbound directions of SR-1/Lincoln Boulevard between Fiji Way and Jefferson Boulevard, with left turn lanes at the intersections of Jefferson Boulevard, Culver Loop and Fiji Way. The Project design for Alternative 2 is shown in Figure 1-3.

Stage Construction

Construction of Alternative 2 would require temporary traffic detours and staging to keep SR-1/Lincoln Boulevard open to motorists and emergency vehicles at all times during construction. The following is a description of the three major stages of construction for Alternative 2:

- <u>Stage 1 – Demolish and Construct New Culver Boulevard Bridge:</u>
  - a) This stage will be completed first so that existing traffic on SR-1/Lincoln Boulevard can be shifted to the east side of the new SR-1/Lincoln Boulevard Bridge over Ballona Creek during Stage 3.
  - b) Environmentally sensitive area (ESA) fencing would be installed along the edge of the Project construction limits except within Ballona Creek where the edge of construction would be clearly marked on the banks of the creek.
  - c) Temporary security fencing (i.e., chain link) would be installed around portions of the construction areas as needed within the Project limits to deter unauthorized public access within the construction area, including around Project staging areas.



Alternative 2 Project Design Exhibit

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas

Figure 1-3

d) Mobilization and establishment of construction staging areas. During mobilization, equipment, machinery, and materials would be delivered to the project site.

e) Culver Boulevard would be closed between the connector loop road intersection and the Jefferson Boulevard intersection.

f) A detour would be provided from SR-1/Lincoln Boulevard to Culver Boulevard to SR-91 and from Jefferson Boulevard to Centinela Avenue.

g) During this stage, the existing SR-1/Lincoln Boulevard Bridge would remain and would maintain the existing five lanes of traffic.

h) Vegetation would be cleared and grubbed from the Project construction limits (e.g., the combination of the temporary and permanent impact footprints).

i) The existing Culver Boulevard Bridge would be demolished.

j) The new Culver Boulevard Bridge would be constructed.

  - Installation of retaining walls.
  - Construction of abutments including 36” diameter Cast-In-Drilled-Hole (CIDH) concrete piles.

k) Construction of the revised Culver Boulevard Loop Connector Ramps.

- <u>Stage 2 – Construct Widened SR-1/Lincoln Boulevard on East Side of the Road:</u>

a) Open traffic on Culver Boulevard and Culver Boulevard Loop Connector Ramps.

b) Shift traffic to the westerly edge of SR-1/Lincoln Boulevard pavement to provide work area for east side widening.

  - During this stage, a minimum of four lanes of traffic would be maintained.

c) Lower the bike trail profile on the north side of Ballona Creek.

d) Construct east side of SR-1/Lincoln Boulevard Bridge over Ballona Creek.

  - Temporary cofferdams[3] would be installed and used to create a work area within Ballona Creek in areas where new piers would be constructed.
  - Abutments would be constructed including 36” diameter CIDH concrete piles, and stone columns installed beneath the abutments.

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3 A cofferdam is a watertight enclosure from which water is pumped to expose the bed of a body of water so that construction can occur.

- Piers would be constructed consisting of 66-inch diameter Cast In Steel Shell (CISS) concrete pile columns each with integral drop pier caps.
- Concrete slope paving would then be installed.

e) Relocate existing utilities from the existing SR-1/Lincoln Boulevard Bridge to the new east side of the SR-1/Lincoln Boulevard Bridge.

f) Construct new Culver connector loop intersection.

g) Construct the east side widening of SR-1/Lincoln Boulevard from Jefferson Boulevard to Fiji Way. Relocate overhead utility poles on the east side of SR-1/Lincoln Boulevard.

- Stage 3 – Construct Widened SR-1/Lincoln Boulevard on West Side of the Road:

a) Shift traffic to the newly constructed easterly edge of SR-1/Lincoln Boulevard.

b) Remove existing SR-1/Lincoln Boulevard Bridge.

- Temporary cofferdams would be installed and used to create a work area within Ballona Creek in areas where demolition of the existing piers would occur.
- Existing footings would be demolished and removed.
- Existing timber piles would be left in place below the Ballona Creek surface level.
- Concrete, reinforcing steel, and steel girders would be salvaged and recycled following current sustainability practices.

c) Construct west side of SR-1/Lincoln Boulevard Bridge over Ballona Creek.

a. Temporary cofferdams would be installed and used to create a work area within Ballona Creek in areas where new piers would be constructed.

b. Abutments would be constructed including 36” diameter CIDH concrete piles, and stone columns installed beneath the abutments.

c. Piers would be constructed consisting of 66-inch diameter CISS concrete pile columns each with integral drop pier caps.

d. New piers would be driven between the existing timber piles that would remain in place.

e. A concrete deck closure pour would then be cast to tie the two bridge halves together.

f. Concrete slope paving would then be installed.

b) Construct the west side widening of SR-1/Lincoln Boulevard from Jefferson Boulevard to Fiji Way.

c) Relocate overhead utility poles on the west side of SR-1/Lincoln Boulevard.

d) Install landscaping.

Preliminary Construction Schedule

Alternative 2 would be constructed over approximately 783 working days. Construction is estimated to begin around January 2027. Construction is estimated to be completed around December 2029, with an opening year of approximately 2030.

Partial Right-of-Way Acquisitions and Temporary Construction Easements

No full parcels would be acquired under Alternative 2, and no businesses or residents would be displaced by this alternative.

Alternative 2 would require partial right-of-way acquisitions from 12 parcels. Four of these parcels are within the BWER, consisting of 1.17 acres in total.

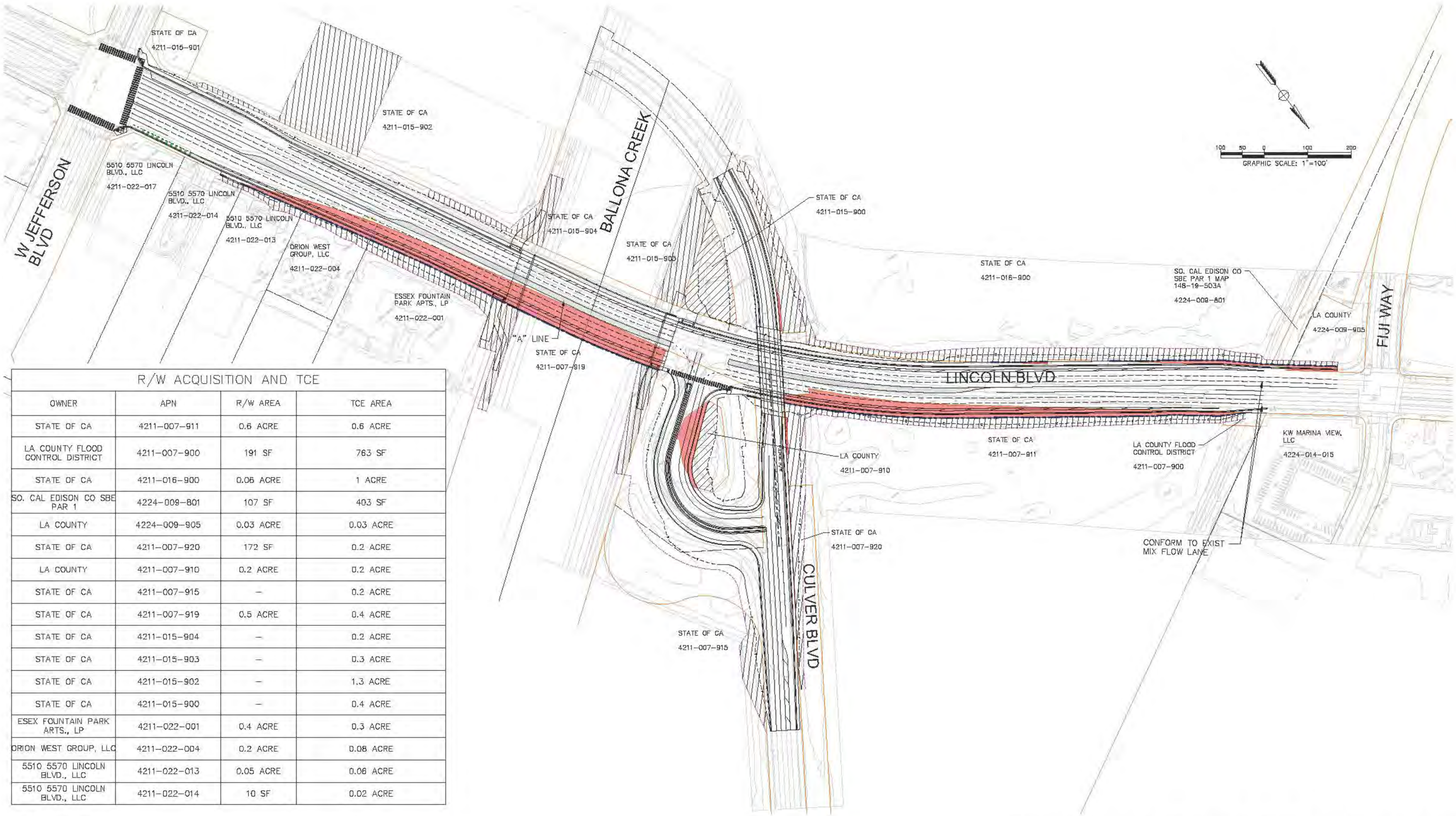
One of the other parcels from which a partial right-of-way acquisition would be needed is the Fiji Gateway Park, which would be required to build a new sidewalk.

Alternative 2 would require temporary construction easements (TCEs) from 17 parcels. Nine of these parcels are owned by CDFW and are within the BWER, consisting of 4.6 acres in total that would be needed to accommodate Project design for Alternative 2.

A TCE would also be needed at Fiji Gateway Park.

The partial right-of-way acquisition and TCEs required for Alternative 2 are depicted in Figure 1-4.

Alternative 2 would require the approval of three design deviations from the requirements of the Caltrans Highway Design Manual (HDM). These design deviations have been incorporated to minimize effects to coastal waters, wetlands, and the BWER. Also, Alternative 2 includes the acquisition of right-of-way only to the back-of-sidewalk on either side of the 130-foot right-of-way. Often for Caltrans projects, Caltrans acquires additional right-of-way that expands beyond physical improvements to the top or toe of the adjacent slope. Given the sensitivity of the project site, the proposed right-of-way for Alternative 2 has been limited to the back-of-sidewalk.



R/W ACQUISITION AND TCE

OWNER	APN	R/W AREA	TCE AREA
STATE OF CA	4211-007-911	0.6 ACRE	0.6 ACRE
LA COUNTY FLOOD CONTROL DISTRICT	4211-007-900	191 SF	763 SF
STATE OF CA	4211-016-900	0.06 ACRE	1 ACRE
SO. CAL EDISON CO SBE PAR 1	4224-009-801	107 SF	403 SF
LA COUNTY	4224-009-905	0.03 ACRE	0.03 ACRE
STATE OF CA	4211-007-920	172 SF	0.2 ACRE
LA COUNTY	4211-007-910	0.2 ACRE	0.2 ACRE
STATE OF CA	4211-007-915	–	0.2 ACRE
STATE OF CA	4211-007-919	0.5 ACRE	0.4 ACRE
STATE OF CA	4211-015-904	–	0.2 ACRE
STATE OF CA	4211-015-903	–	0.3 ACRE
STATE OF CA	4211-015-902	–	1.3 ACRE
STATE OF CA	4211-015-900	–	0.4 ACRE
ESEX FOUNTAIN PARK ARTS., LP	4211-022-001	0.4 ACRE	0.3 ACRE
ORION WEST GROUP, LLC	4211-022-004	0.2 ACRE	0.08 ACRE
5510 5570 LINCOLN BLVD., LLC	4211-022-013	0.05 ACRE	0.06 ACRE
5510 5570 LINCOLN BLVD., LLC	4211-022-014	10 SF	0.02 ACRE

LEGEND:

TCE

STRIPED MEDIAN

EXIST RIGHT-OF-WAY

2:1 CUT DAYLIGHT

2:1 FILL DAYLIGHT

PROPOSED CT RIGHT-OF-WAY (R/W)

PROPOSED CITY OF LA RIGHT-OF-WAY (R/W)

TEMPORARY CONSTRUCTION EASEMENT (TCE)

RIGHT-OF-WAY ACQUISITION

Alternative 2 Right-of-Way Needs Exhibit

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas

Figure 1-4

More details related to right-of-way acquisition needs for Alternative 2 are provided in Chapter 2.1.7, Relocation and Real Property Acquisition.

SR-1/Lincoln Boulevard Southbound Improvements

Between Fiji Way and Jefferson Boulevard, the existing two-lane segment of southbound SR-1/Lincoln Boulevard would be widened to three travel lanes. Construction of Alternative 2 would result in three lanes in the northbound and southbound directions of SR-1/Lincoln Boulevard between Fiji Way and Jefferson boulevard, with additional turning lanes at the Culver Loop.

Also, the SR-1/Lincoln Boulevard southbound approach lane configuration at the SR-1/Lincoln Boulevard and Jefferson Boulevard intersection would be changed from two left turn lanes, three through lanes, and a shared through/right-turn lane to two left turn lanes, three through lanes, and a separate right-turn lane (L-L-T-T-T-TR to L-L-T-T-T-R)

Proposed SR-1/Lincoln Boulevard Bridge Design

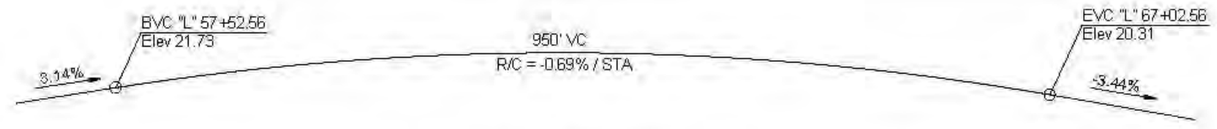
<u>Superstructure</u>

A plan view, a typical section, and an elevation for the SR-1/Lincoln Boulevard Bridge as proposed by Alternative 2 are provided as Figure 1-5. A California Wide Flange Precast Prestressed (PC/PS) Concrete Girder superstructure would be utilized for the proposed bridge. The bridge would be approximately 334 feet, 6 inches in length and 130-feet wide with a total area of 43,485 square feet (CNS 2022a). The superstructure would have a typical span length of 111 feet, 6 inches between abutments/piers and a structure depth of 5 feet. The 5-foot superstructure depth would include a 4-foot deep California standard wide flange girder, a nominal haunch depth of 4 inches, and a cast-in-place 8-inch concrete deck slab. The PC/PS concrete girder superstructure would eliminate the need for extensive falsework in the channel and would be able to be constructed more quickly than cast-in-place options that were considered during preliminary design. The proposed 130-foot-wide bridge would be approximately 61 feet wider than the existing 69-foot-wide bridge. The proposed bridge would encompass the same general horizontal footprint as the existing bridge shifted approximately 10 feet to the east, plus an additional approximate 69 feet upstream/to the east of widened bridge to accommodate Alternative 2 improvements.

<u>Substructure</u>

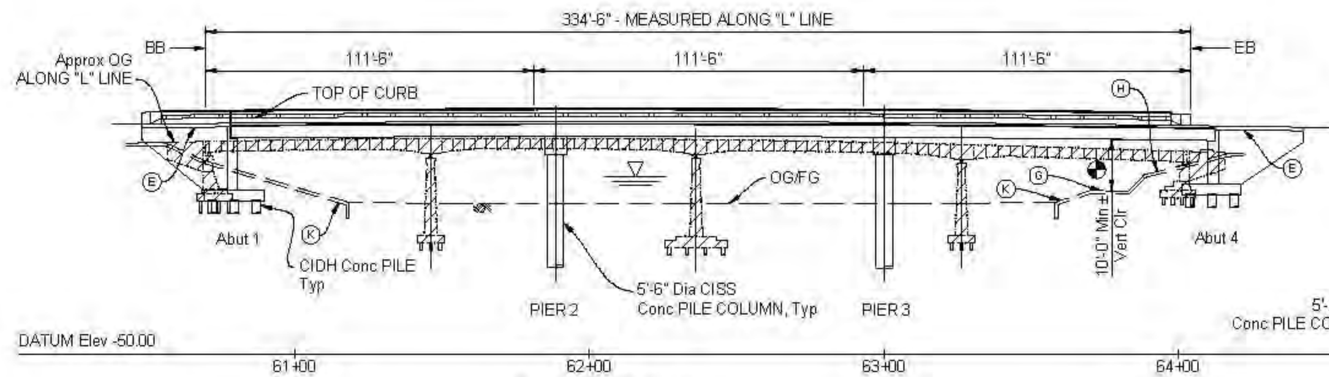
Abutments

The proposed SR-1/Lincoln Boulevard Bridge would have three spans. Open-end high cantilever seat-type abutments founded on 36-inch diameter CIDH concrete piles would be installed along the banks of both sides of the channel to support the superstructure. Due to the potential presence



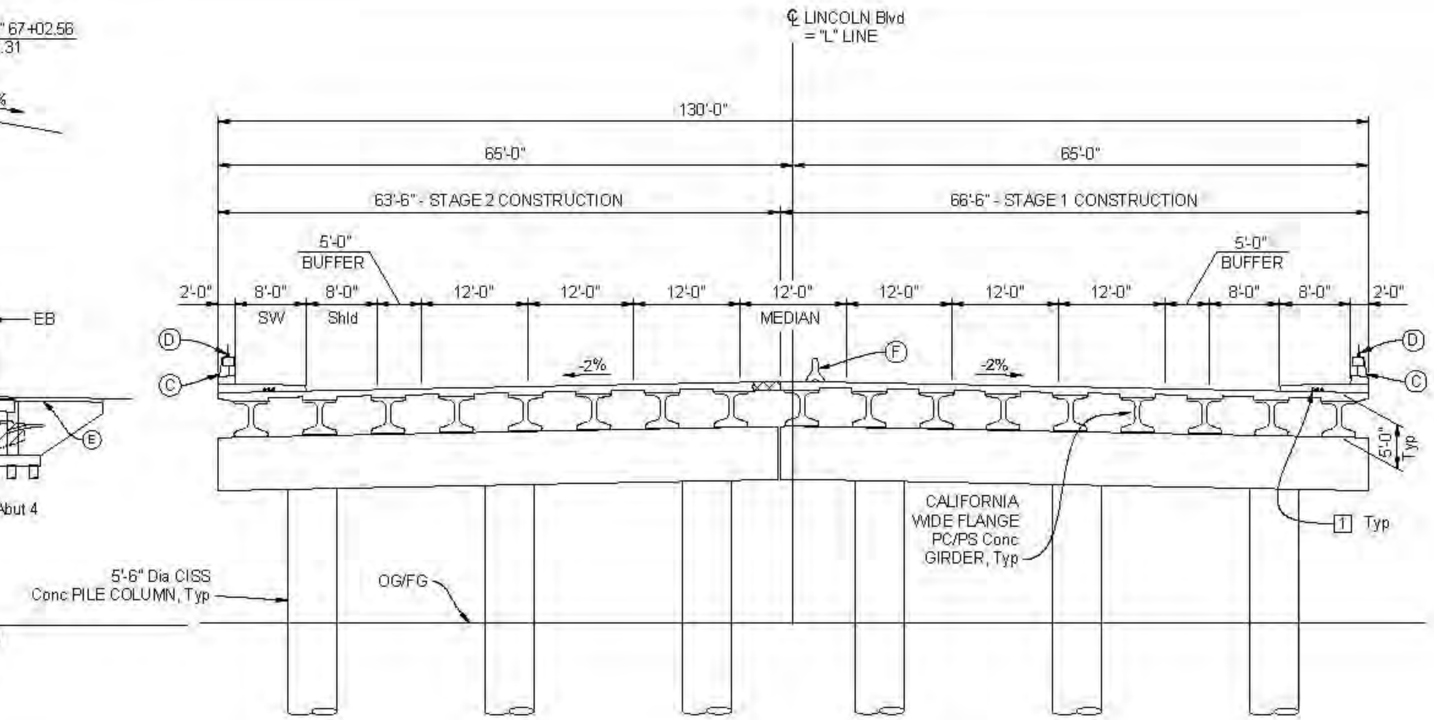
PROFILE GRADE

NO SCALE



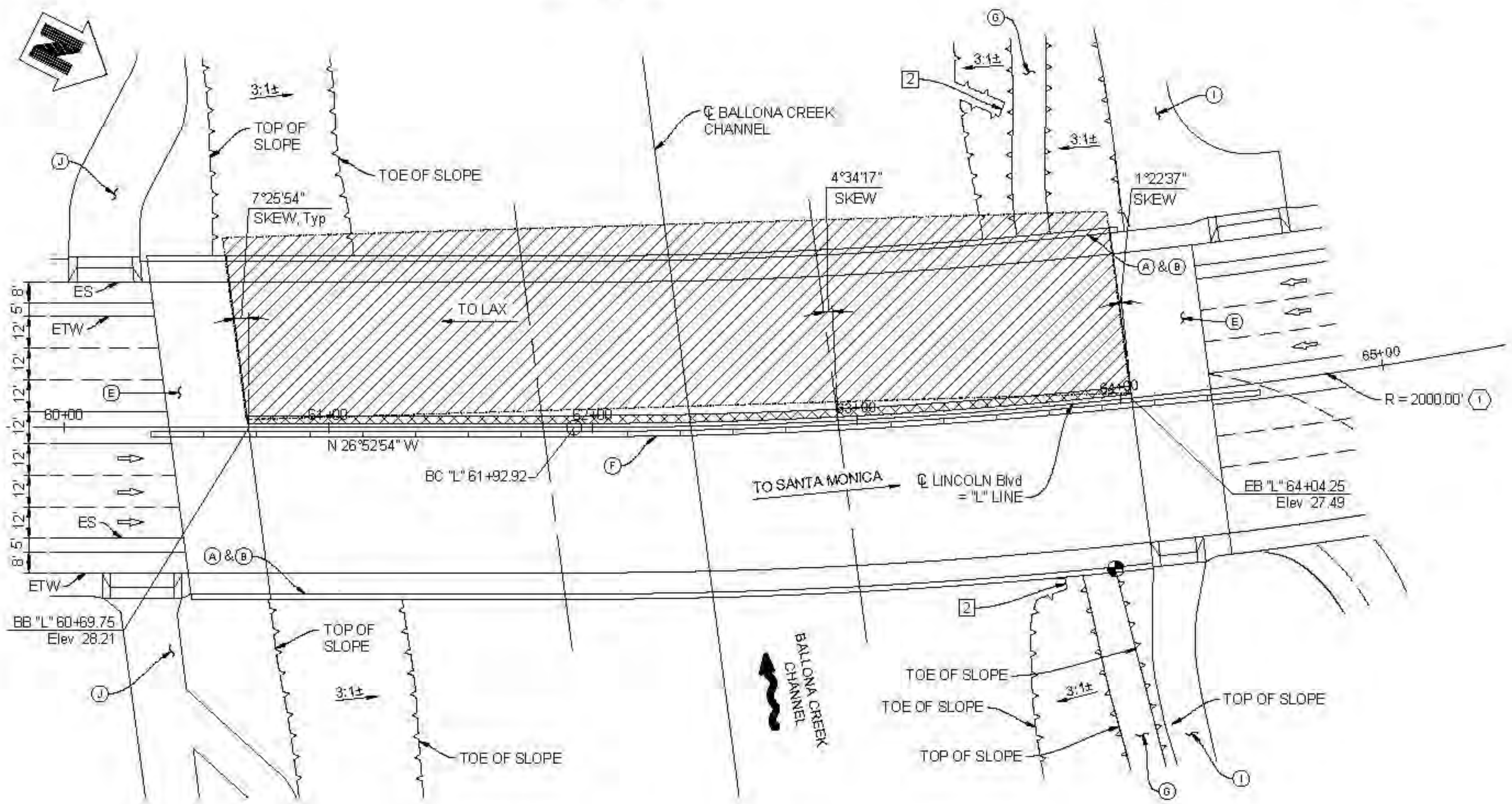
ELEVATION

1" = 30'-0"



TYPICAL SECTION

1" = 10'-0"



PLAN

1" = 30'-0"

LEGEND:

- Exist Structure
- New Construction
- Traffic Direction
- Bridge Removal
- Closure Pour
- Point of Minimum Vertical Clearance
- Water Surface Elevation

KEY NOTES:

- (A) Paint "Br. No. 53-0116"
- (B) Paint "LINCOLN BLVD BRIDGE OVER BALLONA CREEK"
- (C) Conc Barrier, Type 85SW (Mod)
- (D) Tubular Handrailing
- (E) Structure Approach, Type N (30S)
- (F) Temporary K-Rail
- (G) Exist Bike Path
- (H) Exist Bike Path Ramp
- (I) Proposed Bike Path Ramp
- (J) Proposed Maintenance Road Ramp
- (K) Exist Conc Slope Protection

UTILITIES:

- 1 Future Utilities Opening
- 2 Storm Drain

NOTE

Date of Estimate		10/01/2021
Str Depth	=	5'-0"
Length	=	334'-6"
Width	=	130'-0"
Area	=	43,485 sqft
Avg Cost per Sq Ft Including 10% Mobilization & 25% Contingency	=	$516.00
Total Cost	=	$22,458,000

CURVE DATA TABLE

CURVE No.	R	Δ	T	L
1	2000.00'	25°36'56.00"	886.72'	894.15'

Lincoln Boulevard Bridge – Plan View, Typical Section, and Elevation

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: CNS Engineers, Inc.

Caltrans

Figure 1-5

of lateral spreading and liquefiable soils at abutments, stone columns would also be installed beneath the abutments. Abutments would be skewed to match the channel flow direction. Concrete slope paving would be installed at the bridge abutments that would match the existing conditions.

Piers

Two multi-column piers consisting of six, 66-inch diameter CISS concrete pile columns each (twelve piers) with integral drop pier caps that would be constructed to support the superstructure. Piers would be skewed to match the channel flow direction. Unlike the existing bridge that is founded on piers enclosed within pier walls, the proposed bridge would have multi-column piers with no pier walls. The steel shells associated with the CISS concrete pile columns would need to be driven into place using pile driving methods. These 66-inch diameter CISS concrete piles would be installed using a pile driving rig that is either on a barge or on a temporary trestle platform that would be advanced along the bridge by using temporary piles and the permanent CISS piles as they are built.

As shown in Table 1-1, the total diameter of the proposed piers within Ballona Creek would be 792 inches, which is a 19.7 percent decrease from the 987-inch diameter of existing footings and pier walls that occur within the channel.

Table 1-1 – Comparison of Existing and Proposed Pier Footprints Within Ballona Creek

Location	Proposed Footprint of Piers in Ballona Creek
Pier 2 (six, 66-inch diameter piles)	396 inches
Pier 3 (six, 66-inch diameter piles)	396 inches
Total Diameter of Piles	**792** inches
Existing Bridge Pier Diameter in Ballona Creek (Three Piers)	**987** inches
Amount Reduction in Diameter of Piers in Ballona Creek With Alternative 2	**195** inches

Sources: CNS 2022a, STV and Fehr & Peers 2013a.

Temporary cofferdams would be installed and used to create a work area within Ballona Creek in areas where demolition of the existing piers and installation of new piers would occur. More information related to this topic is provided in Chapter 2.2.1, Hydrology and Floodplain.

Slope Protection at the SR-1/Lincoln Boulevard Bridge

Concrete lined slopes would be provided at the abutments to match the existing conditions.

Proposed SR-1/Lincoln Boulevard Bridge Profile

The profile for the proposed SR-1/Lincoln Boulevard Bridge over Ballona Creek as well as the roadway approaches to the bridge relative to the existing grade is provided in Figure 1-6. The proposed bridge would provide a minimum 10 feet of vertical clearance from the reprofiled Ballona Creek Bike Path, and a minimum freeboard[4] of 2 feet. At the highest point, the new bridge would be 8 feet higher than the existing bridge.

Proposed Culver Boulevard Bridge Design

Superstructure

A plan view, a typical section, and an elevation for the proposed Culver Boulevard Bridge are provided as Figure 1-7. A California Wide Flange PC/PS Concrete Girder superstructure would be utilized for the proposed bridge. The bridge would be approximately 150 feet in length, 54 feet, 4 inches wide, with a total area of 8,150 square feet (CNS 2022b). The bridge would have a 7-foot superstructure depth that would include a 6-foot-deep California standard wide flange girder, a nominal haunch depth of 4 inches, and a cast-in-place 8-inch concrete deck slab. The PC/PS concrete girder superstructure would eliminate the need for extensive falsework in the channel and would be able to be constructed more quickly than cast-in-place options that were considered during preliminary design. The proposed bridge is approximately 4 inches wider than the existing structure and would be aligned generally along the same centerline.

Substructure

Abutments

The bridge would have one span, abutments would consist of closed-end high cantilever seat-type abutments that would be founded on 36-inch diameter CIDH concrete piles.

The approach embankments would be held back through the installation of retaining walls.

Slope Protection at the Culver Boulevard Bridge

Slope paving at the abutments is not proposed for the Culver Boulevard Bridge. Instead, the abutment slopes for the Culver Boulevard Bridge would be earthen.

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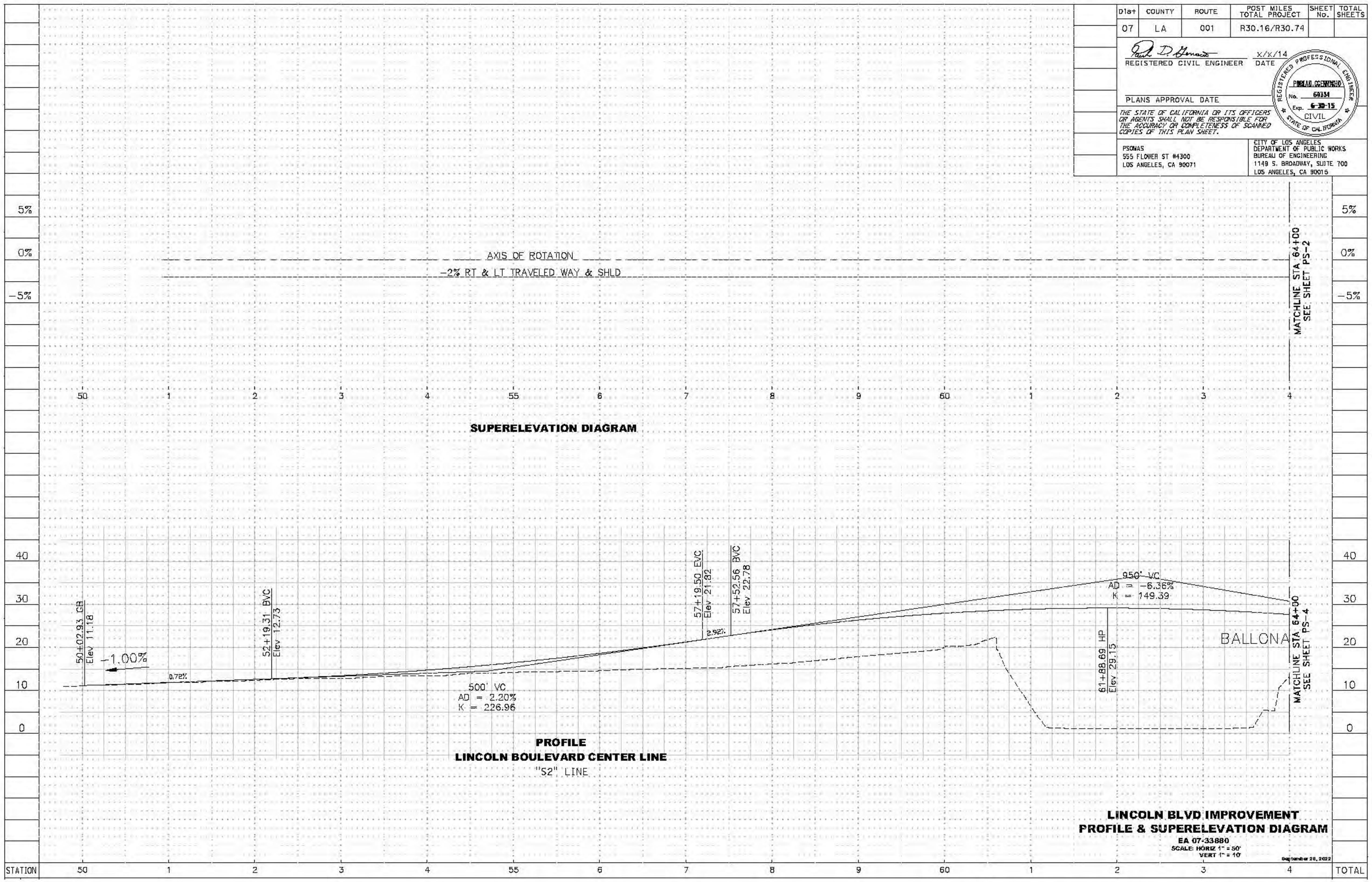
4 Bridge freeboard is the clearance between the lower limit of the bridge superstructure or the bottom of the culvert top slab and the Freeboard High Water surface elevation.



Lincoln Boulevard Bridge – Profile

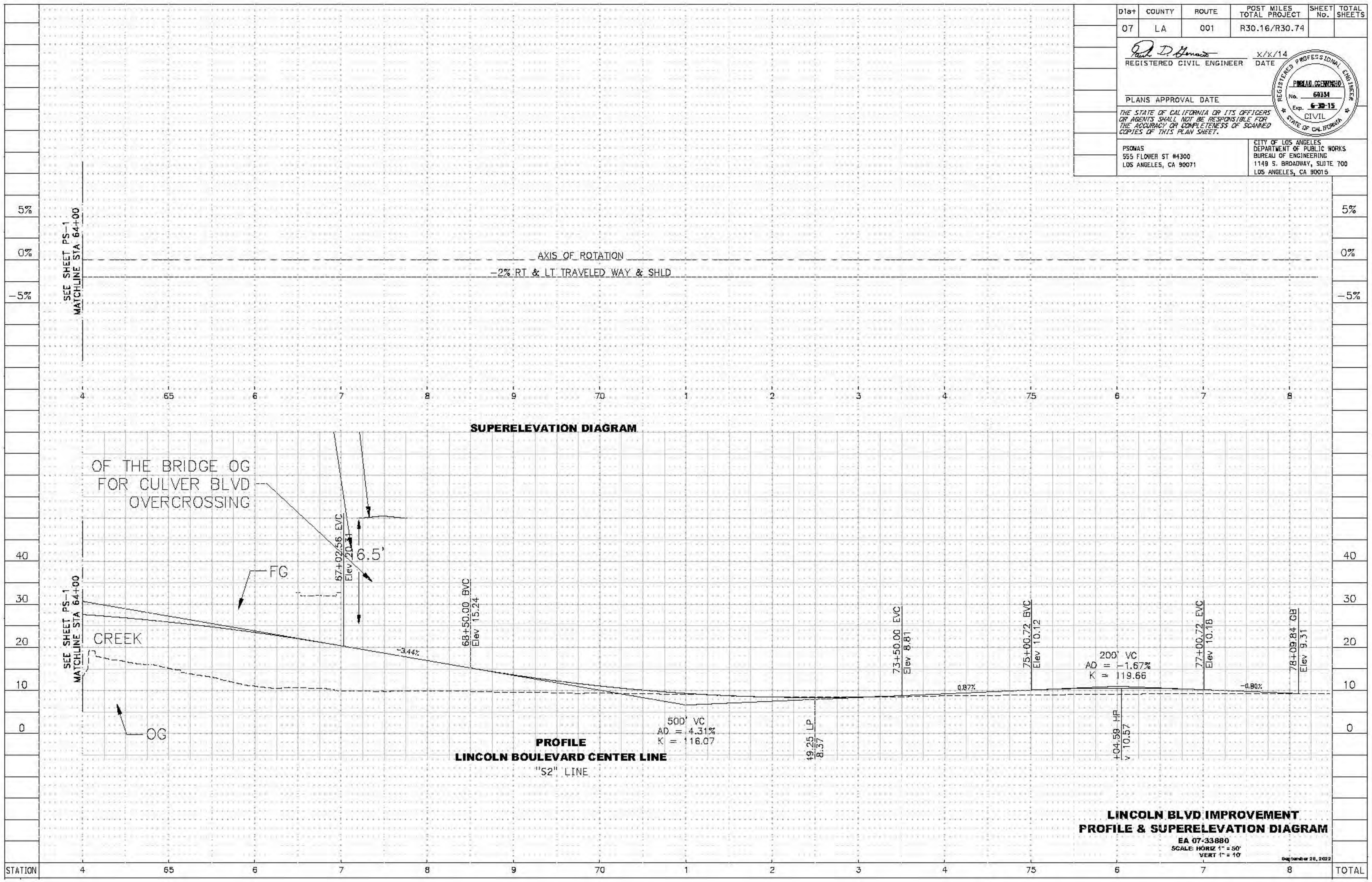
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas, 2022

Figure 1-6a



Lincoln Boulevard Bridge – Profile

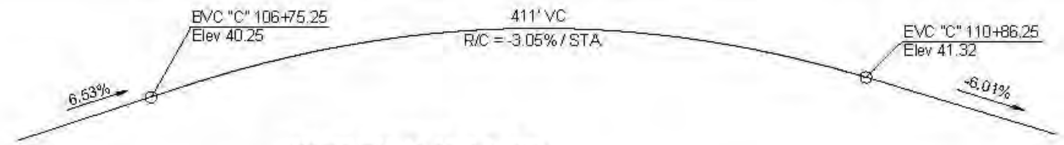
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

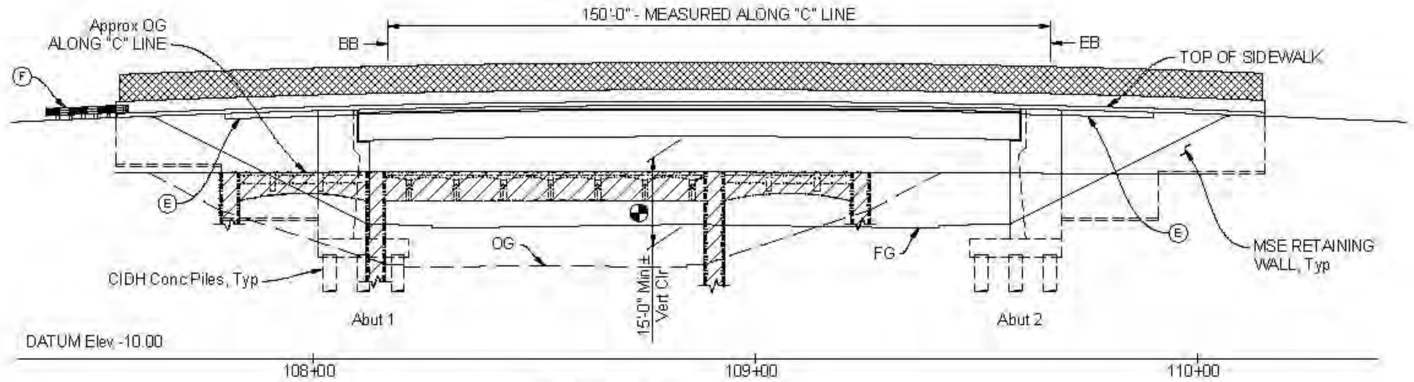
Source: Psomas, 2022

Figure 1-6b



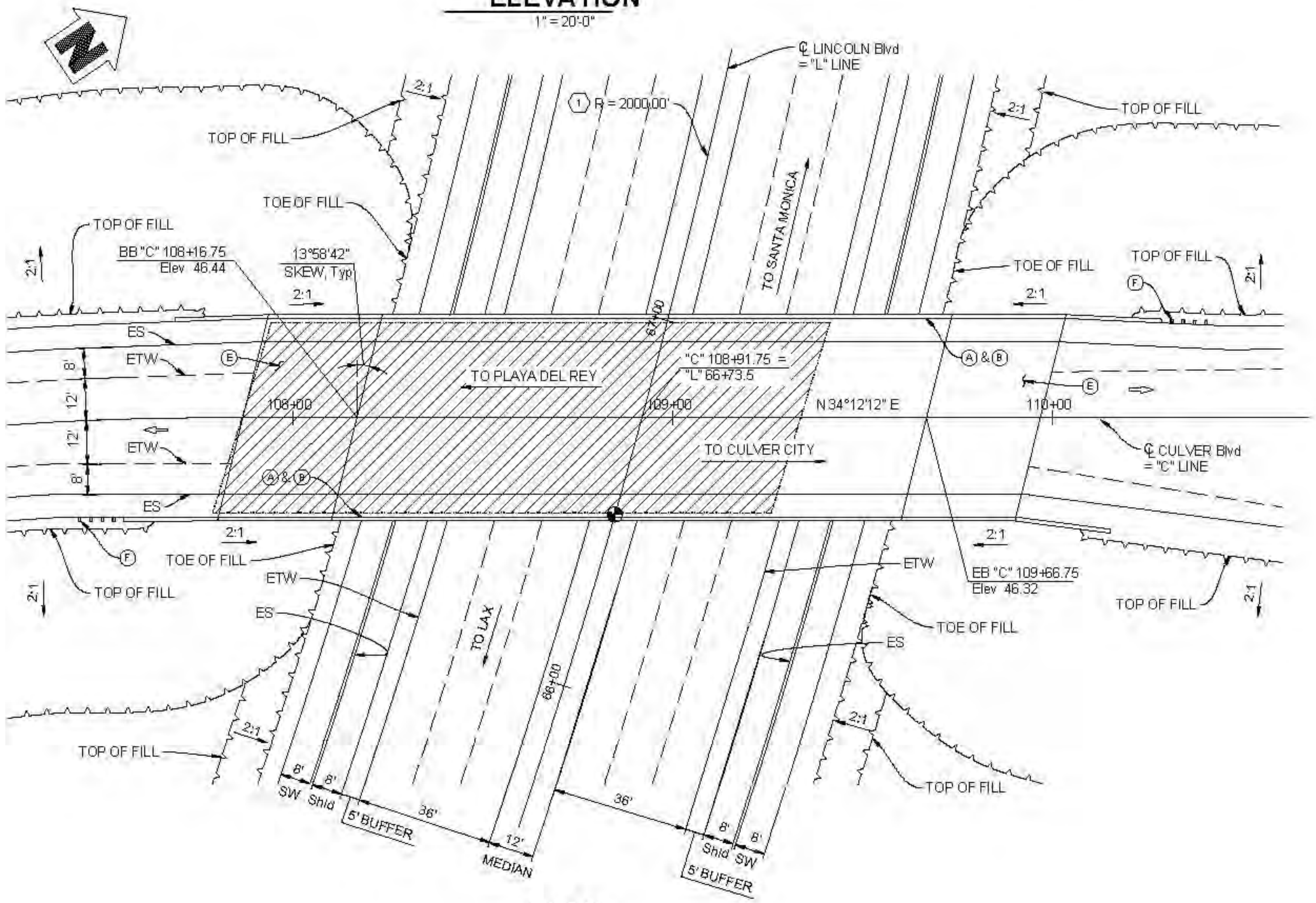
PROFILE GRADE

NO SACLE



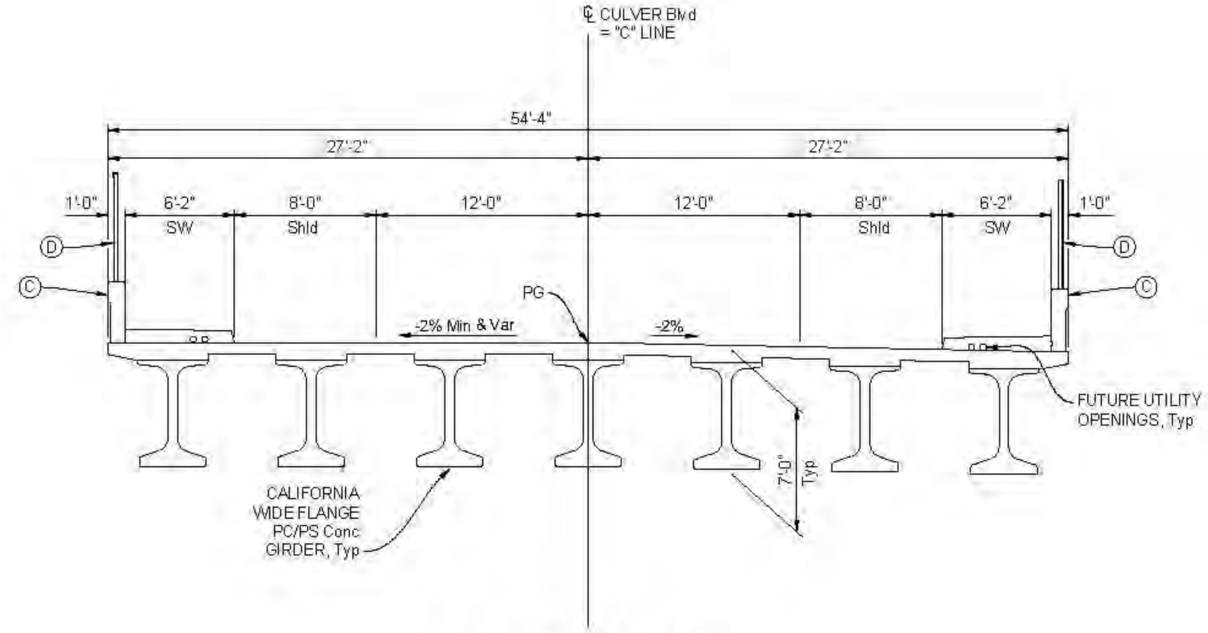
ELEVATION

1" = 20'-0"



PLAN

1" = 20'-0"



TYPICAL SECTION

1" = 5'-0"

LEGEND:

- Exist Structure
- New Construction
- Traffic Direction
- Bridge Removal
- Point of Minimum Vertical Clearance

KEY NOTES:

- (A) Paint "Br. No. ---"
- (B) Paint "CULVER BLVD OC"
- (C) Conc Barrier, Type 732SW (Mod)
- (D) Chain Link Railing, Type 7
- (E) Structure Approach, Type N (30S)
- (F) MGS, see "ROAD PLANS"

NOTE

Date of Estimate		10/01/2021
Str Depth	=	7'-0"
Length	=	150'-0"
Width	=	54'-4"
Area	=	8,150 sqft
Avg Cost per Sq Ft including 10% Mobilization & 25% Contingency	=	$914.00
Total Cost	=	$7,452,000

CURVE DATA TABLE

CURVE No.	R	Δ	T	L
1	2000.00'	25°36'56.00"	886.72'	894.15'

Culver Boulevard Bridge – Plan View, Typical Section, and Elevation

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: CNS Engineers, Inc.

Caltrans

Figure 1-7

Proposed Culver Boulevard Bridge Profile

The profile for the proposed Culver Boulevard overpass over SR-1/Lincoln Boulevard as well as the roadway approaches to the bridge relative to the existing grade is provided in Figure 1-8. At the highest point, the new bridge would be 16 feet higher than the existing bridge.

Installation of Temporary Environmentally Sensitive Area and Construction Area Fencing

As a first step in the construction process, temporary ESA fencing would be installed along the outer limits of the Project construction limits (e.g., the combination of the temporary and permanent impact footprints) within and adjacent to the BWER and other vegetated and/or non-developed areas of the Project work limits, which is shown in Figure 1-9. Temporary security fencing (i.e., chain link) would be installed around portions of the construction areas as needed within the Project limits to deter unauthorized public access within the construction area, including around Project staging areas. No ESA or other fencing would be installed within Ballona Creek.

Clearing and Grubbing

After ESAs are fenced, vegetation would be cleared and grubbed from the Project's construction limits, which includes all locations that are identified as either permanent or temporary impact areas in Figure 1-9.

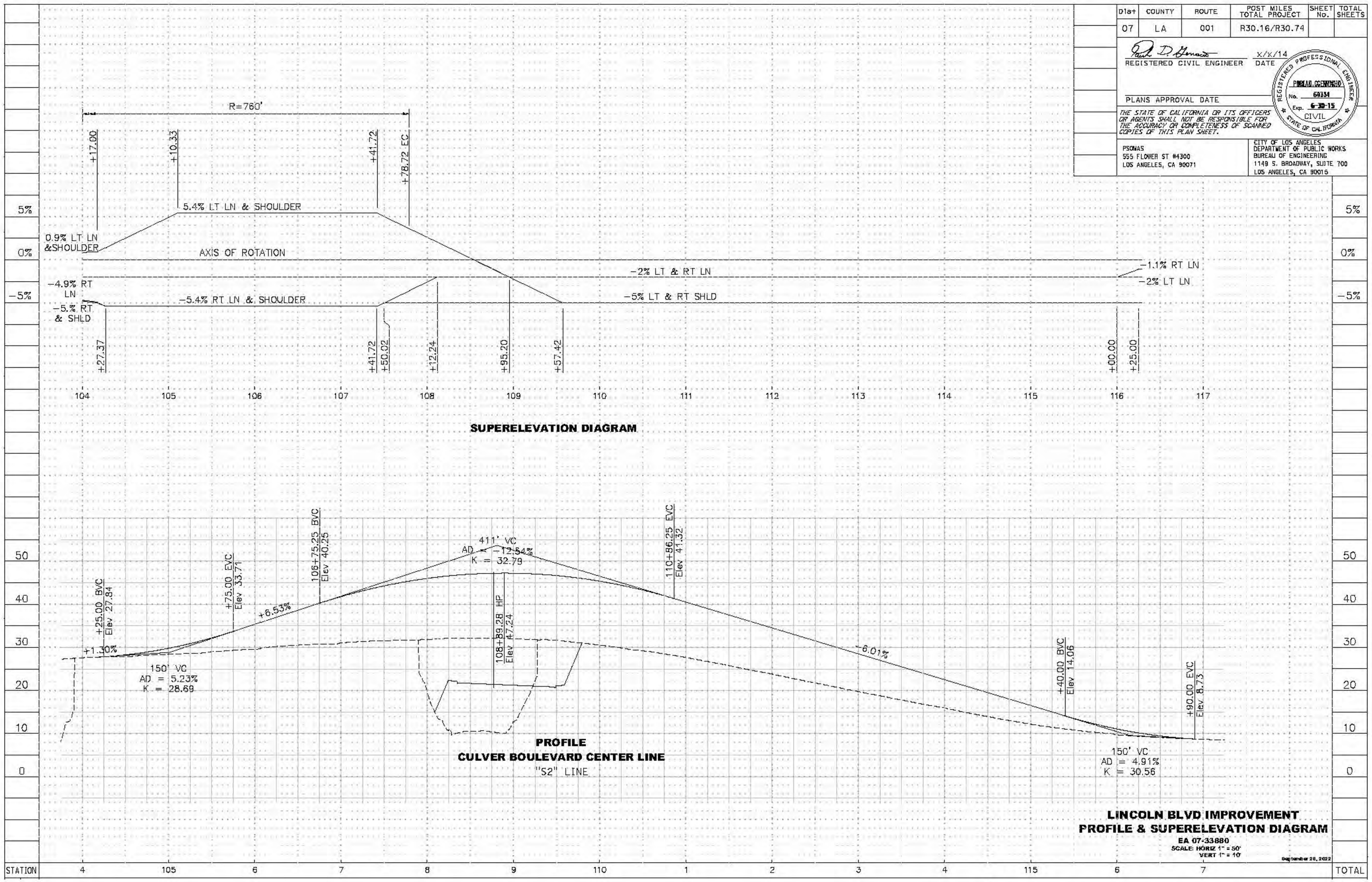
Mobilization and Establishment of Construction Storage and Staging Areas

During mobilization, equipment, machinery, and materials would be delivered to the project site. Also, construction trailers would be delivered and set up within the construction staging areas that are shown in Figure 1-9. During this point of construction and throughout the rest of construction, storm water best management practices would be implemented consistent with a Storm Water Pollution Prevention Plan (SWPPP) that would be prepared in accordance with **MM WQ-1**, which is described below in Chapter 2.2.2, Water Quality and Storm Water Runoff.

Permanent Impact and Temporary Impact Defined

The term "permanent impacts" is used in this Draft EIR/EA to define areas within the project site that would be permanently acquired as right-of-way to accommodate Alternative 2.

The term "temporary impacts" is used in this Draft EIR/EA to define areas within the project site that would not be acquired, but would be otherwise temporarily impacted through vegetation removal, grading, and/or use as a staging or construction work area temporarily during construction. Temporary impact areas would be replanted in consultation with property owners prior to completion of construction of Alternative 2. For the purposes of the impact analyses in



Culver Boulevard Bridge – Profile

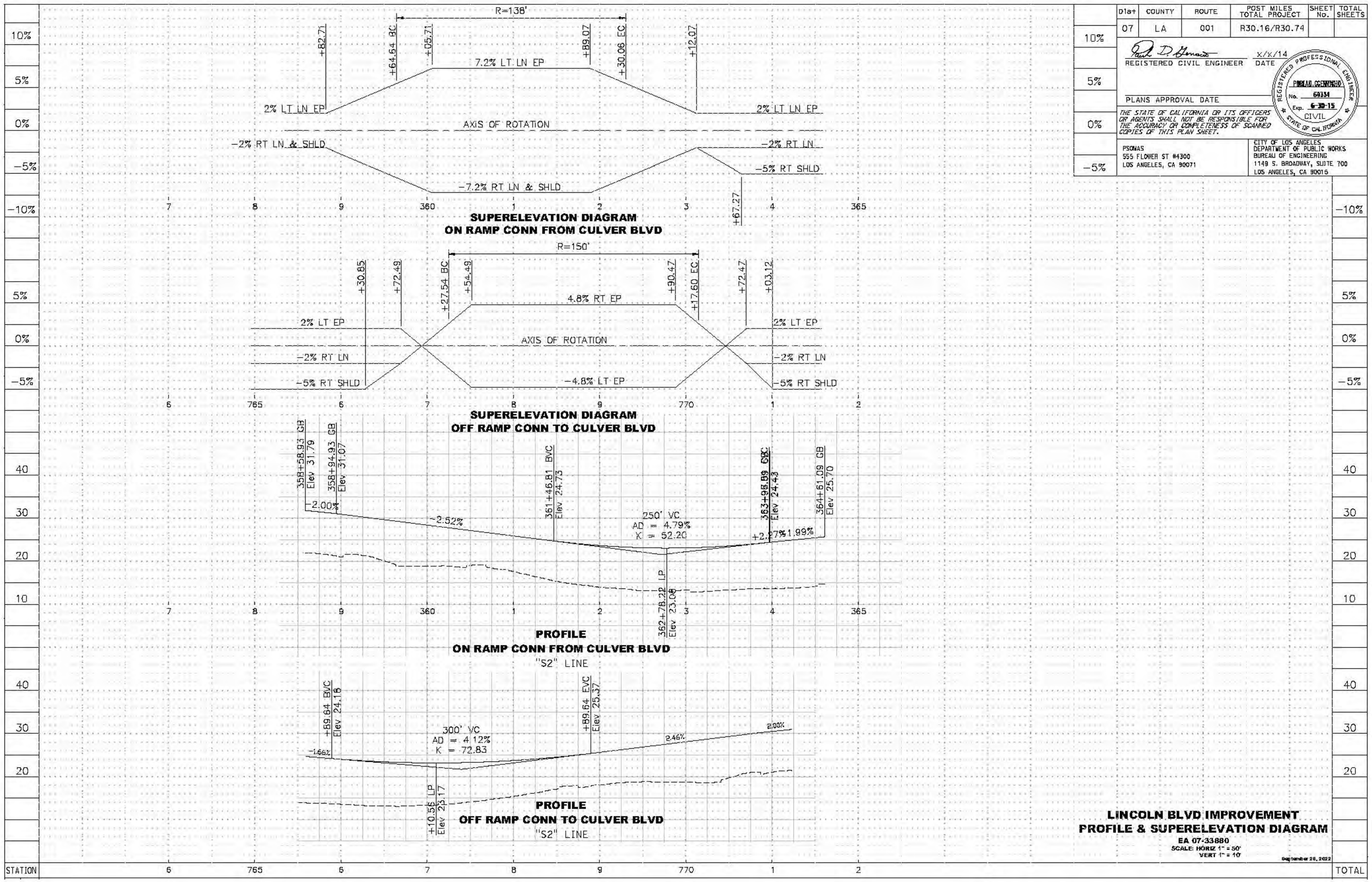
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas, 2022

Figure 1-8a



Culver Boulevard Bridge – Profile

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas, 2022

Figure 1-8b

Alternative 2 Construction Limits and Impact Footprint Exhibit

State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project

07-LA-1, PM30.13/30.74

EA 33880

Aerial Source: Esri, Maxar 2022

Figure 1-9

this Draft EIR/EA, it is assumed that temporary impact areas would be utilized for approximately 24 months and would then be revegetated, with an estimated four month plant establishment period thereafter. After the plant establishment period, management of the vegetation within these temporary impact areas would be assumed by the property owners. In the case of temporary impact areas within the BWER, coordination will occur with CDFW to develop a desired plant palette consistent with the Ballona Wetlands Restoration Project for these areas.

The California Coastal Commission utilizes a different approach to defining temporary impacts, instead defining temporary impacts more narrowly as an impact that can be fully rehabilitated within one year of the start of construction.

Import of Fill Materials

Alternative 2 would require a total of approximately 96,525 cubic yards of imported soil. For the purposes of the environmental technical analyses provided in this Draft EIR/EA, the import of 96,525 cubic yards of soil is assumed. However, the adjacent Ballona Wetlands Restoration Project would need to export up to 1,230,000 cubic yards of soil (Psomas 2023a, CDFW 2017a). Therefore, as specified in **MM REC-9** provided in Chapter 2.1.4, Parks and Recreation, during final design the City would coordinate with CDFW to determine if CDFW's restoration project would have excess fill dirt available at the time that the Alternative 2 is planned to be constructed. If CDFW has excess fill dirt available at the time of Alternative 2 construction, the City would conduct necessary geotechnical and hazardous materials testing and evaluate the soil as necessary to determine its suitability for use as fill soil for Alternative 2. If soil from the Ballona Wetlands Restoration Project is determined to be suitable for use, the soil would be utilized to the extent feasible to help achieve part or all of Alternative 2's required 96,525 cubic yards of imported soil. Given that it is not definitively known as to whether or not CDFW will have this soil available at the time of Alternative 2 construction, the air quality, energy, and transportation analyses for Alternative 2 have assumed a worst-case scenario that soil would be imported from off-site.

Utility Relocation

Existing utilities within the project site have been approximately located based on available as-built plans obtained from Caltrans, City, and local utility companies. The following existing underground and overhead utilities have been identified as being within the project site.

- Electric
- Communication
- Gas

- Water
- Storm Drain
- Sanitary Sewer

Utility providers with facilities in the project site include: Los Angeles County Department of Water and Power (for water and electricity), Edison, MCI, Frontier, AT&T, Sprint, Spectrum, and Crown Castle.

During final design, the City would coordinate with each affected utility provider to identify plans for relocation of each utility line. More information on this topic is provided in Chapter 2.1.9, Utilities and Service Systems.

Storm Water, Water Quality and Erosion Control

Construction

As specified in **MM WQ-1**, the Contractor shall develop a SWPPP that would specify appropriate best management practices to avoid and minimize storm water pollution by construction activities. The Contractor shall implement the SWPPP throughout construction. Minimum SWPPP Best Management Practices anticipated include temporary hydroseed, temporary fiber rolls, street sweeping, tracking control at job-site entrances, and temporary drainage inlet protection.

Operations

Alternative 2 would result in changes from the existing topography of some portions of the project site, which would be altered through grading or through the deposition of fill to achieve the proposed profile/vertical alignment of SR-1/Lincoln Boulevard within the project site.

The amount of impervious surfaces would increase from 8.39 acres in existing conditions to 10.65 acres of impervious surfaces with Alternative 2 (Psomas 2023a). This would result in a 2.59-acre (21 percent) increase in runoff from the project site; however, mitigation is specified below requiring the capture and temporary retention or detention of any additional storm water generated by the Project to ensure no substantial downstream effects related to increased flows.

Changes to the drainage system within the project site that would occur under Alternative 2 are shown in Figure 2.2.1-12 provided in Chapter 2.2.1, Hydrology and Floodplain. Existing drainage facilities that are within the project site would be removed including existing curbs and gutters, storm water inlets, and storm water pipes between Fiji Ditch in the north and Jefferson Boulvard in the south.

The existing drainage facilities within the Culver Loop area of the project site would be retrofitted, including new storm water inlets and pipes. Also, a detention basin would be constructed east of SR-1/Lincoln Boulevard between the Culver Loop ramp and Culver Boulevard that would receive flows from the Culver Loop area. The detention basin would contain outlet via a raised standpipe that would flow into a 24-inch pipe that would flow south to Ballona Creek. A new (replacement) storm water outlet from the basin would be installed that would include a new headwall and rock slope protection.

The existing storm water pipe, outlet, head wall, and tidal gate flowing from the existing Culver Loop to Ballona Creek would be replaced along a slightly different alignment as mentioned above. Also, the existing storm water inlet and drain pipe on the southeast end of the Culver Loop near the intersection with Culver Boulevard would be removed. This would reduce flows of water to the low-lying area southeast of the Culver Loop.

Storm water from the replacement Ballona Creek Bridge over Ballona Creek would be captured and treated before it is outlet into Ballona Creek or elsewhere as required by **MM WQ-5**.

Also, as required by **MM WQ-5,** storm water generated from the widened roadway would be treated for anticipated roadway contaminants prior to the water discharging into Ballona Creek, Fiji Ditch, or other downstream receiving water bodies. Additional treatment methods could include practices such as biofiltration swales, detention basins, gross solids removal devices, and/or media filters (e.g., filtration systems where the first chamber settles out the larger solids and the second chamber traps hydrocarbons and metals as they pass through the filter).

A portion of the existing 42-inch storm drain that is located on the east side of SR-1/Lincoln Boulevard would need to be relocated as part of Alternative 2, along with its outlet to Fiji Ditch in the north.

Alternative 2 would include seven capture house devices and one trash net within the project site that would intercept primarily trash prior to it being carried to Ballona Creek or other downstream receiving waters.

For more information regarding this topic, see Chapter 2.2.1, Hydrology and Floodplain, and Chapter 2.2.2, Water Quality and Storm Water Runoff.

Landscaping

Alternative 2 would include replacement plantings and installation of irrigation of the graded area behind the back of the proposed sidewalk on the east side of SR-1/Lincoln Boulevard between Jefferson Boulevard and the Ballona Creek bridge. The graded areas behind the back of the proposed sidewalk throughout the remainder of the project site would be revegetated with native, non-irrigated hydroseed.

All landscaping within TCE areas would consist of an appropriate native, non-invasive plant palette in consultation with each property owner in accordance with **MM VIS-3**. All proposed landscaping would conform to the latest Model Water Efficient Landscape Ordinance and applicable local ordinances. Restoration of temporary impact areas within the BWER would be coordinated with CDFW as detailed in **MM REC-1** and **MM VIS-3**. Restoration of temporary impact areas within Fiji Gateway Park would be coordinated with the County as detailed in **MM REC-4** and **MM VIS-3**.

Streetlights

Existing streetlights would be removed and new streetlights would be installed along Lincoln Boulevard within the project site as a part of Alternative 2. New streetlights would be installed in accordance with Los Angeles Bureau of Street Lighting standards. Generally, these new streetlights would be approximately 30 feet in height and would be spaced approximately 140 feet from each other.

Aesthetic Treatments for Bridges, Abutments, and Walls

During final design and the regulatory permitting process, aesthetic treatments for the bridges, abutments, retaining walls, and sound wall proposed by Alternative 2 would be developed in accordance with **MM VIS-5.**

Fencing

No fencing was originally proposed under Alternative 2. However, as specified in **MM REC-6**, replacement fencing would be installed as part of Alternative 2 along the project site boundaries with the BWER to minimize effects related to potential trespass into unathorized aeras of the BWER and to minimize wildlife mortality on the roadway.

Bicycle and Pedestrian Improvements

Project design as proposed under Alternative 2 incorporates connections to existing bicycle and pedestrian facilities within the project site, as well as connections to faciliites that are proposed as part of the Ballona Wetlands Restoration Project. More information is provided in Chapters 2.1.4, Parks and Recreation, and 2.1.10, Transportation.

Although Lincoln Boulevard serves as a critical north-south connection on the Westside, existing pedestrian facilities are discontinuous north and south of the bridge with no sidewalks provided on either side of the bridge. SR-1/Lincoln Boulevard also lacks bicycle facilities across the bridge, despite its connection to the east-west Ballona Creek Bicycle Path that runs just under the Lincoln Boulevard Bridge parallel to Ballona Creek. This lack of connectivity and protection along a high-volume, high-speed road not only discourages active transportation, but also raises safety concerns for bicyclists and pedestrians attempting to access nearby facilities and destinations.

Alternative 2 would improve connectivity and accessibility to the coastal areas of the Westside for all modes of travel. Proposed improvements on the SR-1/Lincoln Boulevard Bridge include widening of the bridge to accommodate protected bicycle lanes and sidewalks on both sides of the bridge. These bicycle and pedestrian improvements would extend between Jefferson Boulevard and Fiji Way. Adding a separated bicycle lane along this segment would create a complete bicycle network, where cyclists could safely and conveniently travel to and through the area.

Class IV protected bicycle lanes on SR-1/Lincoln Boulevard would provide a connection to the Ballona Creek Bicycle Path as well as existing bicycle facilities south of Jefferson Boulevard and on Fiji Way. Additionally, the proposed improvements would better connect cyclists and pedestrians to the retail and residential developments south of Ballona Creek in Playa Vista off of Jefferson Boulevard. Nearby educational institutions, such as the Westside Neighborhood School, Playa Vista Elementary School, Loyola Marymount University, and Playa Vista Public Library, would be more accessible via active transportation modes.

With average daily traffic exceeding 60,000 vehicles and a speed limit of 45 mph, industry standards recommend separated bicycle lanes. (National Association of City Transportation Officials). Studies have found that separated bicycle lanes increase cycling and reduce vehicle traffic (FHWA 2015a). Furthermore, separated bicycle lanes are more feasible along routes without parking on the shoulder, few transit stops and limited intersections, all of which are characteristics of this segment of SR-1/Lincoln Boulevard (Caltrans 2015a).

Demand for bicycle and pedestrian facilities was noted during traffic counts conducted as part of the Project's Transportation Analysis Report (Fehr & Peers 2020a), including 80 cyclists and 81 pedestrians in the AM peak hour within the study area. During the PM peak hour, 36 cyclists and 66 pedestrians were recorded. The proposed separated bicycle facility and sidewalks would promote the safety of current as well as future cyclists and pedestrians.

With implementation of multimodal improvements along the SR-1/Lincoln Boulevard Bridge, as proposed by Alternative 2, bicycle and pedestrian convenience and safety would be improved. The protected bicycle lanes would create a more robust bicycle network in the area improving the surrounding communities' connectivity to Ballona Creek Bicycle Path and other nearby retail, residential, and academic destinations. The safety risks of cyclists and pedestrians are expected to decrease as exposure to high volume and fast-moving vehicular traffic would be minimized due to separated facilities along SR-1/Lincoln Boulevard Bridge.

Design Exceptions to Minimize Size of the Project's Footprint

A Design Standard Decision Document (DSDD) was prepared for Alternative 2 to evaluate and provide justification for several deviations from the requirements contained within the Caltrans HDM, Sixth Edition that were needed to shrink the impact footprint (Psomas 2023e). These design variations are being proposed as part of Alternative 2 to reduce temporary and permanent effects within the BWER. The DSDD provides an overview and safety evaluation of each of the proposed deviations. The design variations proposed as part of the design of Alternative 2 are summarized below in Table 1-2. Furthermore, a less steep super elevation than required by the HDM is proposed, as a 5.6% super elevation would increase the comfort design speed for SR-1/Lincoln Boulevard to 65 mph, which is 20 mph greater than the planned/existing posted speed limit of 45 mph. A 5.6% standard superelevation rate and resultant comfort design speed of 65 mph is not compatible with the proposed pedestrian and bicycle features of the multimodal vision for the project site and vicinity (Psomas 2023e).

Table 1-2 – Design Standard Deviations for Alternative 2

Type	Required	Proposed	Existing
Shoulder Width	8 feet	2 feet	2 feet
Super Elevation	5.6%	-2%	-2%
Side Fill Slopes	4:1 or flatter	2:1	3:1

%: percent
Source: Psomas 2023e – See Table 9 in that report.

Posted and Design Speed

For Alternative 2, the posted speed limit along SR-1/Lincoln Boulevard would be 45 mph, and the design speed would be 50 mph (Psomas 2023a).

Retaining Walls

Standard retaining walls are proposed at the SR-1/Lincoln Boulevard and Culver Boulevard Bridges under Alternative 2 to minimize the grading footprint.

Noise Barriers

Based on the studies completed to date, the City intends to implement noise abatement as part of Alternative 2 in the form of a noise barrier (e.g., sound wall) that would be built on the east side of SR-1/Lincoln Boulevard south of Ballona Creek along the eastern edge of the right-of-way line.

If during final design conditions have substantially changed, noise abatement may not be necessary. The final decision on the sound wall will be made upon completion of the Project's design and the public involvement process[5].

More information on noise is provided in Chapter 2.2.7, Noise and Vibration.

Maximum Depths of Disturbance Anticipated

Alternative 2 would require ground disturbance across a total of 22.41 acres[6] within the project site (Psomas 2024a). The general areas that would be impacted are described below geographically from north to south within the project site:

- SR-1/Lincoln Boulevard North of Culver Boulevard – Alternative 2 construction in the northern portion of the project site, north of the Culver Loop Ramp, would consist of the removal of existing pavement and reconstruction of SR-1/Lincoln Boulevard at a higher elevation and with a wider footprint. Most of the roadway widening would occur on the east side of the road, and would occur on imported fill. This work north of the Culver Loop Ramp would require a maximum depth of ground disturbance of approximately 2 feet to allow for pavement removal that would occur entirely within previously disturbed soils to remove the existing pavement. Also, south of Fiji Way along the west side of SR-1/Lincoln Boulevard Alternative 2 would cut into the existing slope west of the roadway to a maximum depth of approximately 8 feet. However, prior geotechnical borings in this area indicated 9 feet of fill materials, so it is not likely that native soils would be encountered.

5 As described in the Caltrans Traffic Noise Analysis Protocol, benefited receptors of the sound wall would be polled regarding whether or not they want the sound wall prior to completion of the final design package (Caltrans 2020). The draft environmental documentation process is used to obtain formal input from these adjacent landowners and occupants, as well as from the general public on proposed noise abatement measures. During final design, a letter and voting ballot will be sent to all property owners and non-owner occupants at benefitted receptors to solicit their viewpoints either in support or opposition to the proposed sound wall. If more than 50% of the benefitted receptors vote to oppose the sound wall, then the sound wall would not be considered reasonable and would not be implemented. For non-owner occupied dwelling units, the renter gets 10% of one vote and the owner gets 90% of one vote.

6 A 22.41-acre overall impact footprint was determined by adding 12.087 acres of permanent impacts and 10.317 acres of temporary impacts that are identified within the Natural Environment Study (NES) (Psomas 2024a). Please note that the total Disturbed Surface Area (DSA) within the Storm Water Data Report (SWDR) has a lower acreage given that DSA was calculated in a different manner in the SWDR than how impacts were calculated in the NES.

- Culver Boulevard Bridge Abutments – Alternative 2 would require approximately 8 feet of native ground disturbance below the abutments on the west and east sides of SR-1/Lincoln Boulevard where the new bridge would lift off to construct new abutments. This would also involve new piles that would be drilled in place and would extend up to approximately 100 feet below the existing ground surface. This is assumed to be a single-span bridge so there would be no bent in the SR-1/Lincoln Boulevard median.
- Culver Loop Ramp – Alternative 2 construction in the area of the Culver Loop Ramp would consist of removing the existing roadway pavement, which would require a maximum depth of ground disturbance of approximately 2 feet that would occur entirely within previously disturbed soils. The loop ramp would then be reconstructed on imported fill material.
- Ballona Creek Bridge Abutments – There would be approximately 8 feet of native ground disturbance below the abutments on the north and south sides of Ballona Creek where the new bridge would lift off to construct new abutments. Also at these locations, there would be 36-inch diameter CIDH concrete piles installed that would extend 100 feet below ground below the new abutments.
- Ballona Creek Bridge Pier Removal – The three existing piers would need to be removed to approximately 2 feet below the existing creek bottom.
- Ballona Creek Bridge Pier Replacement – New piers would be driven to a maximum depth of 100 feet below existing Ballona Creek Channel surface. There are a total of twelve, 66-inch piles in Ballona Creek
- SR-1/Lincoln Boulevard South of Ballona Creek – Alternative 2 construction in the southern area of the project site would consist of the removal of existing pavement and reconstruction of SR-1/Lincoln Boulevard at a higher elevation and with a wider footprint. Pavement removal would require a maximum excavation depth of about 2 feet. Widening of the roadway south of Ballona Creek would occur on fill; therefore, no ground disturbance would be needed beyond what is required for pavement removal, with the exception of one soundwall. Alternative 2 may include the construction of a soundwall south of Ballona Creek along the east side of SR-1/Lincoln Boulevard that would require ground disturbance of approximately 8 feet to construct foundations. This soundwall would be constructed in an area east of the existing SR-1/Lincoln Boulevard within a landscaped area fronting a residential land use. Shovel test pits dug in this area as part of the cultural studies indicated past disturbance to a depth of at least 1.65 feet in this area. Alternative 2 could effect up to 6.35 feet of previously undisturbed soils along an approximate 350-foot-long sound wall.

- General Improvements – Alternative 2 would include ground disturbance associated with new streetlights, power pole relocations, and installation of a new signal at SR-1/Lincoln Boulevard and Culver Loop Ramp and at Jefferson Boulevard. Relocated power poles would be set approximately 10-feet-deep along the edges of SR-1/Lincoln Boulevard. New street lights would have an approximate foundation depth of 15 feet. Relocated streetlights at the Culver Loop ramp and the one relocated streetlight at Jefferson Boulevard would have deeper foundations up to approximately 15 feet.

Geotechnical Borings

During final design, site-specific exploratory geotechnical borings would be collected to confirm underlying geologic formations and soil consistency at the proposed bridge locations. This work is estimated to require approximately two months of field work. Figure 1-10 shows the general locations where geotechnical borings may need to be collected during final design.

Design Variations

Four design variations are included as part of this Draft EIR/EA. Each of the design variations consists of a variation on Alternative 2. All mitigation measures and other requirements that apply to Alternative 2 would also apply to the design variations. The purpose of including these design variations is to obtain public input on design options for the Project that have merit and which are technically feasible, but may be unconventional and/or require trade-offs. All, some, or none of the design variations may be incorporated into the Project. Each design variation is summarized below. Additional alternatives considered but dismissed are described in Chapter 1.5.1.

Potential Wildlife Improvements to Fiji Ditch

During final design, in coordination with CDFW and Coastal Commission, opportunities to improve the Fiji Ditch culvert for wildlife movement will be evaluated and incorporated to the extent feasible and to the extent that such improvements do not result in secondary biological of water quality effects. Such opportunities might include landscaping, installing a low flow drinage channel, installing critter shelfs, installing ramps, and/or installing noise dampening acoustic lining. Any direct improvements associated with these activities would occur within the disturbance footprint identified for Alternative 2 and would be permitted as part of the Coastal Development Permit process.

EXPLANATION:

- Approximate locations of the 4 proposed exploratory borings
- Approximate locations of the 4 proposed exploratory CPT soundings

Map of Geotechnical Borings to be Collected During Final Design

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Group Delta Consultants, Inc. 2022

Caltrans

Figure 1-10

1.4.3 Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Alternative 2A would be the same as Alternative 2 with the addition of a retaining wall along a portion of the west side of SR-1/Lincoln Boulevard north of the Culver Boulevard Bridge along the entire stretch of where temporary construction easements would be required under Alternative 2. This design variation would require a 450-foot-long retaining wall ranging from approximately four feet to eight feet in height along the west side of SR-1/Lincoln Boulevard. The retaining wall would avoid approximately 0.65 acres of temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. The amount of permanent acquisitions would remain the same as Alternative 2.

1.4.4 Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Alternative 2B would be the same as Alternative 2 with the exception that it would incorporate cantilevered sidewalks on both sides of SR-1/Lincoln Boulevard above Fiji Ditch[7]. In contrast, Alternative 2 would include a standard widening that would extend the existing culverts on both sides of the road to add the sidewalks, which would result in temporary and permanent effects to Fiji Ditch. On both sides of SR-1/Lincoln Boulevard at Fiji Ditch, cantilevered sidewalks would be built using structures that would protrude out horizontally from the existing roadway, supported on only one end. The cantilevered approach that would be implemented under Alternative 2B would be built from the edge of the future roadway deck and would not require footings or other temporary or permanent effects to Fiji Ditch. Alternative 2B would avoid approximately 403 square feet of temporary construction easements and approximately 107 square feet of right-of-way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements and approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is Los Angeles County Flood Control District (LACFCD)-owned land on the east side of SR-1/Lincoln Boulevard which contains a portion of Fiji Ditch.

1.4.5 Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Alternative 2C would be the same as Alternative 2 with the exception that it would include a wider Culver Boulevard Bridge over SR-1/Lincoln Boulevard. Under Alternative 2C, the new

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[7] Fiji Ditch is an excavated, unlined drainage channel that is located in the northern portion of the project site. Runoff into Fiji Ditch only flows from east of Lincoln Boulevard to the west when the water is high enough to top the catchment at Lincoln Boulevard. The portion of Fiji Ditch west of Lincoln Boulevard is tidally influenced from Marina del Rey (CDFW 2017a).

Culver Boulevard bridge would be approximately 12 feet wider to accommodate a two-lane bicycle/pedestrian path. As part of the Ballona Wetlands Restoration Project, CDFW plans to construct a new bridge spanning SR-1/Lincoln Boulevard north of Culver Boulevard Bridge. CDFW plans to use their new bridge initially to transport earthen fill between Area A and Area C of the BWER during restoration and, later as a permanent structure to facilitate bicycle and pedestrian mobility as part of the public access plan. Alternative 2C could represent substantial cost savings for CDFW if they chose not to build their own parallel bridge. Alternative 2C would increase temporary construction easements by approximately 240 square feet[8] and partial right-of-way acquisition by approximately 1,260 square feet[9] within the BWER. The wider bridge under Alternative 2C would be designed to accommodate the weight of the earth moving equipment that CDFW anticipates needing to transfer across the bridge (e.g., belly loaders, bulldozers, backhoes, work trucks), which CDFW would need to use temporarily as part of the grading operations planned for in the Ballona Wetlands Restoration Project. Then, the City would convert this area along the bring to be a 12-foot-wide, two-lane bicycle/pedestrian path. This would be similar to what is called for in the Ballona Wetlands Restoration Project at this location. The proposed 12-foot path would be 8-feet narrower than the 20-foot-wide path that CDFW notes in their restoration plan for just north of this location, but CDFW would not have to pay for or maintain the bridge[10]. As there would be no separate bicycle and pedestrian facilities, bicyclists and pedestrians would jointly utilize the two-lane, 12-foot path along the bridge under Alternative 2C, in contrast to the separated and buffered bicycle and pedestrian paths that are shown in CDFW's Ballona Wetlands Restoration Project public access and trails documentation. The path would be separated from traffic by a concrete barrier that would be approximately 32-inches-high and 24-inches-wide. Until CDFW builds their planned public trails on both sides of SR-1/Lincoln Boulevard north of Culver Boulevard within the BWER, this northern area of the new Culver Boulevard bridge would be fenced, closed to the public, and utilized only for Caltrans/City maintenance of the bridge facility or for other CDFW-authorized uses.

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8 Assumes temporary construction easements on both sides of the bridge that would be 12 feet wide that would go ten feet into APN 4211-016-900 on the west side of Lincoln Boulevard and APN 4211-007-911 on the east side of Lincoln Boulevard.

9 Calculated assuming 12 feet of a wider bridge would occur within approximately 55 feet into APN 4211-007-911 and approximately 50 feet into APN 4211-016-900.

10 20-feet was calculated based on the Ballona Wetlands Restoration Plan's typical cross section for a typical pedestrian and bicycle trail, which shows a typical 12-foot two-way bike path, a 2-foot planting buffer, and a 6-foot pedestrian path. For more information, see Figure 2-27 in CDFW 2017a.

1.4.6 Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Alternative 2D would be the same as Alternative 2 with the exception that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would provide enhanced connectivity and could mostly be constructed within the current temporary and permanent impact footprints identified for Alternative 2. However, Alternative 2D would require additional grading and permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900 that would not be constructed under Alternative 2, which is a part of the BWER. If Alternative 2D were to be implemented, approximately 840 square feet of additional permanent right-of-way would be required from APN 4211-015-900[11]. Under Alternative 2D, the City would own and manage the entire ramp. Partial acquisition areas from the BWER would be compensated for in the same manner and at the same rate as is specified for Alternative 2.

1.5 Comparison of Alternatives

Table S.1 provides a comparison of the effects between the Project alternatives for each of the topics analyzed in this document. After the public circulation period, all comments will be considered, and Caltrans will select a preferred alternative and make the final determination of the Project's effect on the environment. Under CEQA, Caltrans will certify that the Project complies with CEQA, prepare findings for all significant impacts identified, prepare a Statement of Overriding Considerations for significant impacts that will not be mitigated below a level of significance, and certify that the findings and Statement of Overriding Considerations have been considered prior to Project approval. Caltrans will then file a Notice of Determination with the State Clearinghouse that will identify whether the Project will have significant impacts, if mitigation measures were included as conditions of Project approval, that findings were made, and that a Statement of Overriding Considerations was adopted. Similarly, if Caltrans, as assigned by the FHWA, determines the NEPA action does not significantly impact the environment, Caltrans will issue a Finding of No Significant Impact. If it is determined that the Project is likely to have a significant effect on the environment, an Environmental Impact Statement will be prepared.

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[11] There is 70 feet from the edge of the existing City right-of-way to the future edge of Lincoln Boulevard that would be acquired to build this ramp. The ramp would be 12 feet wide. Therefore, approximately 840 square feet would be needed from APN 4211-015-900.

1.6 Alternatives Considered But Eliminated From Further Discussion

During the development of the Project and Project alternatives discussed above in Chapter 1.4, several alternatives were considered but not carried forward because they did not meet the Project's Purpose and Need or were otherwise not reasonable or feasible. A brief overview of each alternative considered but eliminated is provided below along with the rationale for each alternative being eliminated from further consideration.

An Alternative that Considers Four Through-Lanes in Each Direction

In 2001, an IS/EA was prepared and circulated for a separate project within the same project limits as the Project. That prior project proposed to widen SR-1/Lincoln Boulevard in both directions to four through lanes in each direction between Fiji Way and Jefferson Boulevard. Also, that project would have removed and replaced the Ballona Creek Bridge and the Culver Boulevard overcrossing. An alternative including four through-lanes in each direction would increase vehicular capacity on SR-1/Lincoln Boulevard. However, such an alternative would result in additional right-of-way needs from the adjacent BWER, wider bridges, and additional effects within Ballona Creek, and the resulting increased effects that would result related to biological, cultural, and tribal cultural resources. This alternative was previously considered but not carried forward due to its environmental effects to Ballona Creek and the BWER, as well as lack of support for that alternative from key stakeholders, including CDFW and California Coastal Commission.

An Alternative that Completely Avoids the Ballona Wetlands Ecological Reserve (BWER)

The PDT evaluated different design opportunities that would entirely avoid effects to the BWER and that would keep all Project improvements within existing right-of-way. However, it was found that it was not possible to achieve the Project's purpose to improve traffic operations and to serve transit, bicyclists, and pedestrians while at the same time completely avoiding the BWER. The BWER confines the existing SR-1/Lincoln Boulevard on both sides and thereby can not be entirely avoided while accomplishing the Project's Purpose and Need.

Many design refinements were identified and implemented as part of Alternative 2 in the preliminary design phase to minimize effects to the BWER which include:

- Establishing Caltrans right-of-way at the back of sidewalk instead of at the grading limits to minimize right-of-way requirements from the BWER.
- Steepening fill slope ratios from 4:1 to 2:1 to minimize grading and right-of-way acquisitino from the BWER.

- Modifying the proposed Culver Loop intersection to minimize footprint.

An Alternative with Reduced Lane Widths

The California Coastal Commission requested that an alternative be considered that would avoid effects to the BWER by restriping the road to 10-foot lanes and constructing bicycle lanes and sidewalks entirely within the existing right-of-way using the saved space. This recommendation would not avoid effects to the BWER as providing sufficient space for future transit in the median would still require right-of-way from the BWER.

An Alternative that Limits Permanent Effects to Only Previously Disturbed Areas

California Coastal Commission staff requested that an alternative be considered that uses the existing right-of-way along with only adjacent disturbed areas to satisfy the Project's Purpose and Need. The proposed widening improvements have been designed to minimize the Project footprint and effect only previously disturbed areas to the greatest extent possible.

An Alternative that Realigns SR-1/Lincoln Boulevard to the West

To avoid effects to a jurisdictional feature and potential Environmentally Sensitive Habitat Areas that occur within the Culver Ramp gore area, the PDT considered the desirability of an alternative that would realign SR-1/Lincoln Boulevard to the west. This alternative was determined to be infeasible because it would require more right-of-way acquisition from the BWER than would Alternative 2, particularly south of Ballona Creek where right-of-way is already reserved east of the existing alignment adjacent to the Fountain Park at Playa Vista Apartment Homes and adjacent Playa Vista developments that will generally accommodate the Project.

An Alternative that Constructs a Bridge that Spans Ballona Creek

The PDT considered an alternative that would avoid fill entirely within Ballona Creek. To avoid fill entirely within Ballona Creek would require a design that would entirely span Ballona Creek. The increased span length would require an increase in the bridge structure depth and a raise in the profile of SR-1/Lincoln Boulevard over eight feet in elevation. This would also require that the profile of Culver Boulevard be raised over eight feet in elevation. These changes would increase the Project's grading footprint and effects to the BWER and therefore was eliminated from further consideration.

An Alternative that Constructs a Bridge Over Ballona Creek that Accounts for a Worst-Case Sea Level Rise Scenario

California Coastal Commission staff recommended that the Ballona Creek Bridge be designed based on the latest sea level rise guidance. Alternative 2 involves the construction of a bridge over Ballona Creek designed to account for the worst-case Sea Level rise scenario. Therefore, there is no need for a stand-alone alternative related to this suggestion.

An Alternative that Avoids the Wetland Feature Within The Culver Loop

An alternative was considered that would utilize retaining walls to avoid permanent effects to the wetland feature that is located within the Culver Loop between Culver Boulevard in the north, SR-1/Lincoln Boulevard on the west, and the Culver Loop on the south and east. This alternative was dismissed from further analysis since it would require additional retaining walls that would result in aesthetic effects.

An Alternative that Reconstructs SR-1/Lincoln Boulevard as a Causeway

During the scoping period, comments were received that the Project should consider reconstructing SR-1/Lincoln Boulevard partially or wholly as an elevated causeway to minimize the roadway’s existing and future biological, hydrological, and floodplain effects. The proposed roadway vertical profile has been raised for the majority of the Project limits between Jefferson Boulevard and Fiji Way, where the Project joins the existing roadway improvements, which is consistent with the comment recommendation.

An Alternative that Provides Bicycle and Pedestrian Improvements Only

Implementation of an alternative that would construct bicycle and pedestrian improvements solely along SR-1/Lincoln Boulevard between Fiji Way and Jefferson Boulevard was considered for this Project. This alternative would partially accomplish the Project’s Purpose and Need by improving safety and mobility for bicyclists and pedestrians but would not achieve a consistent roadway geometry as it would not construct an additional southbound lane along SR-1/Lincoln Boulevard and would result in an increase in vehicle miles traveled. Similarly, this alternative would not improve mobility for transit vehicles in the short term and would not help to facilitate future high-quality transit within the project site. Therefore, this alternative was eliminated from further consideration.

An Alternative that Implements Transportation System Management/ Travel Demand Management Improvements Only

A stand-alone alternative featuring Transportation System Management (TSM) and Travel Demand Management (TDM) improvements alone was considered as an alternative for the

Project. Collectively, TSM and TDM describe a series of strategies that can be implemented to maximize the efficiency of the existing transportation system by reducing dependence on single occupant vehicles. TSM and TDM are typically low-cost measures to reduce travel demand and/or improve the utilization of existing transportation facilities. TSM focuses on increasing the person-trip capacity of existing transportation systems through techniques such as restriping roadways for channelization, ramp metering, establishing auxiliary lanes, and providing freeway service patrol. TDM techniques focus on influencing an individual's travel behavior by reducing the demand for single occupant vehicle travel, especially during peak commute periods, including such strategies as preferential parking for carpoolers, teleconferencing, and advanced communication technology. Several TSM strategies have been incorporated into the Project, including the addition of and improvements to bicycle and pedestrian facilities and improvements to signal timing. The Project alternatives have also been crafted to improve transit operations along the corridor in the short term as well as to facilitate future implementation of a higher-quality transit service at some time in the future. However, on their own TSM and TDM strategies would not achieve the Purpose and Need of the Project. Therefore, this alternative was eliminated from further analysis as a stand-alone alternative.

An Alternative That Includes Reversable Lanes

Reversable lanes have been considered in the development of the Project and are not proposed for the following reasons:

- The length of the Project is approximately 2,800 feet with three signalized intersections and is not sufficient for the transitioning of reversible lanes.
- The existing and forecast traffic volumes do not support eliminating the existing southbound lane drop chokepoint. Implementing reversible lanes would only move the chokepoint from one direction of travel to the other direction of travel and would not eliminate the existing operational deficiency.

A Cast-In-Place Prestressed (CIP/PS) Concrete Box Girder Bridge Structure Over Ballona Creek

As part of the Advance Planning Study prepared for the SR-1/Lincoln Boulevard Bridge over Ballona Creek, a CIP/PS concrete slab superstructure was evaluated for the bridge. This type of structure is a feasible structure alternative for the proposed bridge replacement. This alternative would have the same span configuration and structure depth as the PC/PS superstructure that was ultimately selected as part of Alternative 2. However, this alternative would require falsework in the channel during construction, which would increase the duration of construction as compared to the PC/PS option (CNS 2022a). Given these additional construction effects to Ballona Creek, this alternative was dismissed from further consideration.

Driven Concrete Piles Within Ballona Creek

As part of the Advance Planning Study prepared for the SR-1/Lincoln Boulevard Bridge over Ballona Creek, driven concrete piles were considered as an alternative to the 36-inch diameter CIDH concrete piles that were ultimately selected for the bridge. These, concrete piles would result in greater noise than the CIDH concrete piles. Also, battered piles were eliminated from consideration since they are prohibited to be used in abutments subjected to seismic down drag loads pursuant to Caltrans structural design standards (CNS 2022a).

Pier Walls Instead of Multi-Column Pier Bridge Supports Within Ballona Creek

Pier walls were considered, rather than a multi-column pier; however, this was not incorporated into the Project as Caltrans no longer supports the use of pier walls due to their questionable seismic performance (CNS 2022a).

A Four-Span Bridge Over Ballona Creek

A four-span alternative with three piers which would match the existing pier locations was considered. This alternative would maintain the existing channel configuration, and hence would prevent potential for adverse hydraulic effects on the downstream Culver Boulevard Bridge that could result from a change in conditions. However, apart from being more cost-effective, the recommended three-span alternative is being utilized for Alternative 2 in order to eliminate conflicts with the existing timber piles by using a different span configuration. Additionally, reducing the number of piers from the existing three to the proposed two can minimize the effects to the water surface elevation and backwater effect and concrete within the water.

A Cast-In-Place Prestressed (CIP/PS) Concrete Box Girder for Culver Boulevard Bridge

As part of the Advance Planning Study prepared for the Culver Boulevard Bridge over SR-1/Lincoln Boulevard, a CIP/PS concrete slab superstructure was evaluated. This type of structure is a feasible structure alternative for the proposed bridge replacement. However, this alternative would require falsework during construction, which would increase the duration of construction as compared to the PC/PS option (CNS 2022a). Culver Boulevard would be closed during this phase of the Project; therefore, due to this longer construction period, this alternative was dismissed from further consideration.

Driven Concrete Piles for Culver Boulevard Bridge

As part of the Advance Planning Study prepared for the SR-1/Lincoln Boulevard Bridge, driven concrete piles were considered as an alternative to the CIDH concrete piles that were ultimately selected for the bridge. These concrete piles would result in greater noise than the CIDH concrete piles. Also, battered piles were eliminated from consideration since they are prohibited to be used in abutments subjected to seismic down drag loads pursuant to Caltrans structural design standards (CNS 2022a).

Narrower Travel Lanes to Provide a Standard (Wider) Shoulder Along SR-1/Lincoln Boulevard

As part of the development of the Alternative 2 design, Caltrans commented that the placement of flexible posts 2 feet from the edge of travel lanes would reduce the shoulder to 2 feet, which would be below the 8-foot requirement for Conventional 6-lane highways stated in Table 302.1 of the Highway Design Manual. Because the flexible posts and bike lane buffer are critical elements to the Project, Caltrans asked that the PDT evaluate the safety performance of cross-sectional alternatives, such as reducing travel lane widths, that could potentially increase shoulder width while staying within the same footprint. As noted previously, a part of the Project's Purpose and Need is to minimize the Project footprint so it does not exceed the 130-foot minimum cross section needed to accommodate planned future transit along SR-1/Lincoln Boulevard. Therefore, widening the roadway to accommodate the full-standard shoulder width required by the HDM was not considered.

Alternative 2's proposed flexible posts in the shoulder are not the same as having a clear 8-foot roadside; however, the Highway Safety Manual Analysis prepared for the Project determined that the proposed buffered configuration (with 11 feet from traveled way to edge of pavement) would perform safely and is superior to a design that would narrow travel lanes to widen the shoulder (Psomas 2023f).

A Project Alternative That Only Widens For Bicycle Lanes, Sidewalks, and a New Southbound Travel Lane With Minimum Widths That Does Not Accommodate Future Transit

The PDT considered an alternative with a smaller footprint than the 130-foot minimum cross-section that is proposed under Alternative 2. By eliminating the center median and narrowing vehicular travel lanes that are proposed under Alternative 2, permanent right-of-way acquisition could be reduced including partial right-of-way acquisitions from the BWER. This alternative was dismissed given that future transit improvements along the corridor are programmed within regional planning documents. More details provided on planned future transit is provided in Chapter 2.1.2, Consistency with Plans and Programs, and Chapter 2.1.10, Traffic, Transportation, Pedestrian, and Bicycle Facilities. Given that transit improvements along the Project corridor are reasonably foreseeable, the City and Caltrans determined that it was prudent to proceed only with Project alternatives that would accommodate transit. This Project alternative has a further disadvantage in that it would result in multiple direct effects to the BWER and Ballona Creek, in addition to effects associated with CDFW's Ballona Wetlands Restoration Project. First, the Project would be constructed, then later subsequent widening and bridge improvements would be constructed within and adjacent to the BWER and Ballona Creek for the future transit project. Therefore, this alternative would result in greater effects when compared to completing most of the work at once as is proposed under Alternative 2. Later, when the transit project is ready to proceed, all it would take to implement transit would be to reconfigure the striping, add stops, etc. Finally, the City and Caltrans determined that only a 130-foot minimum cross-section would be evaluated since it would be more cost-effective and having one project would help to ensure that transportation improvements are more comprehensively coordinated with other nearby projects including CDFW's restoration plan.

An Alternative that Includes Reconstruction of Fiji Ditch Culvert as a Wildlife Culvert

An alternative was considered that would demolish the existing culvert in the northern portion of the project site and reconstruct it as an enhanced wildlife culvert that would be taller and wider than the existing culvert and would have additional amenities such as a low flow drainage channel, recessed bat roosting structures, and/or critter shelfs. This alternative was dismissed from further analysis since it would require additional temporary disturbance and vegetation clearing within Fiji Ditch, which is a coastal water and ESHA.

Alternatives that Make Improvements to Alternate Corridors

Lincoln Boulevard is the only continuous north/south route connecting Venice, Marina del Rey, Playa Vista, and the Westchester areas between the Pacific Ocean in the west and Centinela Avenue in the east. Therefore, few alternative sites are possible that would accomplish the Project Purpose and Need while also avoiding right-of-way and other environmental effects. In 2001 during previous planning efforts for the corridor, the following improvements to existing north/south corridors were considered but ultimately rejected. The same decision-making rationale is still true in the current condition.

<u>Widening of Pacific Avenue</u>

This alternative would involve widening of Pacific Avenue from Washington Boulevard to Vista del Mar. A benefit of this alternative is that it would entirely avoid the BWER. However, this option would require additional right of way on both sides of Pacific Avenue and a new high-level bridge over the entrance to Marina del Rey as well as over Ballona Creek. This alternative would result in significant residential and community effects, as well high costs relative to its benefits. The traffic on SR-1/Lincoln Boulevard could use this improved Pacific Avenue corridor, thus reducing some traffic congestion on SR-1/Lincoln Boulevard within the project site. However, this alternative is not cost effective and would not reduce projected future congestion levels and congestion related accidents in the project site. Also, it would not improve conditions for pedestrian and bicyclists or transit vehicles along SR-1/Lincoln Boulevard. Therefore, this alternative was eliminated from further consideration.

Widening of Centinela Avenue

The widening of Centinela Avenue, which is an existing north/south arterial street east of SR-1/Lincoln Boulevard, from north Jefferson Boulevard to Venice Boulevard was considered. A benefit of this alternative is that it would entirely avoid the BWER, although it would still require work within Ballona Creek. A primary difference between Centinela Avenue and SR-1/Lincoln Boulevard is that Centinela Avenue terminates at Washington Boulevard in the north and would therefore not provide the same connectivity benefits as improvements along SR-1/Lincoln Boulevard. In addition, this alternative would require additional right of way and would have significant residential and commercial effects, leading to a high Project cost for this alternative. Furthermore, the widening of Centinela Avenue would not serve the Purpose and Need of the Project, including eliminating the southbound lane drop and improving multimodal connectivity and safety in proximity to the SR-1/Lincoln Boulevard Bridge. Therefore, this alternative was eliminated from consideration.

Widening of Inglewood Boulevard

Widening of Inglewood Boulevard was eliminated for the same reasons listed above for Centinela Avenue. Given its distance further east, it would achieve even fewer aspects of the Project's Purpose and Need than improvements to Centinela Avenue would.

Widening of Interstate (I)-405 (San Diego Freeway)

Widening of I-405 was also previously analyzed and dismissed due to right of way constraints, as well as its lack of ability to fulfill the Project Purpose and Need. This alternative would avoid biological and coastal resources; however, it would not be able to provide greater multimodal connectivity between Marina del Rey, Playa del Rey, Westchester, and other coastal communities nearer to SR-1/Lincoln Boulevard.

1.7 Previous Project Proposed within the Project Site

A prior road widening project was previously proposed by Caltrans with similar project limits, and an IS/EA was circulated for that project in 2001. The California Coastal Commission denied that project a Coastal Development Permit and the project lost its funding. This prior project proposed widening SR-1/Lincoln Boulevard from Jefferson Boulevard to Fiji Way to a total of eight to nine lanes, with minimal bicycle and pedestrian improvements.

Based on comments received from the public and agencies during and after the public scoping period for this Project in 2018, it was apparent that there was confusion related to the current Project and the prior project that was proposed in 2001[12]. As shown in Table 1-3 below, the current Project is multimodal in nature and has been designed to have a much smaller impact footprint and less right-of-way acquisition. Furthermore, the current Project is different from the prior project as the current Project would reconstruct the SR-1/Lincoln Boulevard Bridge to accommodate for sea level rise, whereas the project proposed in 2001 did not account for this factor.

Table 1-3 – Comparison of the 2001 Project and the Current Project Along SR-1/SR-1/Lincoln Boulevard

Attribute	Previously Proposed Project (2001)	Current Project
Additional Right-of-Way Required by Each Proposed Project	129,730 sf	89,342 sf (31% reduction)
Right-of-Way Width	160 feet to 174 feet	130 feet
Vehicular Lanes	8 to 9 lanes	6 lanes
Sidewalk	5 feet wide	8 feet wide
Designated Bicycle Facilities	Shoulder: 8 feet wide Buffer: None	11 feet wide Lane – 6 feet wide with 5 feet buffer
Bridge Profile	Matches Existing	Elevated to address sea level rise
Bridge Piers in Ballona Creek	Three	Two
Culver Loop Connection	No sidewalks, high-speed freeway type ramps, bike, and pedestrian conflicts	Signalized pedestrian sidewalk, bike lanes
Coastal Access	No connection between Culver Boulevard and the Ballona Creek Trail	Bicycle and pedestrian connections between Culver Boulevard and the Ballona Creek Trail

sf: square feet
Source: Caltrans 2001a and 2001b, Psomas 2023d.

[12] More information on the Project's CEQA EIR Scoping Process is provided in Chapter 4, Comments and Coordination.

1.8 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required prior to construction of the Project.

Agency	Permits, Licenses, Agreements, Certifications, and Approvals (PLACs)	Status
United States Fish and Wildlife Service (USFWS)	• Section 7 Consultation for Threatened and Endangered Species	• Section 7 consultation would occur after approval of the Final EIR/EA.
National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries)	• Consultation for effects to Essential Fish Habitat and Impact Determinations For Special Status Fish Species	• NOAA will be contacted following circulation of the Draft EIR/EA regarding a final decision on whether formal consultation will be required.
United States Army Corps of Engineers (USACE)	• Section 404 Permit for filling or dredging waters of the United States • Section 408 Authorization for effects to the Ballona Creek Levee	• Application for 404 permit would occur after FED approval in coordination with other Project regulatory permit applications. • Application for 408 permit would be submitted to LACFCD as the non-federal local sponsor for review, approval, and routing to USACE.
Los Angeles County Flood Control District (LACFCD)	• Encroachment Permit for work within LACFCD properties.	• Application would occur after FED approval in coordination with other Project regulatory permit applications.
California Coastal Commission	• Coastal Development Permit (CDP)	• Application for CDP expected after FED approval.
State Lands Commission	• Approval of a lease or other instrument may be necessary to allow for work within tidal and submerged lands managed by the State Lands Commission.	• Coordination would occur during final design to confirm whether a lease or other approval is required from the State Lands Commission. An approval may not be required since Ballona Creek is under fee ownership.

Agency	Permits, Licenses, Agreements, Certifications, and Approvals (PLACs)	Status
California Department of Fish and Wildlife (CDFW)	• 1602 Agreement for Streambed Alteration • Right of Entry Permit (for temporary work within the BWER) • California Endangered Species Act (CESA) Permitting if determined to be needed by CDFW	• Application for 1602 permit would occur after FED approval in coordination with other Project regulatory permit applications. • Application for Right of Entry Permit would occur after FED approval. • CESA consultation would occur after FED approval, if needed.
California Fish and Game Commission	• Transfer-of-Jurisdiction from a Conservation Easement and/or Ecological Reserve[13] (for the proposed transfer of 1.17-acres of the existing BWER in exchange for 1.17-acres of City-owned property elsewhere next to the BWER).	• Coordination would occur throughout final design related to Right-of-Entry Permit and Transfer-of-Jurisdiction and/or right-of-way acquisition.
Wildlife Conservation Board (WCB)	• Transfer-of-Jurisdiction from a Conservation Easement and/or Ecological Reserve[14] (for the proposed transfer of 1.17-acres of the existing BWER in exchange for 1.17-acres of City-owned property elsewhere next to the BWER).	• Coordination would occur throughout final design related to Right-of-Entry Permit and Transfer-of-Jurisdiction and/or right-of-way acquisition.
Los Angeles Regional Water Quality Control Board	• Water Quality Certification	• Application for Section 401 water quality certification expected to be submitted after FED approval.

13 This approval may be required if CDFW approves of the land exchange proposed under Alternative 2. A transfer-of-jurisdiction would not be required if these lands were to be acquired using eminent domain.

14 This approval may be required if CDFW approves of the land exchange proposed under Alternative 2. A transfer-of-jurisdiction would not be required if these lands were to be acquired using eminent domain.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

As part of the scoping and environmental analysis carried out for the Project, the following environmental issues were considered but no adverse affects were identified. As a result, there is no further discussion about these issues in this document.

- **Farmlands/Timberlands:** There are no properties within the project site that are currently utilized for agriculture or forestry purposes, and there is no sign of agricultural activities within the project site since prior to 1963 (NETR Online 2024a). None of the parcels within the project site that are in the City of Los Angeles are zoned for agriculture or forestry (City of Los Angeles 2024a). Some of the parcels west of SR-1/Lincoln Boulevard within Los Angeles County between south of Fiji Way in the north and the middle of Ballona Creek in the south are zoned as A-1-1, Light Agricultural, which allows for agriculture uses including the growing of various types of crops, as well as greenhouses, and raising of cattle; however, these parcels are all within the BWER or within the active channel of Ballona Creek and are not used for agricultural purposes (Los Angeles County 2024a). Furthermore, pursuant to 14 CCR Section 630, agricultural production is not an allowed use within a designated state Ecological Reserve (CCR 2023a). According to the California Important Farmland Finder maintained by the California Department of Conservation (DOC), areas east of Lincoln are mapped as "Urban and Built-Up Land"[15]. Ballona Creek is mapped as "Water"16. Areas adjacent to SR-1/Lincoln Boulevard within the Ballona Creek Ecological Reserve are identified as "Other lands"[17] (DOC 2023a). Therefore, none of the Project alternatives would result in the conversion of any lands identified by the DOC as Prime Farmland, Unique Farmland,

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15 The California DOC describes areas classified as "Urban and Built-Up land" as being occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.

16 The California DOC describes areas classified as "Water" as areas with an extent of at least 40 acres.

17 The California DOC describes areas classified as "Other lands" as land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

or Farmland of Statewide Importance Farmland. Finally, no parcels within the project site are currently under a Williamson Act contract (Los Angeles County Assessor 2024a). Therefore, none of the Project alternatives would affect farmlands.

There are no parcels zoned as forest land, timberland, or as Timberland Production Zones within the project site (City of Los Angeles 2024a, Los Angeles County 2024a). Also, the project site is not near any designated state, federal, or local forests (CPAD 2024a). Furthermore, based on a review of historic aerial imagery, the project site does not contain any parcels devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses (NETR Online 2024a). According to the Natural Environment Study prepared for the Project, there are no areas within the project site that contain large stands of trees that could be extracted as part of a forestry operation. Therefore, none of the Project alternatives would conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. None of the Project alternatives would have any effects, directly, indirectly, or cumulatively to forest lands.

Therefore, none of the Project alternatives would have an effect on agriculture or forestry resources, and none of the Project alternatives could cause or contribute to any cumulative effects on such resources. Accordingly, this resource topic is not discussed further in this document.

- **Wild and Scenic Rivers:** Projects affecting Wild and Scenic Rivers are subject to the National Wild and Scenic Rivers Act (16 United States Code 1271) and the California Wild and Scenic Rivers Act (Public Resources Code Section 5093.50 et seq.). No Wild and Scenic Designated rivers exist within the project site or nearby vicinity (NPS 2024a). The nearest designated river is Sespe Creek, which is over 40 miles to the northwest of the project site. The nearest eligible and suitable wild and scenic river is Big Sycamore River, which is within the Santa Monica Mountains National Recreation Area approximately 33 miles northwest of the project site. Accordingly, this resource topic is not discussed further in this document.

Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential effects of the Project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the Project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the Project alternatives, such as changes in community character, traffic patterns, housing availability, and employment.

State CEQA Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the State CEQA Guidelines. A definition of cumulative impacts under the National Environmental Policy Act (NEPA) can be found in 40 Code of Federal Regulations Section 1508.7.

Environmental Setting

Cumulative Impact Study Area

The study area for the cumulative impact analysis is generally 0.5-mile from the project site unless specified otherwise.

Cumulative impacts are analyzed for the Project alternatives in each chapter of this Draft EIR/EA.

Cumulative Projects

A list of current and reasonably foreseeable projects within the cumulative impact study area was developed, which is provided below at Table 2-1. The cumulative projects were compiled through::

- A review of the cumulative projects that were assumed in the Project's Traffic Analysis Report; A review of the Bi-Weekly Entitlement Case Filings web mapper maintained by Los Angeles City Planning;
- A review of the City of Los Angeles Department of Transportation website;

- A review of the Los Angeles County Public Works and Beaches and Harbors Department websites;
- A review of the Los Angeles World Airports "Projects" webpage;
- A review of the CEQAnet database for nearby jurisdictions;
- A general web search for development within Playa Vista, Marina del Rey, Playa del Rey, Del Rey, Westchester, Mar Vista, Culver City, Venice, and Ballona Creek.
- A review of the cumulative projects lists for other nearby projects (CDFW 2017a).

Table 2-1 – Cumulative Projects Within a Half-Mile of the Project Site

2.1 Human Environment

2.1.1 Existing and Future Land Use

Regulatory Setting

Existing plans/programs related to land use as well as Project consistency with these plans/programs are described below in Chapter 2.1.2.2 and 2.1.2.3 respectively.

Environmental Setting

Existing Land Use

The project site is located in western Los Angeles County along SR-1/Lincoln Boulevard, which is also designated as State Route 1 (SR-1) within the project site. SR-1/Lincoln Boulevard is a major route traversing a northwest to southeast alignment through the Westside of Los Angeles County, connecting major destinations including the city of Santa Monica in the north, and Loyola Marymount University, Otis College of Art and Design and Los Angeles International Airport in the south. SR-1/Lincoln Boulevard within the project site provides a critical and much traversed connection between and amongst the communities of Playa Del Rey, Playa Vista, Westchester, and El Segundo in the south and Marina Del Rey, Del Rey, Venice, Culver City, Mar Vista, and Santa Monica in the north.

Besides the existing SR-1/Lincoln Boulevard, the other primary land use within the project site is the BWER. CDFW manages and maintains primary ownership of most of the 566-acre BWER, with a 24-acre portion owned by the California State Lands Commission (CDFW 2017a). The BWER occurs on the east and west sides of SR-1/Lincoln Boulevard north of Ballona Creek. Also north of Ballona Creek, Culver Boulevard bisects the project site via an overcrossing.

North of Ballona Creek, parcels to the east of SR-1/Lincoln Boulevard are within the City of Los Angeles and are designated within the City's General Plan Land Use Map as Regional Center Commercial General Plan Land Uses, with the exception of the gore area within the Culver Loop area which is designated as High Medium Density Residential (HMDR) (City of Los Angeles 2024a). Parcels located north of Ballona Creek and west of SR-1/Lincoln Boulevard are within the County of Los Angeles and have a General Plan Land Use designation of Open Space-Conservation (OS-C) General Plan Land Use (Los Angeles County 2024a).

Ballona Creek runs through the project site in a northeast to southwest direction within a concrete-sided, soft bottom channel that is bordered on both sides by flood protection levees. The Army Corps of Engineers constructed the Ballona Creek channel in 1937 and they retain oversight and jurisdiction over Ballona Creek as part of the Los Angeles County Drainage Area (LACDA) project, which is a federal flood risk management project. The LACFCD operates and maintains the Ballona Creek channel and levee system by virtue of an easement and by statutory obligation as the non-federal sponsor of the LACDA project (CDFW 2017a).

Downstream (west) of the Ballona Creek Bridge, southeastern half of the creek is located within the City of Los Angeles and the northwestern half of the creek is within unincorporated Los Angeles County. Upstream of the bridge, Ballona Creek is entirely within the City of Los Angeles. The portions of Ballona Creek within the City of Los Angeles are designated as Open Space (OS) General Plan Land Use designation (City of Los Angeles 2022a). The portions within Los Angeles County are designated as Water (W) (Los Angeles County 2024a).

The Ballona Creek Bike Path occurs along the northwestern edge of the creek within the project site within parcels owned by the Los Angeles County Department of Public Works Flood Control District. The Ballona Creek Bike Path is a 7-mile bike path along the bank of Ballona Creek connecting Syd Kronenthal Park in east Culver City to the Marvin Braude Bike Path near Playa Del Rey.

South of Ballona Creek, parcels to the west of the project site are part of the BWER and parcels to the east are developed as multifamily residential, office, and commercial uses. These include the Fountain Park Apartments, Silicon Beach Medical Center, and Water's Edge office development.

Existing land use designations south of Ballona Creek adjacent to the project site include Regional Mixed Commercial to the east and High Medium Residential to the west (City of Los Angeles 2024a).

Photo locations of the project site are provided as Figure 2.1.1-1, and Figure 2.1.1-1a through Figure 2.1.1-1g provide site specific photographs. A Land Use Map showing existing land use designations within the project site is provided as Figure 2.1.1-2. Zoning for parcels within the project site is depicted in Figure 2.1.1-3.

Future Land Use and Development Trends

The project site is partially located within the northern portion of the neighborhood of Playa Vista and was formerly the headquarters of the Hughes Aircraft Company from 1941 to 1985. In 2002, the area was developed as a planned community with residential, commercial, and retail land uses. Playa Vista and the nearby neighborhoods of Santa Monica, Venice, Marina del Rey, Culver City, El Segundo, and Mar Vista have collectively become known as “Silicon Beach” due to the concentration of technology, media, and entertainment businesses that have established there.

Cumulative projects within approximately 0.5-mile of the project site are described in Table 2-1 within Chapter 2.0, Affected Environment. These cumulative projects consist of a wide mix of project types including roadway improvement projects, transit projects, infill apartments/residential projects, park improvement projects, public works projects, and water quality improvements projects. Also, a restoration project is proceeding adjacent to the project site as noted in more detail below.

The Ballona Wetlands Restoration Project, which is located within the BWER and adjacent to the project site, is being led by CDFW in coordination with the Army Corps of Engineers and other agencies. CDFW certified a Final EIR for the Ballona Wetlands Restoration Project in December 2019. A Los Angeles County Superior Court judge recently issued a ruling on the Ballona Wetlands Restoration Project’s Environmental Impact Report EIR litigation. In this decision, CDFW is required to disclose and analyze new flood control design parameters and commit to additional environmental review if performance criteria changes. CDFW decertified the EIR on September 28, 2023, and is now proceeding to revise the document as per the court order. CDFW hopes to have a draft revised EIR available for public comment by Spring 2024 and depending on public input received on the draft revised EIR, a recertified EIR by the end of 2024, a reapproved project, and, barring further litigation, implementation of initial project sequences in 2025. The EIR analyzed a range of restoration alternatives. CDFW selected the most restorative option (“Alternative 1”) but made a commitment to execute the project in phases – which will allow for restoration to begin without having the entire sum of funding in place. By utilizing a phased approach, CDFW will also be able to monitor and evaluate smaller phases of restoration. This phasing allows the restoration to pause, or even halt, and evaluate plant and

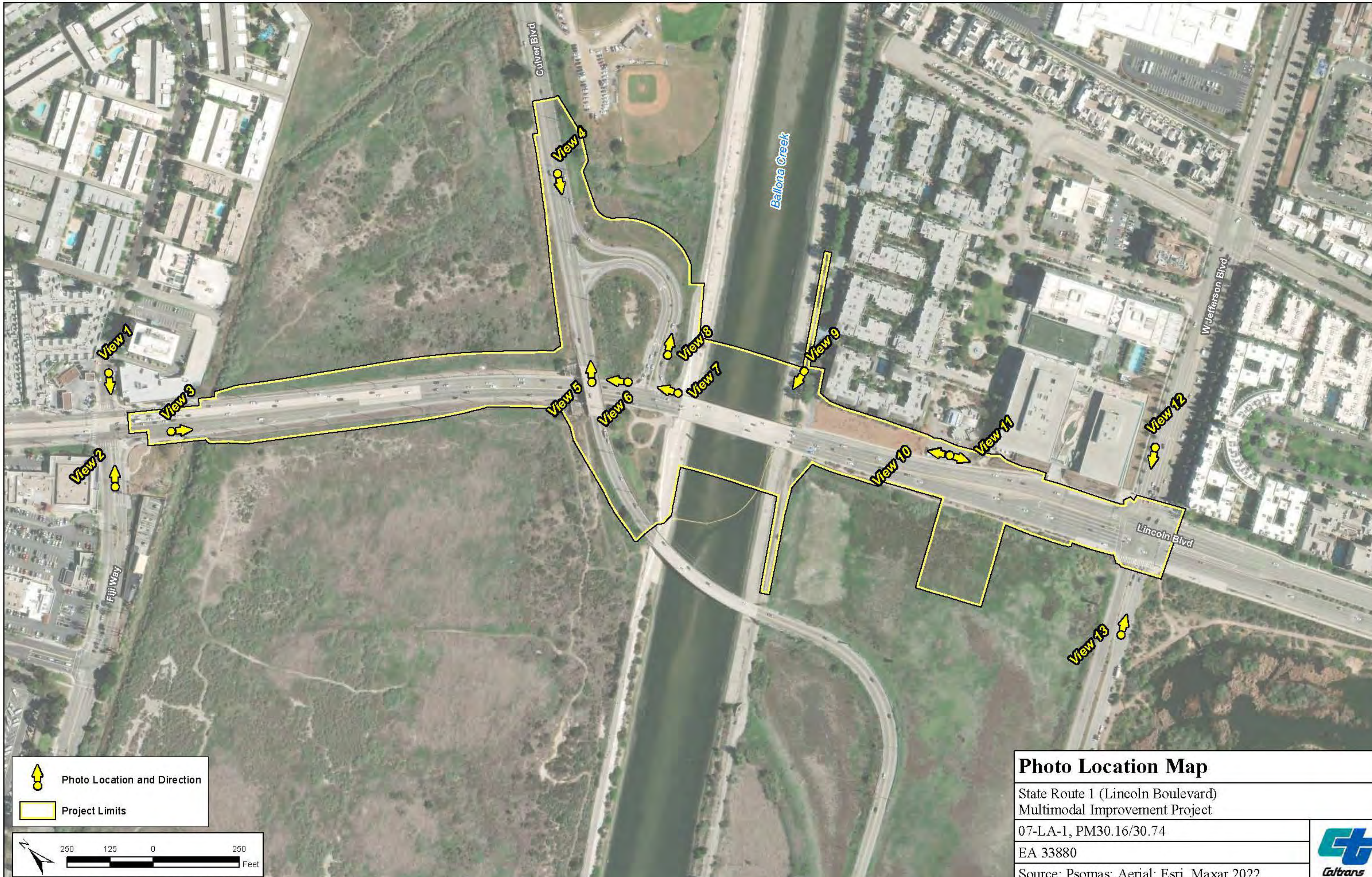


Photo Location Map

State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas; Aerial: Esri, Maxar 2022

Caltrans

Figure 2.1.1-1 - Overview Sheet

View 1: Looking west along Fiji Way east of the intersection with Lincoln Boulevard.

View 2: Looking east along Fiji Way west of the intersection with Lincoln Boulevard with commercial center to the left (north) and Fiji Gateway Park just out of frame to the right (south).

Site Photographs	
State Route 1 (Lincoln Boulevard) Multibodal Improvement Project	
07-LA-1, PM30.16/30.74	Caltrans
EA 33880	
Source: Psomas	

Figure 2.1.1-1a

View 3: View south along Lincoln Boulevard taken south of Fiji Way where the roadway transitions from three southbound lanes down to two.

View 4: Representative photo of traveler's views along westbound Culver Boulevard approaching the Culver Loop and Culver Boulevard Bridge over Lincoln Boulevard.

Site Photographs

State Route 1 (Lincoln Boulevard) Multibodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas

Caltrans

Figure 2.1.1-1b

View 5: Photo looking northeast from the Culver Boulevard Bridge. To the right, Culver Boulevard is shown leading to the Marina Expressway. The left half of the photo shows a portion of the Ballona Wetlands Ecological Reserve in the foreground with apartment buildings in the background.

View 6: Looking north along Lincoln Boulevard towards the Culver Boulevard Bridge with Fiji Way in the distance.

Site Photographs

State Route 1 (Lincoln Boulevard) Multibodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas

Caltrans

Figure 2.1.1-1c

View 7: Photo oriented north towards the Lincoln Boulevard intersection with the Culver Loop.

View 8: Typical view of the Culver Loop.

Site Photographs

State Route 1 (Lincoln Boulevard) Multibodal Improvement Project

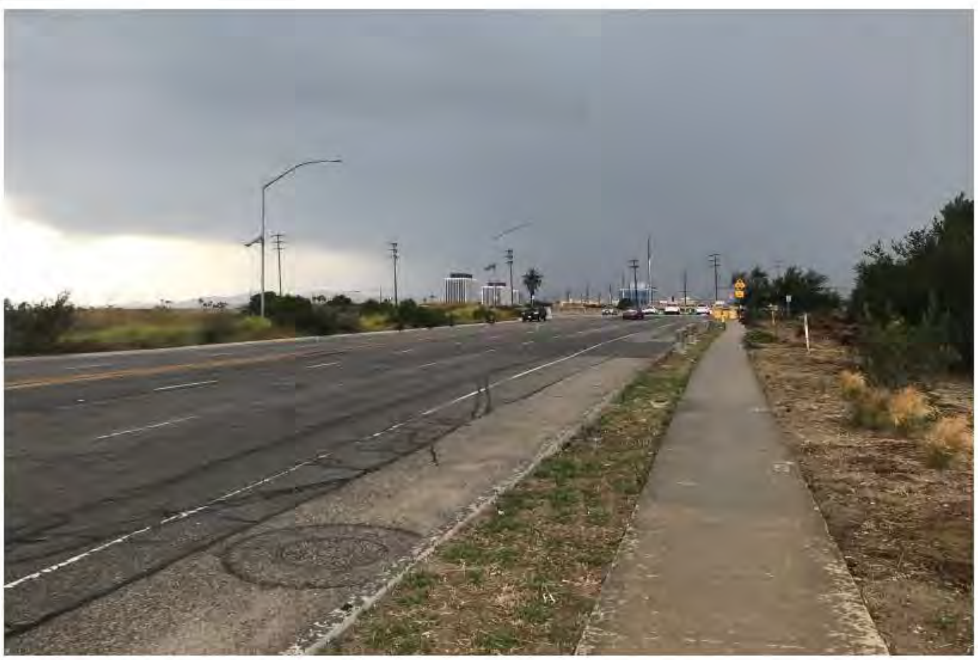
07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas

Figure 2.1.1-1d

View 9: View looking west from the southern embankment of Ballona Creek at the Lincoln Boulevard Bridge.



View 10: Looking north along Lincoln Boulevard towards the Lincoln Boulevard Bridge and the end of the existing northbound sidewalk. A portion of the Ballona Wetlands Ecological Reserve is shown to the left on the west side of Lincoln **Boulevard.**

Site Photographs

State Route 1 (Lincoln Boulevard) Multibodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas

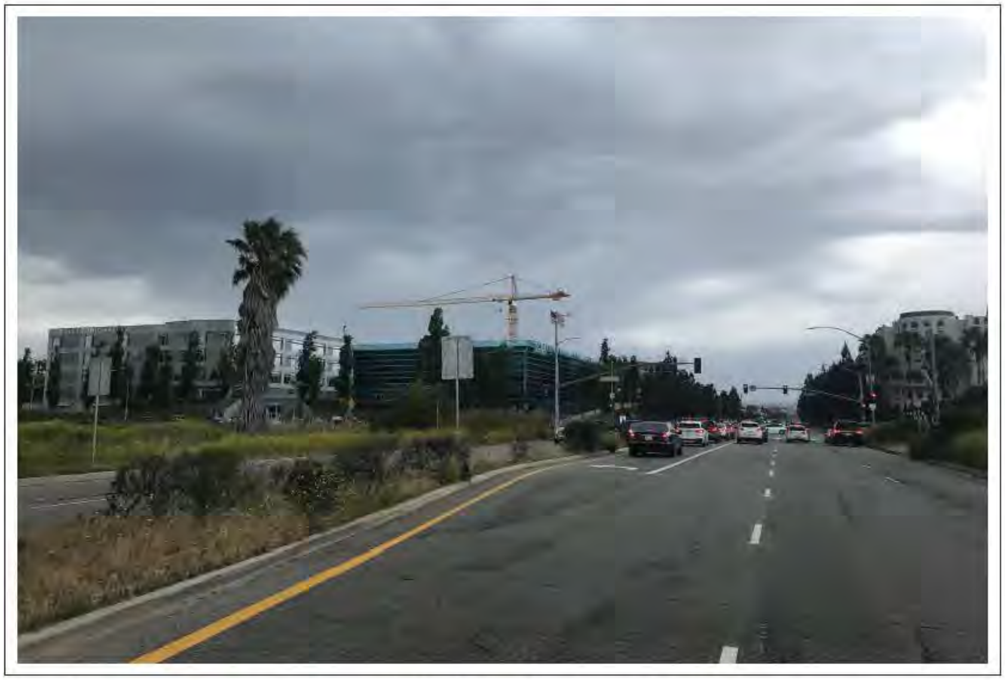
Figure 2.1.1-1e

View 11: Looking south along Lincoln Boulevard towards the intersection with Jefferson Boulevard.

View 12: View west along Jefferson Boulevard towards the intersection with Lincoln Boulevard.

Site Photographs	
State Route 1 (Lincoln Boulevard) Multibodal Improvement Project	
07-LA-1, PM30.16/30.74	Caltrans
EA 33880	
Source: Psomas	

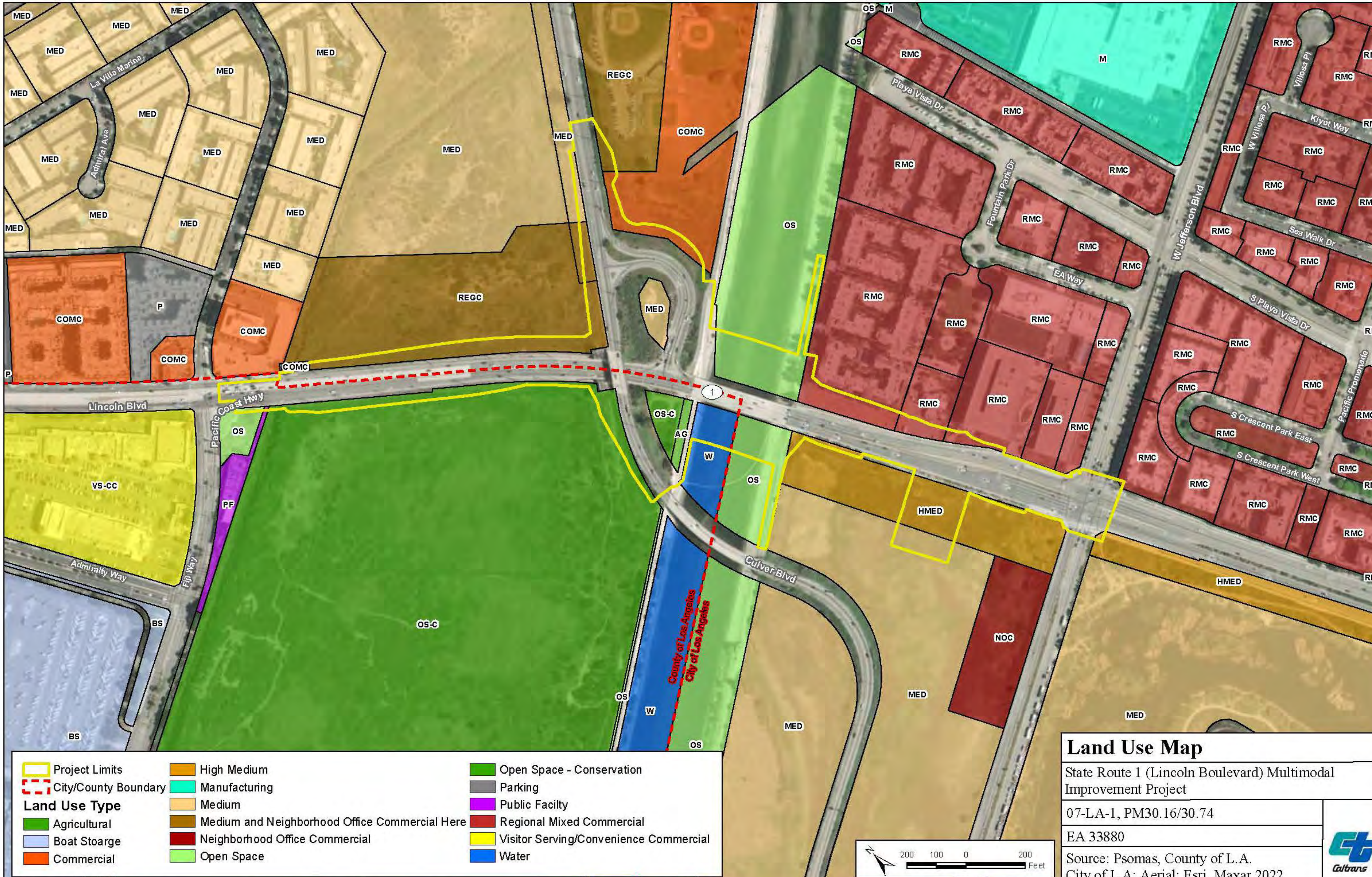
Figure 2.1.1-1f



View 13: View east along Jefferson Boulevard towards the intersection with Lincoln Boulevard and Playa Vista in the background.

Site Photographs	
State Route 1 (Lincoln Boulevard) Multibodal Improvement Project	
07-LA-1, PM30.16/30.74	Caltrans
EA 33880	
Source: Psomas	

Figure 2.1.1-1g


Land Use Map
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Psomas, County of L.A. City of L.A; Aerial: Esri, Maxar 2022
Project Limits
City/County Boundary
Land Use Type
Agricultural
Boat Stoarge
Commercial
High Medium
Manufacturing
Medium
Medium and Neighborhood Office Commercial Here
Neighborhood Office Commercial
Open Space
Open Space - Conservation
Parking
Public Facilty
Regional Mixed Commercial
Visitor Serving/Convenience Commercial
Water
200 100 0 200 Feet
Lincoln Blvd
Pacific Coast Hwy
Culver Blvd
Admiralty Way
Fiji Way
La Villa Marina
Admiral Ave
Playa Vista Dr
Fountain Park Dr
W Jefferson Blvd
EA Way
Sea Walk Dr
S Playa Vista Dr
Kiyot Way
W Villosa Pl
Villosa Pl
S Crescent Park East
S Crescent Park West
Pacific Promenade
County of Los Angeles
City of Los Angeles
Caltrans
Figure 2.1.1-2

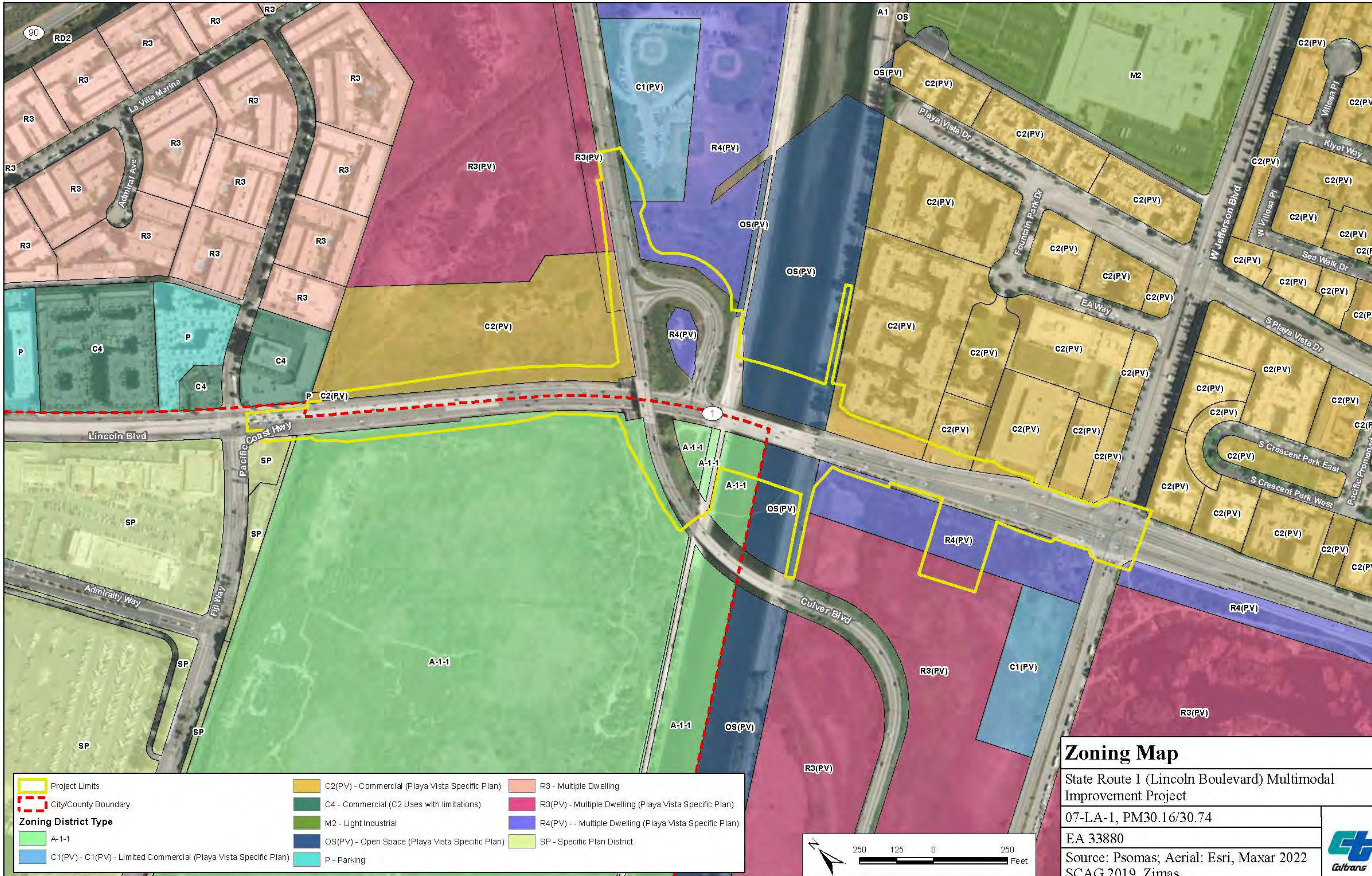

Zoning Map
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Psomas; Aerial: Esri, Maxar 2022
SCAG 2019, Zimas
Caltrans
Project Limits
City/County Boundary
Zoning District Type
A-1-1
C1(PV) - C1(PV) - Limited Commercial (Playa Vista Specific Plan)
C2(PV) - Commercial (Playa Vista Specific Plan)
C4 - Commercial (C2 Uses with limitations)
M2 - Light Industrial
OS(PV) - Open Space (Playa Vista Specific Plan)
P - Parking
R3 - Multiple Dwelling
R3(PV) - Multiple Dwelling (Playa Vista Specific Plan)
R4(PV) - - Multiple Dwelling (Playa Vista Specific Plan)
SP - Specific Plan District
250 125 0 250
Feet
Lincoln Blvd
Pacific Coast Hwy
Culver Blvd
Admiralty Way
Fiji Way
La Villa Marina
Admiral Ave
Playa Vista Dr
Fountain Park Dr
EA Way
W Jefferson Blvd
S Playa Vista Dr
S Crescent Park East
S Crescent Park West
Pacific Promenade
Sea Walk Dr
Kiyot Way
Villosa Pl
W Villosa Pl

Figure 2.1.1-3

animal resources to ensure appropriate protective actions and implementation of adaptive management. (CDFW 2017a, 2022a, 2022b, 2022c, 2024a).

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Since Alternative 1 would involve no construction, there would be no short-term effects related to land use. No temporary construction easements to any existing land uses would result from Alternative 1.

Operational Effects

Since Alternative 1 would involve no improvements, there would be no partial right-of-way acquisition required under this alternative.

Cumulative Effects

Since Alternative 1 would involve no construction or operational effects, Alternative 1 has no potential to contribute to cumulative effects related to existing and future land use.

Alternative 2 – Base Alternative

Construction Effects

Alternative 2 would result in temporary construction easements as described in Chapter 2.1.7, Relocation and Real Property Acquisition. These easement areas would be restored in coordination with property owners.

Operational Effects

Alternative 2 would require partial right-of-way acquisitions as described in Chapter 2.1.7, Relocation and Real Property Acquisition. These partial acquisitions would not result in the displacement of any businesses or residents.

Existing plans/programs related to land use and an evaluation of Alternative 2 consistency with these plans/programs are provided in Chapter 2.1.2.2 and 2.1.2.3 respectively.

Cumulative Effects

Alternative 2 would require partial right-of-way acquisitions from several parcels. The incorporation of these areas for transportation purposes would technically be is inconsistent with the underlying zoning and land use designations for these parcels which generally do not allow for roadway uses. However, CDFW would be compensated for areas being acquired from the BWER, which would help to maintain the character and quality of the BWER. Overall, with implementation of Alternative 2 and the Ballona Wetlands Restoration Project, future land uses within the project site would be more comprehensively planned when compared to existing conditions and with implementation of Alternative 1.

Portions of private properties would be acquired, which would marginally decrease the amount of setback these properties have from the roadway; however, overall Alternative 2 would not require any displacements of businesses or residents. Also, local City planning documents and easements have previously identified most of these partial right of way areas for future transportation uses. Therefore, operation of Alternative 2 as proposed by Alternative 2 in combination with other cumulative projects would result in minimal effects related to existing and future land use.

During construction, Alternative 2 would result in temporary construction activities and in the temporary disturbance of temporary construction easement areas. These areas would be re-landscaped in consultation with their owners; therefore, there would be minimal effects related to existing land use during construction of Alternative 2. Implementation of Alternative 2 and other cumulative projects would result in ongoing, intermittent, and sometimes overlapping construction activities within and adjacent to the project site. These activities are common for urban areas and therefore would not substantially alter the character of existing land uses in the project vicinity. Therefore, no substantial cumulative effects would result from Alternative 2 and other cumulative projects.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. This parcel is an open space land use; therefore, Alternative 2A would reduce construction effects to open space land uses. Otherwise, Alternative 2A would result in the same construction effects to existing and future land uses as Alternative 2.

<u>Operational Effects</u>

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER and the west side of SR-1/Lincoln Boulevard north of

Culver Boulevard. Otherwise, Alternative 2A would result in the same operational effects to existing and future land uses as Alternative 2.

Cumulative Effects-

Under Alternative 2A, cumulative effects related to existing and future land use would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard and contains a portion of Fiji Ditch. Both properties are open space land uses with drainage facilities within them. Therefore, Alternative 2B would reduce construction effects to open space land uses. Otherwise, Alternative 2B would result in the same construction effects to existing and future land uses as Alternative 2.

Operational Effects

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard and contains a portion of Fiji Ditch. Both properties are open space land uses with drainage facilities within them. Therefore, Alternative 2B would reduce effects to open space land uses when compared to Alternative 2. Otherwise, Alternative 2B would result in the same operational effects to existing and future land uses as Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to existing and future land use would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and identified as open space land uses. Therefore, Alternative 2C would increase temporary construction effects to open space land uses when compared to Alternative 2. Otherwise, Alternative 2C would result in the same construction effects to existing and future land uses as Alternative 2.

Operational Effects

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER and identified as open space land uses. In the future, this area would be converted to be used as a 12-foot-wide, two-lane bicycle/pedestrian path. This would be similar to the Ballona Wetlands Restoration Project at this location. The proposed 12-foot path would be 8-feet narrower than the 20-foot-wide path that CDFW notes in their restoration plan for just north of this location, but CDFW would not have to pay for or maintain the bridge. As there would be no separate bicycle and pedestrian facilities, bicyclists and pedestrians would jointly utilize the two-lane, 12-foot path along the bridge under Alternative 2C, in contrast to the separated and buffered bicycle and pedestrian paths that are shown in CDFW's Ballona Wetlands Restoration Project public access and trails documentation. Given that the additional parcels that would be acquired from under Alternative 2C are open space land uses, Alternative 2A would increase operational effects to open space land uses when compared to Alternative 2. Otherwise, Alternative 2C would result in the same operational effects to existing and future land uses as Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to existing and future land use would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would be the same as Alternative 2 with the exception that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900. Given that this parcel is an open space land use, Alternative 2D would increase temporary construction effects to open space land uses when compared to Alternative 2. Otherwise, Alternative 2D would result in the same construction effects to existing and future land uses as Alternative 2.

<u>Operational Effects</u>

Alternative 2D would require additional grading and permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900 that would not be constructed under Alternative 2, which is a part of the BWER and an open space land use. If Alternative 2D were to be implemented, approximately 840 square feet of additional permanent right-of-way would be required from APN 4211-015-900. Under Alternative 2D, the City would own and manage the entire ramp. Partial acquisition areas from the BWER would be compensated for in the same manner and at the same rate as is specified for Alternative 2. Given that the additional parcel that would be acquired from under Alternative 2D is an open space land use, Alternative 2D would increase operational effects to open space land uses when compared to Alternative 2. Otherwise, Alternative 2C would result in the same operational effects to existing and future land uses as Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2D, cumulative effects related to existing and future land use would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are applicable to this resource topic.

2.1.2 Consistency with State, Regional, and Local Plans and Programs

Regulatory Setting

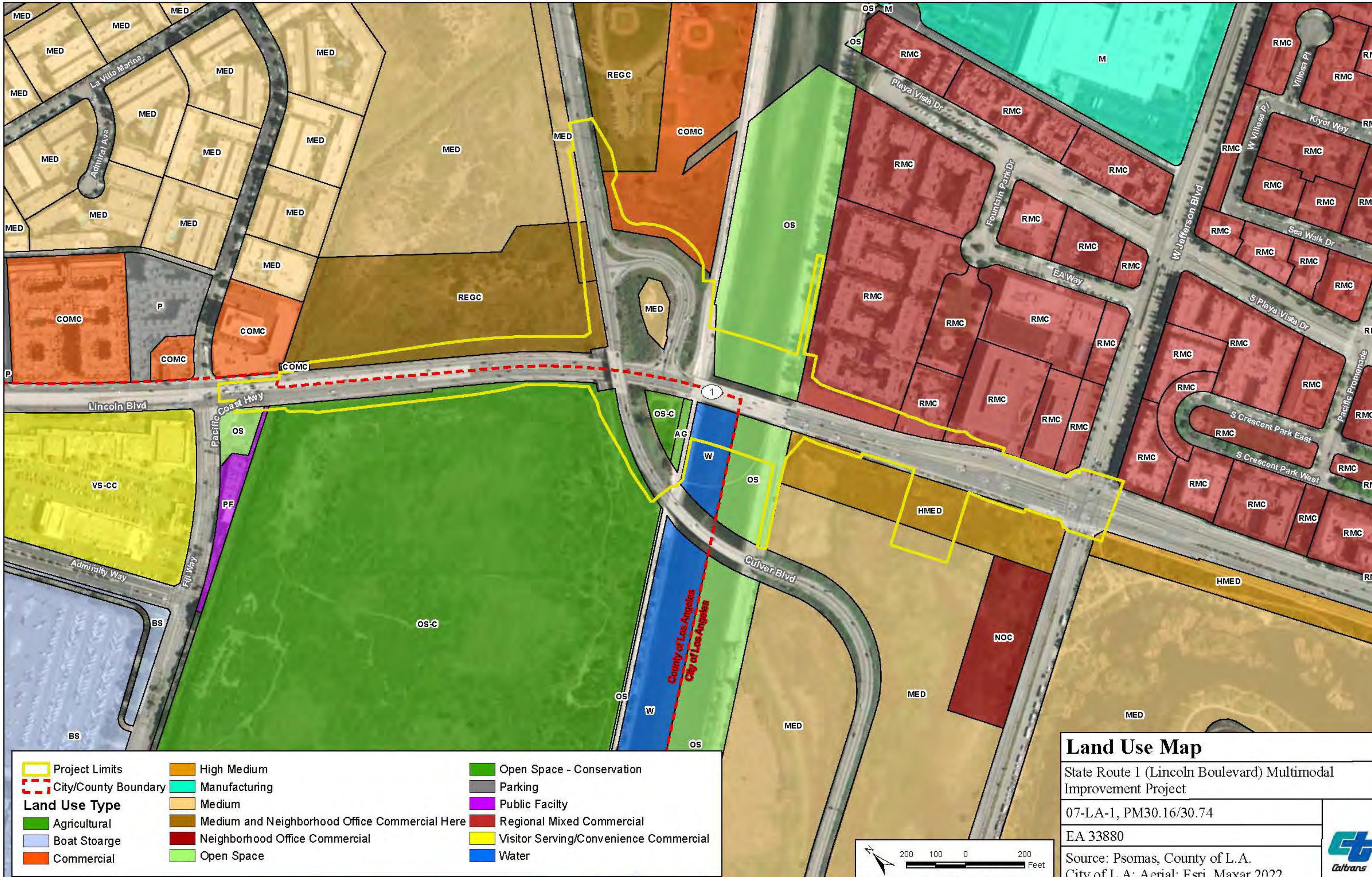
Existing plans/programs and Project consistency with these plans/programs are described in this section. Local and Regional Plans applicable to the Project are depicted in Figure 2.1.2-1.

Environmental Setting

Federal Transportation Improvement Program (FTIP) and the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The Federal Transportation Improvement Program (FTIP) is a federally mandated four year program of all surface transportation projects that will receive federal funding or are subject to a federally required action. The FTIP is a comprehensive listing of such transportation projects proposed over a six-year period. As the metropolitan planning organization for the region, SCAG is responsible for developing the FTIP for submittal to Caltrans and the federal funding agencies. The FTIP for the SCAG region is developed in partnership between the six county transportation commissions of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura, as well as Caltrans Districts 7, 8, 11, 12, and Headquarters. This listing identifies specific funding sources and fund amounts for each project. It is prioritized to implement the region's overall strategy for providing mobility and improving both the efficiency and safety of the transportation system, while supporting efforts to attain federal and State air quality standards for the region by reducing transportation related air pollution. Projects in the FTIP include highway improvements, transit, rail and bus facilities, high occupancy vehicle lanes, high occupancy toll lanes, signal synchronization, intersection improvements, freeway ramps, non-motorized projects, bicycle, and pedestrian The FTIP must include all federally funded transportation projects in the region, as well as all regionally significant transportation projects for which approval from federal funding agencies is required, regardless of funding source. The projects in the FTIP have been found to be consistent with SCAG's approved Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2022a).

The Project has been included in and is consistent with the 2023 FTIP, which is the latest FTIP that has been adopted by SCAG (SCAG 2022b). The Project is identified therein as FTIP ID LA0G1714. The Project was added as part of FTIP Amendment 23-00. The FTIP describes the Project as: "*Improve circulation and safety along Lincoln Bl by constructing an additional southbound lane approximately 1,800 ft, installing sidewalks and bicycle lanes, and other improvements along the 0.61 mile segment of Lincoln Bl between Jefferson Bl and Fiji Wy. In each direction, replace Lincoln Bl Bridge and Culver Bl Bridge to include three 12 ft travel lanes, 21 ft center median, and 2 ft lane buffers, 8 ft shoulders including 6 ft bicycle lanes, 6 ft*



La Villa Marina
Admiral Ave
Playa Vista Dr
Fountain Park Dr
W Jefferson Blvd
W Villosa Pl
Villosa Pl
Kiyot Way
Sea Walk Dr
EA Way
S Playa Vista Dr
Pacific Promenade
S Crescent Park East
S Crescent Park West
Lincoln Blvd
Pacific Coast Hwy
Admiralty Way
Fiji Way
Culver Blvd
County of Los Angeles
City of Los Angeles
MED
REGC
COMC
OS
M
RMC
P
MED
OS-C
AG
W
PF
VS-CC
BS
HMED
NOC
Project Limits
City/County Boundary
Land Use Type
Agricultural
Boat Stoarge
Commercial
High Medium
Manufacturing
Medium
Medium and Neighborhood Office Commercial Here
Neighborhood Office Commercial
Open Space
Open Space - Conservation
Parking
Public Facilty
Regional Mixed Commercial
Visitor Serving/Convenience Commercial
Water
200 100 0 200 Feet
Land Use Map
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Psomas, County of L.A. City of L.A; Aerial: Esri, Maxar 2022
Caltrans

Figure 2.1.1-2

sidewalks, and 1-ft edge barriers." The listing within the FTIP is consistent with the current scope of improvements and project limits for Alternative 2.

The Project is also included in the SCAG's Connect SoCal2024 RTP/SCS, which is the latest RTP/SCS adopted by SCAG. The listing within the 2024 RTP/SCS is consistent with the current scope of improvements and project limits for Alternative 2.

Both the FTIP and RTP listings can be found in Appendix C.

The Project is listed in SCAG's 2024 RTP/SCS as an "FTIP Project" with an identifier of RTP ID LA0G1714. The Project is described therein as: "*improve circulation and safety along Lincoln Bl by constructing an additional southbound lane approximately 1,800 feet, installing sidewalks and bicycle lanes, and other improvements along the 0.61 mile segment of Lincoln Bl between Jefferson Bl and Fiji Wy. In each direction, replace Lincoln Bl between Jefferson Bl and Fiji Wy. In each direction, replace Lincoln Bl Bridge and Culver Bl Bridge to include three 12 ft travel lanes, 21 ft center median, and 2 ft lane buffers, 8 ft shoulders, including 6 ft bicycle lanes, 6 ft sidewalks, and 1-ft edge barriers"*(SCAG 2024a).

The Project is also listed in SCAG's 2024 RTP/SCS as an "unconstrained project" with an identifier of RTP ID S1160154. The Project is described therein as: "*Lincoln Bl – Proposed cycle track: Lincoln Bl from Jefferson Bl to Fiji Way. This project would be a feature of the reconstruction of the Lincoln Bl Ballona Creek Bridge Project proposed as an element of the Westside Mobility Plan"* (SCAG 2024a).

The Project is also listed in the 2024 RTP/SCS as an "unconstrained project" with identifiers of RTP ID S1160178 and S1120157. The Project is described therein as: "*Partnering with Caltrans and LA County, improve Lincoln Bl between Jefferson Bl and Fiji Way, incl. removing existing bottleneck by replacing existing bridge to provide a wider bridge with an additional SB lane, transit lanes, and on-street bike lanes"* (SCAG 2024a).

Also, as described in more detail within Chapter 2.1.10, Transportation, there are future plans for potential transit improvements along SR-1/Lincoln Boulevard north, south, and within the project site. These future potential projects are listed within the 2024 RTP/SCS as "unconstrained projects". The Project's alternatives have been developed to accommodate these future potential projects based on that best available information.

City of Los Angeles General Plan

The City's General Plan provides the structure for all planning and land use activities in the City. It articulates the City's vision and goals in the broadest terms.

The City's General Plan contains the following elements: Framework; Land Use; Air Quality; Conservation; Health; Safety; Mobility; Infrastructure Systems; Open Space; Public Facilities and Services; Noise; and Housing. Applicable policies from these elements are evaluated below in Table 2.1.2-1.

The City's 35 Community Plans elaborate the direction set by the General Plan. Collectively, these Community Plans compose the Land Use Element of the General Plan. Currently, the Community Plans for four areas in the Westside of Los Angeles are being updated, which include the Community Plans for West Los Angeles, Venice, Palms-Mar Vista – Del Rey, and Westchester-Playa del Rey (City of Los Angeles 2022b, 2022f, 2022g). These community plans cover portions of the project site. During development of the Draft EIR/EA, a representative from the Project team communicated with appropriate City planning staff at the City so they were informed of the Project (City of Los Angeles 2022f, 2022g, 2022h, 2022i). The two applicable community plans are discussed below, which include the Palms – Mar Vista – Del Rey Community Plan and the Westchester – Playa del Rey Community Plan.

The City is in the process of preparing a comprehensive update to the City's General Plan known as "OurLA" that will guide the physical and economic future of Los Angeles through the year 2040. OurLA aims to chart a course for the City's growth and change over the coming decades, tackling issues related to land use and economic development, water and energy, parks and open space, housing, mobility, air quality, and historic preservation (City of Los Angeles 2022c).

City of Los Angeles – Mobility Plan 2035

Adopted in August 2015, Mobility Plan 2035 is the circulation element of the City of Los Angeles General Plan (City of Los Angeles 2016). The purpose of the Mobility Plan 2035 is to present a guide to the further development of a citywide transportation system which provides for the efficient movement of people and goods. The Mobility Plan 2035 recognizes that primary emphasis must be placed on maximizing the efficiency of existing and proposed transportation infrastructure through advanced transportation technology, through reduction of vehicle trips, and through focusing growth near public transit. In addition, the Mobility Plan 2035 sets forth street designations and related standards. A listing of street types with descriptions and generalized cross sections for each designation is included in the Complete Street Design Guide.

City of Los Angeles – Westside Mobility Plan

The City of Los Angeles adopted the Westside Mobility Plan in 2018 (City of Los Angeles 2018a). The Westside Mobility Plan is a transportation blueprint for the Westside of the City with strategies for multiple transportation choices, north-south rail connections, and parking solutions over a 25-year period. A primary objective of the Westside Mobility Plan is to increase the passenger-carrying capacity and efficiency of the transportation system through multimodal solutions, including transit, bicycle, and pedestrian friendly facilities. The Westside Mobility Plan includes three main components, which are described below:

- **Development Impact Fees –** The Westside Mobility Plan broadens and increases development fees, ensuring that developers help foot the bill for the transportation infrastructure needed to support housing and jobs on the Westside.
- **Multimodal Project Lists –** The Westside Mobility Plan updated City project lists from the 1990s and includes a list of potential future projects to install new signals, fix bottlenecks, improve rapid transit service, launch new shuttles and circulator services, improve safe routes for bicycling and walking, and calm neighborhood cut-through traffic. Multimodal improvements to SR-1/Lincoln Boulevard within the Project limits are listed in the Westside Mobility Plan's project list.
- **Livable Boulevard Streetscape Plans –** The Westside Mobility Plan includes funding for community-supported landscaping, pedestrian amenities, and beautification projects along Pico Boulevard, Venice Boulevard, Centinela Avenue, and Motor Avenue.

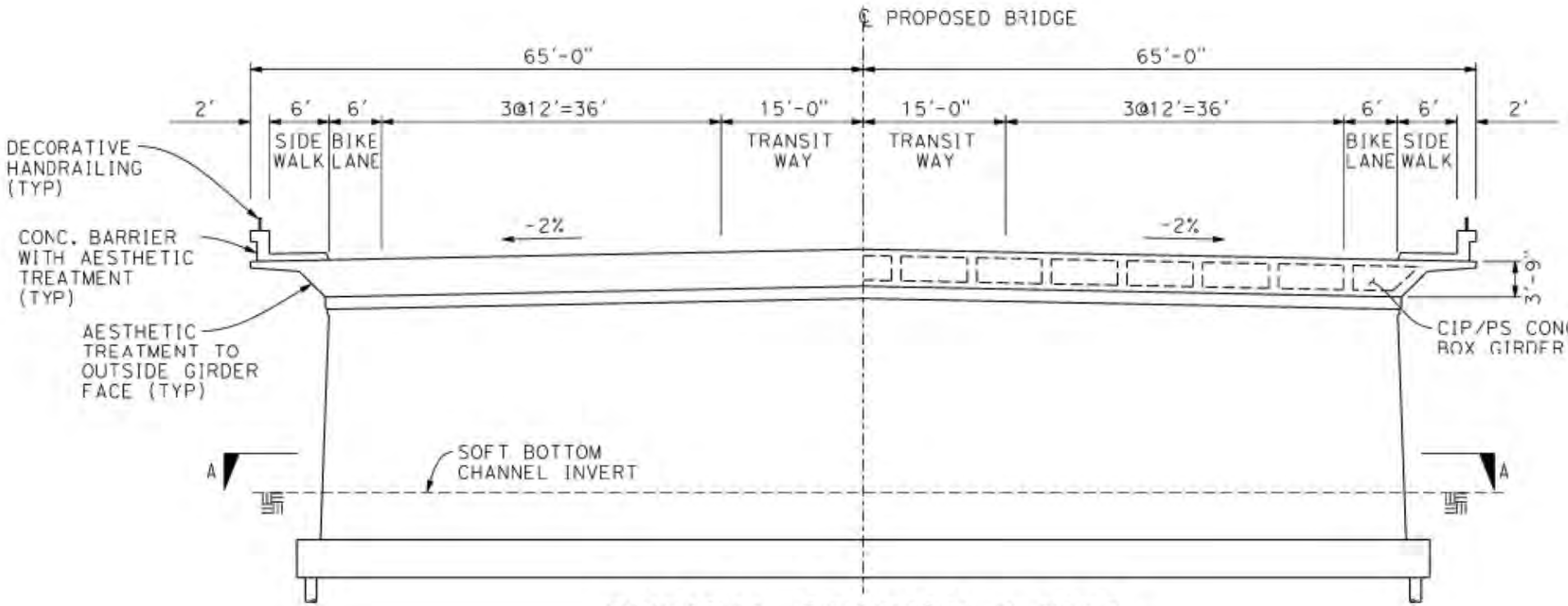
Lincoln Bridge Feasibility Study

A Lincoln Bridge Feasibility Study was prepared for the City as part of the development of the Westside Mobility Plan (STV and Fehr & Peers 2013a). The feasibility study took an initial look at ways of improving mobility along SR-1/Lincoln Boulevard while also minimizing environmental effects. The feasibility study included an evaluation of transit concepts that could potentially be implemented along SR-1/Lincoln Boulevard including Bus Rapid Transit (BRT) and At Grade Light Rail Transit. The 130-foot-wide SR-1/Lincoln Boulevard Bridge would provide space for future transit as planned for in the feasibility study and as assumed in the Westside Mobility Plan overall. The conceptual cross-section from the feasibility study is provided as Figure 2.1.2-2.

Vision Zero Los Angeles

A citywide Vision Zero initiative started with Executive Directive No. 10, which was executed by former Mayor Eric Garcetti in August 2015. Vision Zero is a road safety policy that promotes smart behaviors and roadway design that anticipates mistakes such that collisions do not result in severe injury or death. In this regard, it promotes a culture of shared responsibility, where both designers and policymakers, not just the users, are held accountable for the deaths on our streets.

- Reduce citywide traffic deaths by 20 percent by 2017, prioritizing pedestrian deaths involving older adults and children



TYPICAL SECTION @ PIER

Typical Section of the Proposed Lincoln Boulevard Bridge Over Ballona Creek from Lincoln Bridge Feasibility Study

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: STV Incorporated, Fehr & Peers 2013

Figure 2.1.2-2

- Eliminate traffic deaths citywide by 2025

Key principles of Vision Zero as articulated in the 2015 Vision Zero Los Angeles plan include the following (City of Los Angeles 2015a, 2018b):

- Traffic Deaths are preventable and unacceptable.
- Human error is inevitable and unpredictable.
- Engineering, education, enforcement, evaluation, and equity are essential to a safe system.
- Human life takes priority over other objectives of the road system our streets.
- Speed is a fundamental predictor of crash survival.
- Government policies at all levels should be coordinated to promote safety as the highest priority.

City of Los Angeles – Los Angeles Coastal Transportation Corridor Specific Plan (ZI-1874)

Most of the project site is within the Coastal Transportation Corridor Specific Plan, with the exception of the northwestern portion of the project site which is outside of the City of Los Angeles within unincorporated Los Angeles County.

The Coastal Transportation Corridor Specific Plan originally went into effect in September 1993 and was subsequently amended effective June 2019 (City of Los Angeles 2019a). The Coastal Transportation Corridor Specific Plan established a transportation mitigation fee program that is applicable to all lots located in whole or in part within the Specific Plan area.

City of Los Angeles – Playa Vista (Area B) Specific Plan (ZI-1318)

Areas south of Ballona Creek and west of SR-1/Lincoln Boulevard are within the Playa Vista (Area B) Specific Plan (City of Los Angeles 1990a). The Area B Specific Plan regulates all development including use, height, density, and other factors in order that it be compatible in character with the existing community. Parcels along the west side of SR-1/Lincoln Boulevard north of Jefferson Boulevard and south of Ballona Creek Channel are shown in the Area B Specific Plan as R4(PV) residential zone land use designation; however, these parcels are all within the BWER[18]. The Area B Specific Plan depicts that the existing alignment of Culver

[18] The specific plans for Playa Vista did not anticipate and have not yet been amended to acknowledge the State’s purchase and the private donation of portions of these specific plan areas as part of the BWER.

Boulevard west of SR-1/Lincoln Boulevard would be realigned in combination with the proposed addition of Falmouth Avenue.

City of Los Angeles – Playa Vista (Area C) Specific Plan (ZI-1319)

Areas north of Ballona Creek and east of SR-1/Lincoln Boulevard are within the Area C Specific Plan (City of Los Angeles 1990b). The Area C Specific Plan regulates all development including use, height, density, and other factors in order that it be compatible in character with the existing community. The Area C Specific Plan identifies areas within the project site that are east of SR-1/Lincoln Boulevard, south of Fiji Way, and north of Culver Boulevard as C2 (PV) commercial land uses. All of these parcels are within the BWER. The Area C Specific Plan shows two pedestrian bridges proposed within the project site, one along SR-1/Lincoln Boulevard between Fiji Way and Culver Boulevard and the second over Culver Boulevard east of SR-1/Lincoln Boulevard. The Area C Specific Plan also shows a proposed Bay Street bridge over Ballona Creek Channel that would connect to Culver Boulevard just east of the project site.

City of Los Angeles – Playa Vista (Area D) Specific Plan (ZI-1320)

Areas south of Ballona Creek and east of SR-1/Lincoln Boulevard are within Area D Specific Plan (City of Los Angeles 2004b). The Playa Vista (Area D) Specific Plan regulates all development including use, height, density, and other factors in order that it be compatible in character with the existing community. The Area D Specific Plan identifies areas within the project site that are east of SR-1/Lincoln Boulevard, south of the Ballona Creek channel, and north of Jefferson Boulevard as C2 (PV) commercial zone. Similar to the Area C Specific Plan, the Area D Specific Plan shows an additional road and bridge over Ballona Creek that would occur east of SR-1/Lincoln Boulevard connecting to Jefferson Boulevard to Culver Boulevard identified as Playa Vista Drive.

City of Los Angeles – Palms – Mar Vista – Del Rey Community Plan

Areas north of Ballona Creek on the east side of SR-1/Lincoln Boulevard are within the Palms-Mar Vista-Del Rey Community Plan (City of Los Angeles 1997). This plan is currently going through an update. A conceptual Project plan was provided to the City’s points of contact for this community plan in November 2022 to ensure they were aware of the Project as they update the plan. The community plan includes background on the community, an evaluation of key issues and opportunities, land use policies and programs, and urban design policies for the plan area. This community plan identifies SR-1/Lincoln Boulevard within the project site as a Boulevard I and Culver Boulevard within the project site as an Avenue I.

City of Los Angeles – Westchester – Playa del Rey Community Plan

Areas south of Ballona Creek on both sides of SR-1/Lincoln Boulevard are within this community plan area, which includes the neighborhoods of Westchester, Playa del Rey, and Playa Vista. The Westchester - Playa del Rey Community Plan currently in effect was adopted in 2004 (City of Los Angeles 2004a). This plan is currently going through an update. A conceptual plan depicting the proposed Project was provided to the City's points of contact for this community plan in November 2022 to ensure they were aware of the Project as they update the plan. The community plan includes background on the community, an evaluation of key issues and opportunities, land use policies and programs, and urban design policies for the plan area. This community plan identifies SR-1/Lincoln Boulevard within the project site as a Boulevard I, Jefferson within the project site as a Boulevard II, and Culver Boulevard west of the project site as an Avenue III Modified Scenic.

City of Los Angeles Municipal Code

The City of Los Angeles Municipal Code is a compilation of the City's ordinances related to a variety of topics including the following which relate to the Project: zoning (Chapter I); public safety and protection (Chapter V); public works and property (Chapter VI); transportation (Chapter VII); traffic (Chapter VIII); building regulations (Chapter IX); noise regulation (Chapter XI); water conservation (Chapter XII); and environmental protection (Chapter XIX) (City of Los Angeles 2022d).

Los Angeles County – General Plan (2035)

The Los Angeles County General Plan provides the policy framework and establishes the long-range vision for how and where the unincorporated County will grow through the year 2035 (Los Angeles County 2022b).

The County's General Plan contains the following elements: Land Use; Mobility; Air Quality; Conservation and Natural Resources; Parks and Recreation; Noise; Safety; Public Services and Facilities; Economic Development; and Housing.

- The Land Use Element of the County's General Plan designates land uses, and provides strategies and planning tools to facilitate and guide future development and revitalization efforts.
- The Mobility Element of the County's General Plan provides an overview of the transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The Highway Plan and the Bicycle Master Plan are sub-components of the Mobility Element.

- The Air Quality Element of the County's General Plan summarizes air quality issues and outlines the goals and policies that will improve air quality and reduce greenhouse gas emissions. The 2045 CAP is a sub-component of the Air Quality Element.
- The Conservation and Natural Resources Element of the County's General Plan guides the long-term conservation of natural resources and preservation of available open space areas.
- The Parks and Recreation Element of the County's General Plan plans and provides for an integrated parks and recreation system that meets the needs of residents.
- The Noise Element of the County's General Plan reduces and limits the exposure of the general public to excessive noise levels. The Noise Element sets the goals and policy direction for the management of noise.
- The purpose of the Safety Element of the County's General Plan is to reduce the potential risk of death, injuries, property damage, economic loss, and social dislocation resulting from natural and human-made hazards.
- The Public Services and Facilities Element of the County's General Plan promotes the orderly and efficient planning of public services and facilities and infrastructure in conjunction with development and growth.
- The Economic Development Element of the County's General Plan outlines economic development goals, and provides strategies that contribute to economic well-being.
- The Housing Element of the County's General Plan analyzes and plans for existing and future housing needs. The Housing Element addresses the housing needs of all income levels and accommodates a diversity of housing types and special needs.

Los Angeles County – Bicycle Master Plan

The County's 2012 Bicycle Master Plan is a sub-element of the Transportation Element of the County's General Plan (Los Angeles County 2012a). As an adopted regional planning document, the 2012 Bicycle Master Plan guides the County in implementing proposed bikeways as well as various bicycle-friendly policies and programs to promote bicycle ridership within the County. The Bicycle Master Plan proposes approximately 831 miles of new bikeways throughout the County for implementation through 2032. The County's Bicycle Master Plan identifies the Ballona Creek Bike Trail within the project site as an existing Class I bike path. The plan identifies SR-1/Lincoln Boulevard as having a Class III bike route along it within the project site, although there are no formal bicycle facilities along this segment of SR-1/Lincoln Boulevard in existing conditions. Just north of the project site, the plan identifies an existing Class III bike route along Fiji Way that is planned to be a future Class I bike path. These bicycle facilities on Fiji Way will provide connectivity to the Marvin Braude Bike Path to the northwest.

Los Angeles County – Climate Action Plan

The County's 2045 Climate Action Plan (2045 CAP) is LA County's path toward meeting the goals of the Paris Agreement and achieving carbon neutrality for unincorporated areas of the County. The 2045 CAP builds on previous climate action work from the Unincorporated Los Angeles County Community Climate Action Plan 2020 (2020 CCAP), which was adopted in October 2015 as a subcomponent of the Air Quality Element of the County's General Plan. The 2045 CAP identifies strategies, measures, and actions to mitigate emissions from community activities, which may include some municipal operations; however, municipal operations are not the focus of this plan. Information related to consistency with applicable air quality and greenhouse gas emissions are provided in Chapter 2.2.6, Air Quality, and Chapter 3, California Environmental Quality Act Evaluation, of this Draft EIR/EA.

Step By Step Los Angeles County

Step by Step Los Angeles County provides a policy framework for how the County proposes to get more people walking, make walking safer, and support healthy, active lifestyles. It also includes Community Pedestrian Plans for unincorporated communities in Los Angeles County. None of the County's community pedestrian plans occur within or near the project site (Los Angeles County 2019).

Los Angeles County – Significant Ecological Areas

Significant Ecological Areas (SEA) are officially designated areas within Los Angeles County with irreplaceable biological resources. The SEA boundaries were adopted as part of the County's General Plan in 2015 (Los Angeles County 2022b). The SEA Program objective is to conserve genetic and physical diversity within the County by designating biological resource areas that are capable of sustaining themselves into the future. Certain areas were classified as conceptual SEAs and these areas were not adopted officially as SEAs at that time. The SEA Ordinance was adopted in December 2019 by the County's Board of Supervisors and it went into effect on January 16, 2020. The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights. Areas west of SR-1/Lincoln Boulevard within the County are identified as Conceptual SEA/Coastal Resource Areas (CRA) areas (Los Angeles County 2022a). Given that these are still conceptual and not yet approved, the SEA Ordinance does not apply in these areas.

Los Angeles County – Marina Del Rey Specific Plan

The area north of Ballona Creek and west of SR-1/Lincoln is within the Los Angeles County Marina Del Rey Specific Plan (Los Angeles County 2012b, 2012c). The Marina Del Rey Specific Plan establishes policies and recommendations to enhance public coastal access, improve public transit, and meet the goals of the Coastal Act. The Marina Del Rey Specific Plan depicts the Fiji Gateway Park at the southwest corner of SR-1/Lincoln Boulevard and Fiji Way as being located within the Marina Del Rey Local Coastal Program (LCP) Area. Policies from the Marina Del Rey Specific Plan and Land Use Plan that are applicable to the Project are evaluated below in Table 2.1.2-1. Only Project activities occurring within the specific plan (e.g., within the parcel containing Fiji Gateway Park) would be required to be consistent with the policies contained in the Marina Del Rey Specific Plan. Other County areas within the project site including those south of Fiji Ditch, west of SR-1/Lincoln Boulevard, and north of Culver Boulevard are not within the Marina Del Rey Specific Plan.

Los Angeles County Code of Ordinances

The County's Code of Ordinances is a compilation of the County's ordinances related to a variety of topics including the following which relate to the Project: health and safety (Title 11); environmental protection (Title 12); vehicles and traffic (Title 15); highways (Title 16); parks, beaches, and other public areas (Title 17); utilities (Title 20); planning and zoning (Title 22); building code (Title 26) (Los Angeles County 2022d).

Sea Level Rise Planning Guidance for California's Coastal Zone

The original Sea Level Rise Policy Guidance document was adopted for use by the Coastal Commission in 2015. It provides an overview of the best available science on sea level rise for California and recommended methodology for addressing sea level rise in Coastal Commission planning and regulatory actions. It is intended to serve as a multi-purpose resource for a variety of audiences and includes a high level of detail on many subjects.

In November 2018, the Coastal Commission unanimously adopted a Science Update to the Sea Level Rise Policy Guidance (OPC 2018a). The science-focused changes reflect recent scientific studies and statewide guidance that update our understanding of best available science on sea level rise projections relevant to California. Other sections of the Guidance remain unchanged.

In 2024, OPC released draft State of California Sea Level Rise Guidance: 2024 Science and Policy Update, which will update and replace the previous 2018 State of California Sea-Level Rise Guidance. The OPC report consists of the best available science on sea level rise and coastal impacts with pragmatic and practical approaches for using this new scientific information in planning and decision-making (OPC 2024a). OPC anticipates that the final Guidance will be presented to the Ocean Protection Council for review and adoption at its June 2024 meeting (OPC 2024a).

State Agency Sea-Level Rise Action Plan for California

The Sea-Level Rise Action Plan is a five-year plan to make advances toward coastal resilience through comprehensive, coordinated, and collaborative work (OPC 2022a). The actions in this plan address urgent needs by identifying proposed new and ongoing work that will be leveraged upon in the next five years. This Action Plan includes over 80 trackable actions, covering both a regional and statewide scope.

Los Angeles Metro Vision 2028 Plan

Metro's Vision 2028 Plan is the agency-wide strategic plan that creates the foundation for transforming mobility in Los Angeles County through the year 2028. It sets the mission, vision, performance outcomes and goals for Metro and puts in motion specific initiatives and performance outcomes towards which Metro and its partners will strive, in pursuit of a better transportation future (Metro 2018a).

Metro Vision 2028 Plan outlines strategic goals for 2018–2028, and the specific actions Metro will undertake to meet those goals. It explains what the public can expect from Metro and describes how we intend to deliver on and hold ourselves accountable for those expectations.

Vision 2028 Plan outlines the following five goals:

1. Provide high-quality mobility options that enable people to spend less time traveling;
2. Deliver outstanding trip experiences for all users of the transportation system;
3. Enhance communities and lives through mobility and access to opportunity;
4. Transform Los Angeles County through regional collaboration and national leadership; and
5. Provide responsive, accountable, and trustworthy governance within the Metro organization.

Los Angeles Metro 2020 Long Range Transportation Plan

As the State-designated transportation planning and programming agency for LA County, Los Angeles Metro is required to adopt and maintain a Long Range Transportation Plan (LRTP) to satisfy federal and State funding requirements (per enabling legislation California Public Utilities Code §130050 et seq). Metro develops a LRTP for Los Angeles County. The LRTP is periodically updated to maintain at least a 20-year planning horizon, and to reflect changes since the last Plan was adopted. The 2020 LRTP extends the planning horizon from the 2009 LRTP by an additional seven years, from 2040 to 2047. It also updates the LRTP for a variety of factors, such as socio-economic data, financial conditions, changes in travel patterns, and the inclusion of additional projects and programs. The LRTP is a living document which can be amended through Board action as regional needs and priorities change (Metro 2020a).

The LRTP includes a future BRT project along SR-1/Lincoln Boulevard as a planned Major Transit Project/Transit Investment. The Project is described as the SR-1/Lincoln Boulevard Transit Corridor, and it would consist of an approximate 10-mile bus rapid transit or light rail transit line that would operate along a north to south route on SR-1/Lincoln Boulevard between the Expo Line's Downtown Santa Monica Station and Los Angeles International Airport. That project is anticipated to be completed around 2047 (Metro 2020b).

Also, there is a separate Metro project called Lincoln Fast Forward that is located approximately 1.5 miles north of the project site along SR-1/Lincoln Boulevard that would provide a rush hour bus-only lane between Venice Boulevard and Commonwealth Avenue. This builds upon the stretch of SR-1/Lincoln Boulevard between Ozone Street and the Interstate (I) 10 Freeway within the City of Santa Monica that also have bus-only lanes (LADOT 2023b).

More information on the Project's consistency with future planned transit along SR-1/Lincoln Boulevard in the Project vicinity is provided in Chapter 2.1.10, Traffic, Transportation, Pedestrian, and Bicycle Facilities.

Enhanced Watershed Management Program for the Ballona Creek Watershed

The Municipal Separate Storm Sewer System (MS4) Permit Order No. R4-2012-0175 (Permit) for Los Angeles County provides an innovative approach to Permit compliance through the development of Enhanced Watershed Management Program (EWMP) Plans (Los Angeles, City of, County of LA, et. al 2016a). Through a collaborative approach, an EWMP for the Ballona Creek Watershed Management Area (WMA) was developed by the Ballona Creek Watershed Management Group (BC EWMP Group). The BC EWMP Group is comprised of the cities of Los Angeles (lead coordinating agency), Beverly Hills, Culver City, Inglewood, Santa Monica, West Hollywood, and the Unincorporated County of Los Angeles and the Los Angeles County Flood Control District (LACFCD). By electing to comply with the optional compliance pathway in the MS4 Permit, the BC EWMP Group has leveraged this EWMP to facilitate a robust, comprehensive stormwater management approach for the Ballona Creek watershed and to address the priority water quality conditions in the WMA. The EWMP includes an "EWMP Implementation Strategy" to improve water quality within the watershed including the construction and maintenance of a large network of control measures that are identified in the EWMP. The EWMP also includes cost estimates and a financial strategy for increasing stormwater funding to implement the projects that are identified within the EWMP. There are no policies or other requirements within the EWMP that are directly applicable to the Project. Therefore, no further evaluation of consistency with the EWMP is required.

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Since Alternative 1 would involve no construction, there would be no short-term effects related to air quality, noise, transportation, or other topics addressed by applicable plans, programs, policies, and ordinances.

Operational Effects

Alternative 1 would not implement the planned improvements for SR-1/Lincoln Boulevard that are identified within the City of Los Angeles Mobility Plan 2035, Westside Mobility Plan, and Los Angeles Coastal Transportation Corridor Specific Plan and the SCAG RTP/SCS. Under Alternative 1, the project site would remain inconsistent with many of the goals and policies identified in Table 2.1.2-1 relating to multimodal roadways.

Cumulative Effects

Alternative 1 would not construct a roadway cross-section or new bridges at Ballona Creek and Culver Boulevard to accommodate future planned transit. Therefore, future effects to the BWER and Ballona Creek could occur from cumulative transit projects that would not occur with implementation of Alternative 2.

Alternative 2 – Base Alternative

Construction Effects

An evaluation of the consistency of Alternative 2 construction relative to applicable State, regional, and local plans, programs, policies, and ordinances is provided below in Table 2.1.2-1. As summarized in Table 2.1.2-1 and as discussed throughout this Draft EIR/EA, Alternative 2 would be constructed consistent with applicable plans and policies.

<u>Operational Effects</u>

An evaluation of Alternative 2 operations relative to applicable State, regional, and local plans, programs, policies, and ordinances is provided below in Table 2.1.2-1. As summarized in Table 2.1.2-1 and as discussed throughout this Draft EIR/EA, operation of Alternative 2 would be consistent with the FTIP, RTP/SCS, the City of Los Angeles Westside Mobility Plan, the Los Angeles Metro 2020 Long Range Transportation Plan, and other transportation plans and policies.

Alternative 2 has been designed to accommodate future transit projects, as the 130-foot-wide minimum cross-section of the roadway can be re-striped in the future to accommodate center-running bus rapid transit (BRT) or light rail transit (LRT) down the middle of the roadway.

Alternative 2 would modify SR-1/Lincoln Boulevard Bridge over Ballona Creek to accommodate sea level rise in accordance with State sea level rise planning guidance documents.

Also, Alternative 2 would result in environmental benefits related to improved coastal access; improved conditions for bicyclists and pedestrians; reduced greenhouse gas emissions, reduced vehicle miles traveled; improved air quality; improved water quality; and reduced vehicular energy consumption.

However, Alternative 2 would partially or fully conflict with applicable policies/programs/ordinances relating to aesthetics, biological resources, noise, and utilities.

<u>Cumulative Effects</u>

Alternative 2 would be consistent with local and regional transportation plans and would facilitate planned transit improvements within the project site. Alternative 2 would improve an existing transportation corridor. Furthermore, Alternative 2 does not require substantial new land acquisition in areas devoted to non-transportation uses. All acquisitions would be partial takes, and acquisition from the BWER would be mitigated through either fair compensation or through an exchange of City lands adjacent to the BWER. Coordination has occurred with CDFW related to consistency with the Ballona Wetlands Restoration Project. Therefore, no adverse cumulative effects related to plans and programs are anticipated.

Table 2.1.2-1 – Consistency Analysis for Alternative 2 Regarding Applicable State, Regional, and Local Plans and Programs

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. This parcel is an undeveloped area that is designated as an open space land use; therefore, the fewer temporary construction effects under Alternative 2A would result in increased consistency with the biological resources policies contained in the City of Los Angeles General Plan and with goals and policies contained in the Conservation and Natural Resources and Parks and Recreation Elements of the Los Angeles County General Plan when compared to Alternative 2. Otherwise, construction of Alternative 2A would result in the same level of consistency with plans and programs as construction of Alternative 2.

Operational Effects

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER, an open space land use, and the west side of SR-1/Lincoln Boulevard north of Culver Boulevard. Alternative 2A would provide a more defined buffer between future users and wildlife within the BWER and SR-1/Lincoln Boulevard, which would result in increased consistency with the biological resources policies contained in the City of Los Angeles General Plan and with goals and policies contained in the Conservation and Natural Resources and Parks and Recreation Elements of the Los Angeles County General Plan when compared to Alternative 2. The retaining wall could potentially be the target of graffiti once it is built which would be in conflict with a variety of aesthetic-focused City and county policies; however, **MM VIS-5** would be implemented as part of Alternative 2A to minimize the effects of graffiti, which requires that anti-graffiti treatments be specified for all bridges, abutments, retaining walls, and noise barriers. Otherwise, operation of Alternative 2A would result in the same level of consistency with plans and programs as operation of Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to existing and future land use would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard which contains another portion of Fiji Ditch. Alternative 2B would result in increased consistency with the biological resources policies contained in the Conservation Element and Open Space Element of the City of Los Angeles General Plan and with goals and policies contained in the Conservation and Natural Resources Element and Parks and Recreation Element of the Los Angeles County General Plan when compared to Alternative 2. Otherwise, Alternative 2B would result in the same construction effects to existing and future land uses as Alternative 2.

Operational Effects

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard which contains a portion of Fiji Ditch. Both properties are open space land uses with drainage facilities within them. Overall, Alternative 2B would result in increased consistency with the biological resources policies contained in the Conservation Element and Open Space Element of the City of Los Angeles General Plan and with goals and policies contained in the Conservation and Natural Resources Element and Parks and Recreation Element of the Los Angeles County General Plan when compared to Alternative 2. Otherwise, operation of Alternative 2B would result in the same level of consistency with plans and programs as operation of Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to consistency with plans and programs would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER. These additional temporary construction easements needed for Alternative 2C would result in less consistency than Alternative 2 with the biological resources policies contained in the Conservation Element and Open Space Element of the City of Los Angeles General Plan and with goals and policies contained in the Conservation and Natural Resources Element and Parks and Recreation Element of the Los Angeles County General Plan. Otherwise, construction of Alternative 2C would result in the same level of consistency with plans and programs as construction of Alternative 2.

Operational Effects

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER and identified as open space land uses. In the future, this area would be converted to be used as a 12-foot-wide, two-lane bicycle/pedestrian path. This would be similar to the Ballona Wetlands Restoration Project at this location. The proposed 12-foot path would be 8-feet narrower than the 20-foot-wide path that CDFW notes in their restoration plan for just north of this location, but CDFW would not have to pay for or maintain the bridge. As there would be no separate bicycle and pedestrian facilities, bicyclists and pedestrians would jointly utilize the two-lane, 12-foot path along the bridge under Alternative 2C, in contrast to the separated and buffered bicycle and pedestrian paths that are shown in CDFW's Ballona Wetlands Restoration Project public access and trails documentation. These additional partial right-of-way acquisitions needed for Alternative 2C would result in less consistency than Alternative 2 with the biological resources policies contained in the Conservation Element and Open Space Element of the City of Los Angeles General Plan and with goals and policies contained in the Conservation and Natural Resources Element and Parks and Recreation Element of the Los Angeles County General Plan. However, the additional permanent effects would allow for a wider bridge to be built that would provide for improved connections to/within the BWER. Otherwise, operation of Alternative 2C would result in the same level of consistency with plans and programs as operation of Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to consistency with plans and programs would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would be the same as Alternative 2 with the exception that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER. Under Alternative 2D, the City would own and manage the entire ramp. Partial acquisition areas from the BWER would be compensated for in the same manner and at the same rate as is specified for Alternative 2. These additional temporary construction easements needed for Alternative 2D would result in less consistency than Alternative 2 with the biological resources policies contained in the Conservation Element and Open Space Element of the City of Los Angeles General Plan and with goals and policies contained in the Conservation and Natural Resources Element and Parks and Recreation Element of the Los Angeles County General Plan. Otherwise, construction of Alternative 2D would result in the same level of consistency with plans and programs as construction of Alternative 2.

Operational Effects

Alternative 2D would require additional grading and permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900 that would not be constructed under Alternative 2, which is a part of the BWER and an open space land use. If Alternative 2D were to be implemented, approximately 840 square feet of additional permanent right-of-way would be required from APN 4211-015-900. Under Alternative 2D, the City would own and manage the entire ramp. Partial acquisition areas from the BWER would be compensated for in the same manner and at the same rate as is specified for Alternative 2. These additional partial right-of-way acquisitions needed for Alternative 2D would result in less consistency than Alternative 2 with the biological resources policies contained in the Conservation Element and Open Space Element of the City of Los Angeles General Plan and with goals and policies contained in the Conservation and Natural Resources Element and Parks and Recreation Element of the Los Angeles County General Plan. However, the additional permanent effects would allow additional pedestrian and bicycle connections, which would increase consistency with City and County General Plan mobility and circulation elements that contain policies related to bicycle and pedestrian modes of transportation. Otherwise, operation of Alternative 2D would result in the same level of consistency with plans and programs as operation of Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to consistency with plans and programs would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are applicable to this resource topic.

2.1.3 Coastal Zone

Regulatory Setting

Federal

Coastal Zone Management Act

This Project has the potential to affect resources protected by the Coastal Zone Management Act (CZMA) of 1972. The CZMA is the primary federal law enacted to preserve and protect coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the State's management plan.

State

California Coastal Act

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the CZMA as they include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal CZMA delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own local coastal programs (LCPs). LCPs contain the ground rules for development and protection of coastal resources in their jurisdiction consistent with the California Coastal Act goals. A Federal Consistency Certification will be needed as well. The Federal Consistency Certification process will be initiated prior to final environmental document and will be completed to the maximum extent possible during the NEPA process.

Much of the project site is within the Coastal Zone and constitutes development, so a coastal development permit will be required prior to construction.

Local

Local Coastal Program

The California Coastal Act requires each community in the coastal zone to prepare an LCP; each LCP must also include a coastal Land Use Plan to protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural resources.

The Coastal Commission has not certified a Local Coastal Program applicable to the project site; therefore, the Chapter 3 policies of the Coastal Act are the standard of review for the Project.

Affected Environment

Located in the Coastal Zone

As shown in Figure 2.1.3-1, most of the project site occurs within the coastal zone. Therefore, the California Coastal Act applies to the Project.

Coastal Zone Access and Resources

Sections 30210 and 30214 of the Coastal Act prioritize the public's right to access the shoreline.

Public access to the coast is currently provided via the Ballona Creek Bike Path, which traverses the project site. However, pedestrian and bicycle access to the Ballona Creek Bike Path is currently deficient.

Public access to the coast is also provided in existing conditions by automobile using SR-1/Lincoln Boulevard to access Jefferson Boulevard and Fiji Way to access Marina del Rey. SR-1/Lincoln Boulevard also provides access to other coastal locations to the north and south.

Environmentally Sensitive Habitat Areas (ESHAs):

Section 30230 of the Coastal Act prioritizes ecological resources. Section 30240 of the Coastal Act includes special protection for Environmentally Sensitive Habitat Areas (ESHAs).

As described in more detail in Chapter 2.3.1, Natural Communities, ESHAs within the project site include Ballona Creek, Fiji Ditch, and other jurisdictional waters. Undeveloped areas within the BWER are also likely considered ESHAs by the California Coastal Commission.

Views and Lighting:

Views and local character are protected by the Coastal Act (30251): The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and

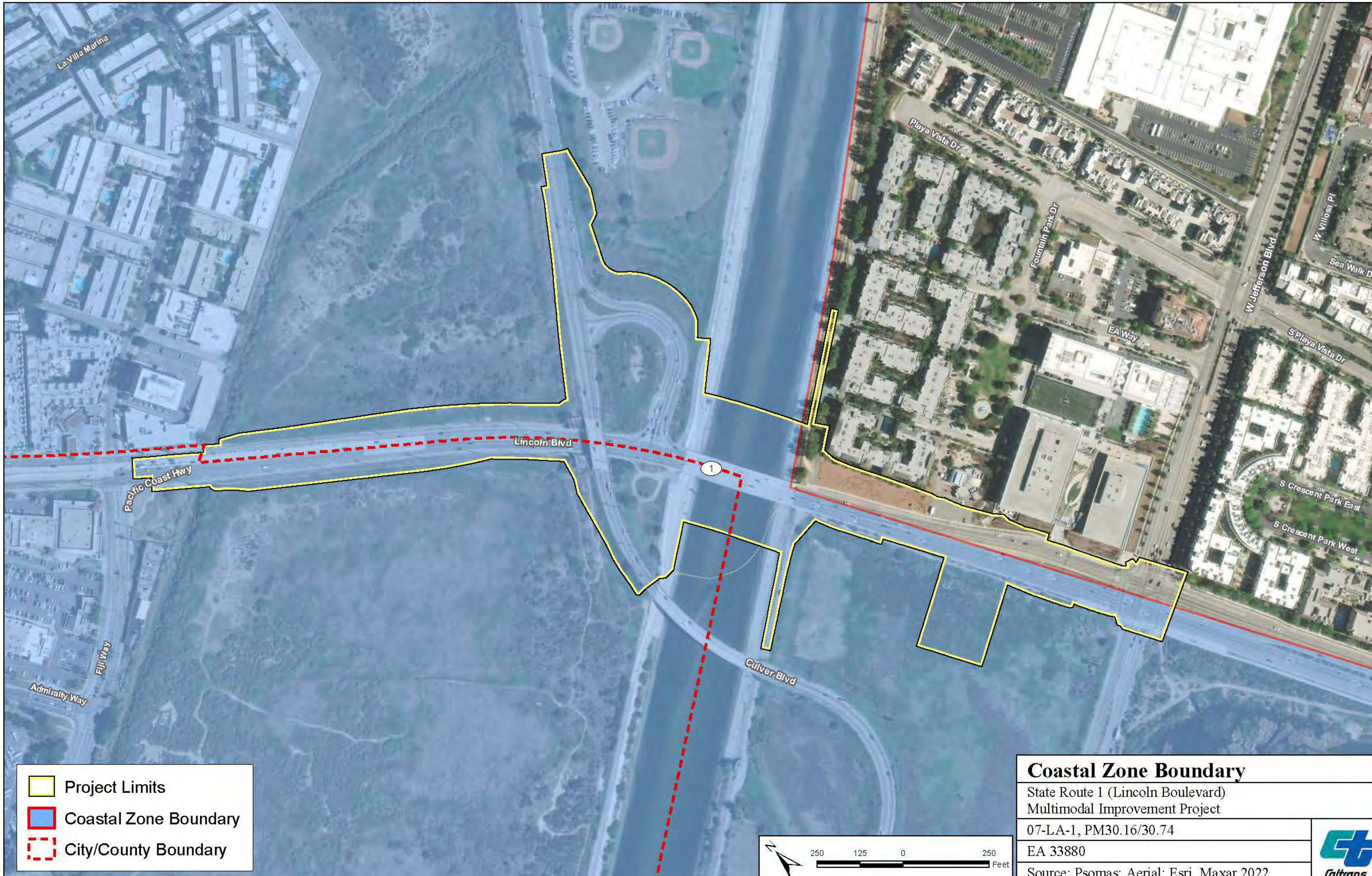

La Villa Marina
Playa Vista Dr
Fountain Park Dr
W Villosa Pl
Sea Walk Dr
W Jefferson Blvd
EA Way
S Playa Vista Dr
Lincoln Blvd
Pacific Coast Hwy
1
S Crescent Park East
S Crescent Park West
Culver Blvd
Fiji Way
Admiralty Way
Project Limits
Coastal Zone Boundary
City/County Boundary
N
250 125 0 250
Feet
Coastal Zone Boundary
State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Psomas; Aerial: Esri, Maxar 2022
Caltrans

Figure 2.1.3-1

scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

A description of existing views and lighting is provided in Chapter 2.1.11, Visual/Aesthetics.

Water Quality

Section 30231 of the Coastal Act recognizes the importance of maintaining adequate water quality for coastal zone organisms and human health.

A description of existing water quality conditions is provided in Chapter 2.2.1, Hydrology and Floodplain.

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Coastal Access

Alternative 1 would not result in any temporary effects to coastal access such as temporary road or lane closures or temporary detour of the Ballona Creek Bike Path.

Safety

Alternative 1 would not result in any construction activities; therefore, there Alternative 1 would have no effects related to emergency responder access during construction nor would there be any potential safety incidents that could result from any construction activities under this alternative.

Environmentally Sensitive Habitat Areas (ESHAs)

No temporary construction easements or temporary work activities would be required within ESHAs in the project site including Ballona Creek, Fiji Ditch, and areas in the BWER during construction of Alternative 1.

Recreational

Alternative 1 would not require any temporary construction easements or temporary work activities within the BWER or Fiji Gateway Park. No temporary detour of the Ballona Creek Bike Path would be required under this alternative.

Air Quality

No construction activities would occur under Alternative 1; therefore, there would be no temporary air quality emissions that would result from construction of this alternative. Also, Alternative 1 would have no effect on fugitive dust since no vegetation would be cleared and no vehicles would be operated off of the road under this alternative.

Water Quality

No construction activities would occur under Alternative 1; therefore, there would be no potential for impaired water quality runoff during construction of this alternative.

Vehicle Miles Traveled

No construction activities would occur under Alternative 1; therefore, there would be no temporary air quality emissions that would result from construction of this alternative.

Aesthetics/Views

No temporary removal of vegetation would occur under Alternative 1. Also, no construction staging areas would be established and no staging, storage, usage, and views of construction equipment and materials would be visible. Therefore, Alternative 1 would not result in substantial adverse visual effects during construction.

<u>Operational Effects</u>

Coastal Access

Alternative 1 would not improve coastal access. Existing impaired bicycle and pedestrian connectivity to the Ballona Creek Bike Path would remain.

Alternative 1 would not implement the planned improvements for SR-1/Lincoln Boulevard that are identified within the City of Los Angeles Mobility Plan 2035, Westside Mobility Plan, and Los Angeles Coastal Transportation Corridor Specific Plan and the SCAG 2020 Regional Transportation Plan/Sustainable Communities Strategy. Alternative 1 would also not improve transit access within the project site as would occur under Alternative 2.

Safety

Alternative 1 would not implement safety improvements within the project site. No new sidewalks or bicycle lanes would be provided under this alternative. This alternative would not eliminate a southbound bottleneck that would result in increased southbound vehicular safety and operations.

Environmentally Sensitive Habitat Areas (ESHAs)

Since Alternative 1 would involve no improvements, Alternative 1 would result in no effects to the coastal zone or to coastal resources such as Ballona Creek, Fiji Ditch, and habitat for plants and animals as described in more detail in Chapter 2.3, Biological Resources.

Temporary impact areas that were identified for Alternative 2 within the BWER, which are generally degraded roadside areas, would not be re-planted with native vegetation under Alternative 1.

No reductions in the amount of concrete within Ballona Creek would occur under this alternative. However, no increase in the amount of shading of Ballona Creek would occur under Alternative 1 as it would under Alternative 2.

Recreational

Alternative 1 would not require any temporary construction easements or partial right-of-way acquisitions from the BWER. However, Alternative 1 would not improve access to the BWER by adding any sidewalks or bicycle lanes which would occur under Alternative 2. No land swap would be implemented under this alternative. Alternative 1 would not require any right-of-way acquisitions from the Fiji Gateway Park to construct a new sidewalk. No sidewalk would be provided along SR-1/Lincoln Boulevard next to Fiji Gateway Park under Alternative 1.

Sea Level Rise

Alternative 1 would not reconstruct the SR-1/Lincoln Boulevard Bridge to accommodate projected future Sea Level Rise conditions. Therefore, there is the potential that Alternative 1 could result in flooding within the project site including inundation of the existing bridge.

Air Quality

Alternative 1 would not result in any reductions in operational congestion within the project site; therefore, no operational air quality improvements would result from this alternative.

Water Quality

Alternative 1 would maintain the same amount of impervious surface as in existing conditions. However, Alternative 1 would not implement any operational water quality improvements within the project site as would occur under Alternative 2.

Vehicle Miles Traveled

Alternative 1 would not result in any reductions in vehicle miles traveled (VMT) as commuter patterns would remain the same under this alternative; therefore, no reductions in VMT would result from Alternative 1.

Aesthetics/Views

Alternative 1 would not change the profile of SR-1/Lincoln Boulevard, would not remove the two existing bridges within the project site, and would not reconstruct the SR-1/Lincoln Boulevard Bridge over Ballona Creek or the Culver Boulevard overpass over SR-1/Lincoln Boulevard. Also, Alternative 1 would not construct a noise barrier. Therefore, aesthetics and views would not be affected under this alternative.

Cumulative Effects

Alternative 1 would not construct a roadway cross-section or new bridges at Ballona Creek and Culver Boulevard to accommodate future planned transit. Therefore, future effects to the BWER and Ballona Creek would potentially occur from cumulative transit projects that would not occur with implementation of Alternative 2.

Alternative 2 – Base Alternative

California Coastal Commission staff submitted a comment letter during the scoping period for the Project.

During the preliminary design process, members of the Project Development Team (PDT) reached out to and met with California Coastal Commission staff a number of times to respond to their scoping comments, to provide status updates, to share the preliminary Project design, and to solicit additional input regarding the Project. Much of the analysis of effects for Alternative 2 provided below is derived in part from this coordination. More information on coordination with stakeholders is provided in Chapter 4, Comments and Coordination.

Construction Effects

Coastal Access

Alternative 2 would result in temporary effects to coastal access including the temporary closure of Culver Boulevard, temporary lane closures on SR-1/Lincoln Boulevard, and the temporary detour of the Ballona Creek Bike Path. **MM TRANS-1** would be implemented as part of Alternative 2, requiring that the contractor prepare and implement a coordinated Transportation Management Plan (TMP) for the Project to minimize effects to local vehicular traffic, pedestrians, and bicyclists. A minimum of two lanes would be maintained in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted as specified in the TMP described in **MM TRANS-1**. More information on this topic is provided in Chapter 2.1.10, Transportation.

Safety

Alternative 2 would result in construction activities that could potentially have effects on emergency responder access during construction. Also, Alternative 2 would involve construction activities, usage of hazardous materials, and the transport and disposal of hazardous wastes that could result in adverse effects to health and safety if not implemented in accordance with applicable laws and regulations. Suitable detours would be provided for emergency service providers to maintain adequate emergency response. More information on detours and effects to circulation during construction is provided in Chapter 2.1.10, Transportation. More information related to the use, transport, and disposal of hazardous materials and wastes is provided in Chapter 2.2.5, Hazardous Waste/Materials.

Environmentally Sensitive Habitat Areas (ESHAs)

During construction of Alternative 2, temporary construction easements and temporary work activities would be required within ESHAs in the project site including wetlands and other waters (e.g., Ballona Creek and Fiji Ditch), sensitive natural communities (Menzies's Golden Bush Scrub, Alkali Weed Playa, California Bulrush Marsh, Pickleweed Mat, and Arroyo Willow Thicket) and habitat for special status plant and animal species in the BWER. More information on ESHAs is provided in Chapter 2.3, Biological Environment, and in the Natural Environment Study provided as Appendix S.

Recreational

Alternative 2 would require temporary construction easements and temporary work activities within the BWER and Fiji Gateway Park. The areas that would be temporarily used during construction of Alternative 2 are not currently used for any active recreational purposes that would substantially reduce the value of these properties. Therefore, recreational activities would not be displaced by these TCEs. Also, a temporary detour of the Ballona Creek Bike Path would be required under this alternative.

Also, all of the temporary impact areas that would be affected by Alternative 2 within the BWER are planned to otherwise ultimately be altered by CDFW's Ballona Wetlands Restoration Project. Given that CDFW plans to restore these areas, Alternative 2 represents an opportunity to re-plant the temporarily impacted slopes adjacent to SR-1/Lincoln Boulevard and other temporary impact areas within the BWER in accordance with CDFW's restoration plan. This would also potentially help to avoid multiple impacts of these areas and would help CDFW to more quickly and cost effectively implement their restoration project by having these areas already completed as part of Alternative 2. Therefore, Alternative 2 would result in minor short-term recreational effects, but would help to implement long-term planned recreational improvements.

Air Quality

Alternative 2 would result in temporary air quality effects during construction through the usage of construction equipment, disturbance of the soil surface and resulting fugitive dust, etc. These effects have been evaluated and were determined to be less than substantial compared to establish air quality standards. More information on this topic and on related mitigation measures related to construction air quality is provided in Chapter 2.2.6, Air Quality.

Water Quality

Alternative 2 would temporarily impair the quality of storm water runoff from the project site during construction. However, a Storm Water Pollution Prevention Plan and a Bridge Removal Plan would be developed and implemented as a part of Alternative 2 to minimize these effects to less than substantial levels, as required by **MM WQ-1** and **MM WQ-2**. More information on this topic is provided in Chapter 2.2.2, Water Quality and Storm Water Runoff, including additional mitigation measures relating to dewatering and other water quality topics.

Vehicle Miles Traveled

Alternative 2 would generate VMT during construction related to construction worker trips to/from the project site, material deliveries, and haul truck trips. Increased VMT may also be generated temporarily during construction related to longer commutes for some motorists who would need to detour around the project site on a less direct route than their typical commute. VMT would ultimately be reduced with the proposed improvements. Additional information on this topic is provided in Chapter 2.1.10, Transportation.

Aesthetics/Views

Construction of Alternative 2 would result in temporary effects to views of the project site related to the establishment and usage of construction staging areas where staging and storage of construction equipment and materials, as well of construction activities, would occur. These effects have been minimized through avoidance, minimization, and mitigation measures which are detailed in Chapter 2.1.11, Visual/Aesthetics.

<u>Operational Effects</u>

Alternative 2 would involve the unavoidable fill of coastal waters to provide expanded multimodal transportation and other improvements within the project site. Mitigation would be provided in coordination with the resource agencies and CCC to compensate for these effects to coastal waters, ensuring that the functional capacity of these wetlands/waters are enhanced overall.

Also, as detailed in Chapter 1.0, Proposed Project, Alternative 2 would result in less concrete structural footings within Ballona Creek. As shown in Table 1-1, the total diameter of the proposed piers within Ballona Creek would be 792 inches, which is a 19.7 percent decrease from the 987-inch diameter of existing footings and pier walls that occur within the channel.

Alternative 2 would enhance transportation connections on the Westside of Los Angeles. Alternative 2 would add sidewalks, bicycle lanes, and an additional southbound lane that would reduce VMT and that would improve safety for pedestrians and bicyclists. As described in more detail in Chapter 2.1.2, Consistency with Plans and Programs, Alternative 2 would be consistent with the planned regional transportation improvements for SR-1/Lincoln Boulevard. The Project has been included in and is consistent with the 2023 Federal Transportation Improvement Program (FTIP), which is the latest FTIP adopted by SCAG (SCAG 2022b). The Project is also included in the SCAG 2024 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The listing within the 2024 RTP/SCS is consistent with the current scope of improvements and project limits for Alternative 2.

As discussed in Chapter 1.0, Proposed Project, design exceptions have been incorporated into the design of Alternative 2 to minimize the size of the Alternative 2 impact footprint. A Design Standard Decision Document (DSDD) was prepared for Alternative 2 to evaluate and provide justification for several deviations from the requirements contained within the Caltrans HDM, Sixth Edition that were needed to shrink the impact footprint (Psomas 2023e). These design variations are being proposed as part of Alternative 2 to reduce temporary and permanent effects within the BWER. The DSDD provides an overview and safety evaluation of each of the proposed deviations. The design variations proposed as part of the design of Alternative 2 are summarized below in Table 1-2 within Chapter 1.0, Proposed Project.

As detailed in Chapter 1.0, Proposed Project, all feasible opportunities to avoid and minimize coastal waters and other ESHA's that have been presented to the PDT by other stakeholders as well as those conceived by the PDT members have been evaluated and incorporated into Alternative 2 as feasible. However, unavoidable fill of coastal waters and permanent impacts to other ESHAs would still be required to implement Alternative 2.

Mitigation would be provided in coordination with the resource agencies and CCC to compensate for these effects to coastal waters, ensuring that the functional capacity of these wetlands/waters are enhanced overall.

Therefore, due to effects to coastal waters, it is our initial finding in this Draft EIR/EA that Alternative 2 would be inconsistent with the requirements of Section 30233(a) of the Coastal Act related to the fill of coastal waters.

Also, Alternative 2 would permanently acquire and affect portions of the BWER.

Alternative 2 would also result in permanent effects to views through the alteration of the profile of SR-1/Lincoln Boulevard and the two reconstructed bridges which would be higher and at slightly different locations than the existing bridges.

Despite the potential permanent effects of Alternative 2 that are noted above, when taken as a whole, Alternative 2 would overall be more protective of coastal resources than not implementing Alternative 2 due to the many benefits that would result from Alternative 2. Benefits of Alternative 2 relating to improved coastal access, reduced greenhouse gas emissions, and reduced vehicle miles traveled are detailed below in Table 2.1.3 1.

Specifically, implementation of Alternative 2 would achieve and be consistent with Coastal Act policies related to coastal access, safety, water quality, sea level rise, air quality, energy consumption, and VMT that would not otherwise be achieved.

Therefore, not implementing Alternative 2 would be inconsistent with the Coastal Act because if no improvements are made, then the Coastal Commissions' mandate to maximize public access would not be achieved, nor would mandates related to alternative transit, reduced energy consumption, improved sea level rise resilience, and improved air and water quality.

More discussion on each of these topics is provided below.

Coastal Access

Alternative 2 would improve coastal zone access for all users when compared to existing conditions. Also, Alternative 2 would improve access to/from the BWER and the Ballona Creek Bike Path for bicyclists and pedestrians. While improving coastal access, Alternative 2 would also reduce vehicle miles traveled within the project site and nearby vicinity. More information on these topics is provided in Chapter 2.1.4, Parks and Recreation, and Chapter 2.1.10, Transportation.

Safety

Alternative 2 would include the construction of safety improvements within the project site, including new sidewalks and bicycle lanes where these facilities currently do not exist. Alternative 2 would also eliminate a southbound bottleneck, which currently results in southbound vehicular safety and operational issues. Therefore, Alternative 2 would improve safety within the project site when compared to existing conditions. More information on this topic is provided in Chapter 2.1.10, Transportation, as well as in the Draft Project Report (Psomas 2023a).

Environmentally Sensitive Habitat Areas (ESHAs)

Alternative 2 would result in permanent effects to ESHAs, including the following:

- Alternative 2 would result in permanent effects to wetlands and coastal waters. Complete avoidance of waters is not feasible since Alternative 2 includes a bridge over a creek. However, avoidance and minimization opportunities have been explored and incorporated during the preliminary design process for the Project as detailed in Chapter 1.0, Project Description.
  - Although effects to Ballona Creek would occur, under Alternative 2, the overall number of piers and the amount of concrete within Ballona Creek would be reduced from existing conditions.
- Feature 1 is “Fiji Ditch”. Minor permanent effects would result from the widening of an existing culvert to provide a sidewalk above this drainage.
  - A cantilevered sidewalk on both sides of SR-1/Lincoln Boulevard above Fiji Ditch is being considered as Alternative 2B to entirely avoid these direct effects.
- All of Feature 3 would be permanently altered to allow for the realignment of SR-1/Lincoln Boulevard to the east and to allow for the widening and realignment of the loop ramp from Culver Boulevard. Feature 3 is not within the Coastal Zone, but connects directly to Ballona Creek.
  - Mitigation would be provided in coordination with the resource agencies and CCC to compensate for these effects to coastal waters, ensuring that the functional capacity of these wetlands/waters are enhanced overall.
- The Project would impact 0.313 acre of Menzies’s golden bush scrub (0.016 acre permanent, 0.297 acre temporary).
  - To mitigate for effects related to Menzie’s golden bush scrub specifically, **MM BIO-6** would be implemented, which specifies minimum requirements to compensate for impacts to this vegetation community.
- Given the unavoidable effects to coastal waters and Menzie’s golden bush scrub that are required to implement Alternative 2, it is anticipated that the dispute resolution process identified within Section 30007.5 of the Coastal Act would need to be utilized by Coastal Commission, Caltrans, and the City later during final design and the regulatory permitting process for this Project to weigh the potential effects to coastal waters that would be necessary under Alternative 2 against the overall benefit of Alternative 2

related to coastal access, safety, water quality, air quality, energy consumption, and VMT that would not otherwise be achieved.

Recreational

Alternative 2 has been designed in coordination with CDFW and with consideration of the improvements proposed in CDFW's Ballona Wetlands Restoration Project. The bike lanes and sidewalks proposed under Alternative 2 would enhance public access to the BWER and to the recreational opportunities therein, as well as to the coast and to other pedestrian and bicycle paths.

Alternative 2 would result in permanent effects and the potential reduction in size of the BWER by 1.17-acres. During preliminary design, the PDT including staff from the City and Caltrans met with key CDFW staff to coordinate regarding creative opportunities to replace portions of the BWER that would become part of the roadway under Alternative 2 with other lands adjacent to the BWER that are owned by the City. The 1.17 acres of lands to be acquired from the BWER are not wetlands. Instead, these acquisition areas contain primarily upland mustard vegetation and open water land covers, with the exception of a few small patches of California Sagebrush Scrub (~2,500 square feet), Quailbush Scrub (~25 square feet), and Menzie's Golden Bush Scrub (~50 square feet) (Psomas 2023b). A land exchange may not materialize due to a number of variables and potential complications; therefore, this analysis assumes that Alternative 2 would result in a reduction in the size of the BWER by 1.17 acres and the fair compensation to CDFW for these lands. The areas to be acquired would not substantially affect recreation as they are not open to the public.

Sea Level Rise

The SR-1/Lincoln Boulevard Bridge would be built to accommodate projected Sea Level Rise. The new bridge structure is being designed with a height that has been specified based on conservative sea level rise scenarios using the latest scientific guidance. More information on this topic is provided in Chapter 2.2.1, Hydrology and Floodplain.

Air Quality

Alternative 2 would result in reduced operational congestion within the project site, which would result in operational air quality improvements. More information on this topic is provided in Chapter 2.2.6, Air Quality.

Water Quality

Alternative 2 would increase the amount of impervious surface when compared to existing conditions, which would increase the amount of storm water generated by Alternative 2. This could therefore increase the amount of polluted storm water that runs off into Ballona Creek and into the Pacific Ocean. However, storm water from the replacement Ballona Creek Bridge over Ballona Creek would be captured and treated before it is outlet into Ballona Creek or elsewhere as required by **MM WQ-5**. Also, as required by **MM WQ-5,** storm water generated from the widened roadway would be treated for anticipated roadway contaminants prior to the water discharging into Ballona Creek, Fiji Ditch, or other downstream receiving water bodies. Additional treatment methods could include practices such as biofiltration swales, detention basins, gross solids removal devices, and/or media filters (e.g., filtration systems where the first chamber settles out the larger solids and the second chamber traps hydrocarbons and metals as they pass through the filter). Therefore, Alternative 2 would result in improved water quality conditions when compared to existing conditions. *Vehicle Miles Traveled*

Alternative 2 would result in reductions in VMT as described in more detail in Chapter 2.1.10, Transportation. Reductions in operational VMT would result in reduced energy usage and greenhouse gas emissions for Alternative 2 when compared to existing conditions.

Aesthetics/Views

Alternative 1 would raise the profile of SR-1/Lincoln Boulevard, would remove the two existing bridges within the project site, and would reconstruct the SR-1/Lincoln Boulevard Bridge over Ballona Creek and the Culver Boulevard overpass over SR-1/Lincoln Boulevard higher than they currently are. Alternative 2 would also involve the construction of a new noise barrier (e.g., soundwall). More information on this topic is provided in Chapter 2.1.11, Visual/Aesthetics.

Coastal Act Consistency Evaluation

Policies within the California Coastal Act that are relevant to Alternative 2 are summarized below in Table 2.1.3-1, along with project consistency with each of these policies. A draft version of Table 2.1.3-1 was sent to California Coastal Commission staff in December 2022 for review.

Table 2.1.3-1 – Consistency of Alternative 2 With Coastal Act Policies:

<u>Cumulative Effects</u>

Alternative 2 and other cumulative projects within the Coastal Zone would each be required to obtain Coastal Development Permits from the City of Los Angeles, County of Los Angeles, or California Coastal Commission. Because all coastal permits issued for projects in the Coastal Zone would ultimately fall under the jurisdiction of the California Coastal Commission and would be conditioned where necessary to minimize effects, substantial cumulative impacts to the Coastal Zone are not anticipated.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. This area west of SR-1/Lincoln Boulevard contains non-native grasslands in existing conditions. This parcel is a part of the BWER and is therefore likely considered an ESHA by the Coastal Commission. Alternative 2A would not re-grade areas beyond the edge of the sidewalk at a 2:1 slope west of SR-1/Lincoln Boulevard at this location. These areas covered currently by non-native grasses would not be re-planted with native plant species as would occur under Alternative 2. Alternative 2A would result in less ground disturbance than Alternative 2 which would lead to fewer effects related to fugitive dust/air quality effects and storm water and water quality effects. The lesser amount of ground disturbance under Alternative 2A would result in less potential to encounter cultural, tribal cultural, and paleontological resources when compared to Alternative 2. When compared to Alternative 2, construction of Alternative 2A would decrease effects related to the following sections of the Coastal Act: Section 30223 (Upland Areas); Section 30231 (Biological productivity; water quality); Section 30240 (Environmentally sensitive habitat areas; adjacent developments); Section 30244 (Archaeological or paleontological resources); Section 30251 (Scenic and visual qualities); and Section 30252 (Maintenance and enhancement of public access). Otherwise, the construction effects of Alternative 2A related to the coastal zone would be the same as for Alternative 2.

<u>Operational Effects</u>

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER, an open space land use, and the west side of SR-1/Lincoln Boulevard north of Culver Boulevard. The retaining wall would provide benefits to future users of areas in the BWER west of this retaining wall and wildlife, which would have greater physical separation from the roadway. This would lead to increased perceived safety for users in this area, and potentially less roadway noise for these areas. The retaining wall could potentially be the target of graffiti once it is built which would be in conflict provisions contained in Section 30251 of the Coastal Act pertaining to Scenic and visual qualities. However, **MM VIS-5** would be implemented as part of Alternative 2A to minimize the effects of graffiti, which requires that anti-graffiti treatments be specified for all bridges, abutments, retaining walls, and noise barriers. When compared to Alternative 2, operation of Alternative 2A would decrease effects related to the following Sections of the Coastal Act: Section 30223

(Upland Areas); and Section 30240 (Environmentally sensitive habitat areas; adjacent developments); and Section 30252 (Maintenance and enhancement of public access). Through the introduction of a new retaining wall, Alternative 2A would result in increased effects related to consistency with Section 30251 (Scenic and visual qualities). Otherwise, Alternative 2A would result in the same effects related to the coastal zone as Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2A, cumulative effects related to the coastal zone would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

<u>Construction Effects</u>

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is Los Angeles County Flood Control District-(LACFCD)owned land on the east side of SR-1/Lincoln Boulevard which contains another portion of Fiji Ditch.

This would also result in fewer short-term impacts to resources within Fiji Ditch. As described in more detail in the biological resources analyses contained in Chapter 2.3.1, Wetlands, Fiji Ditch is a jurisdictional wetland area, an ESHA, and contains native vegetation.

Also, the reduced ground disturbance that would result from Alternative 2B would reduce impacts identified for Alternative 2 related to fugitive dust/air quality effects and storm water/water quality effects. Less ground disturbance would also result in less potential to encounter cultural, tribal cultural, and paleontological resources when compared to Alternative 2. When compared to Alternative 2, construction of Alternative 2B would decrease effects related to the following Sections of the Coastal Act: Section 30223 (Upland Areas); Section 30231 (Biological productivity; water quality); Section 30240 (Environmentally sensitive habitat areas; adjacent developments); Section 30244 (Archaeological or paleontological resources); and Section 30251 (Scenic and visual qualities). Otherwise, the construction impacts of Alternative 2B related to the coastal zone would be the same as for Alternative 2.

Operational Effects

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard which contains a portion of Fiji Ditch. Both properties are open space land uses with drainage facilities within them. The cantilevered sidewalks would result in no new aesthetic impacts when compared to Alternative 2 as these sidewalks would be at the same locations as the standard sidewalks that would be built under Alternative 2. There would be the same amount of impervious surface as with Alternative 2 so there would be no increase in the amount of storm water runoff when compared to Alternative 2. When compared to Alternative 2, operation of Alternative 2B would decrease effects related to the following Sections of the Coastal Act: Section 30223 (Upland Areas); Section 30231 (Biological productivity; water quality); Section 30240 (Environmentally sensitive habitat areas; adjacent developments); Section 30244 (Archaeological or paleontological resources); and Section 30251 (Scenic and visual qualities). Otherwise, the operational impacts of Alternative 2B related to the coastal zone would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to the coastal zone would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and identified as open space land uses. The increased ground disturbance that would result from Alternative 2C would incrementally increase impacts identified for Alternative 2 related to fugitive dust/air quality effects and storm water/water quality effects. More ground disturbance would also result in greater potential to encounter cultural, tribal cultural, and paleontological resources when compared to Alternative 2. When compared to Alternative 2, construction of Alternative 2C would increase effects related to the following Sections of the Coastal Act: Section 30223 (Upland Areas); Section 30231 (Biological productivity; water quality); Section 30240 (Environmentally sensitive habitat areas; adjacent developments); and Section 30244 (Archaeological or paleontological resources).

Otherwise, the construction impacts of Alternative 2C related to the coastal zone would be the same as for Alternative 2.

Operational Effects

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER and identified as open space land uses.

The bridge would appear wider for viewers; otherwise, Alternative 2C would be the same as Alternative 2 related to aesthetic impacts. Since the replacement Culver Bridge would be wider under Alternative 2C to accommodate additional space for bicyclists and pedestrians, there would be additional impervious surface than would occur under Alternative 2 so there would be an incremental increase in the amount of storm water runoff that would be generated by Alternative 2C when compared to Alternative 2.

When compared to Alternative 2, operation of Alternative 2C would increase effects related to the following Sections of the Coastal Act: Section 30223 (Upland Areas); Section 30231 (Biological productivity; water quality); Section 30240 (Environmentally sensitive habitat areas; adjacent developments); and Section 30244 (Archaeological or paleontological resources). However, Alternative 2C would more fully comply with Section 30252 (Maintenance and enhancement of public access) than would Alternative 2. Otherwise, operation of Alternative 2C would have the same effects related to the coastal zone Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to the coastal zone would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would be the same as Alternative 2 with the exception that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900.

Given the developed context of the ramp and adjacency to two major roadways, the addition of an additional ramp would have a minor aesthetic effect.

The increased ground disturbance that would result from Alternative 2D would incrementally increase impacts identified for Alternative 2 related to fugitive dust/air quality effects and storm water/water quality effects.

More ground disturbance would also result in greater potential to encounter cultural, tribal cultural, and paleontological resources when compared to Alternative 2.

When compared to Alternative 2, construction of Alternative 2D to add a new bicycle and pedestrian ramp would increase effects related to the following Sections of the Coastal Act: Section 30223 (Upland Areas); Section 30231 (Biological productivity; water quality); Section30240 (Environmentally sensitive habitat areas; adjacent developments); and Section 30244 (Archaeological or paleontological resources). However, with the addition of a new bicycle and pedestrian ramp, Alternative 2C would more fully comply with Section 30252 (Maintenance and enhancement of public access) than would Alternative 2. Otherwise, the construction impacts of Alternative 2D related to the coastal zone would be the same as for Alternative 2.

<u>Operational Effects</u>

Alternative 2D would require additional grading and permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900 that would not be constructed under Alternative 2, which is a part of the BWER and an open space land use. If Alternative 2D were to be implemented, approximately 840 square feet of additional permanent right-of-way would be required from APN 4211-015-900.

Since the additional ramp proposed under Alternative 2D is not included in Alternative 2C, there would be additional impervious surface than would occur under Alternative 2 and there would be an incremental increase in the amount of storm water runoff that would be generated by Alternative 2D when compared to Alternative 2.

Alternative 2D would install low-level pedestrian lighting that is not included in Alternative 2 that would increase the level of lighting locally when compared to Alternative 2 and when compared to existing conditions; however, the new lighting would be shielded and down-cast to minimize effects. This would decrease compatibility with Section 30251 of the Coastal Act related to scenic and visual qualities when compared to Alternative 2.

When compared to Alternative 2, operation of Alternative 2D would increase effects related to the following Sections of the Coastal Act: Section 30223 (Upland Areas); Section 30231 (Biological productivity; water quality); Section 30240 (Environmentally sensitive habitat areas; adjacent developments); and Section 30244 (Archaeological or paleontological resources). However, Alternative 2D would more fully comply with Section 30252 (Maintenance and enhancement of public access) than would Alternative 2. Otherwise, the operational impacts of Alternative 2D related to the coastal zone would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to existing and future land use would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

There are no avoidance, minimization, or mitigation measures that are specific to this resource topic.

The Project would require issuance of a Coastal Development Permit from the California Coastal Commission. The Project would be implemented in accordance with the terms and conditions of the Coastal Development Permit.

2.1.4 Parks and Recreational Facilities

Regulatory Setting

Park Preservation Act

The Park Preservation Act (California Public Resources Code [PRC] Sections 5400-5409) prohibits local and State agencies from acquiring any property which is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.

Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966, codified into federal law in 49 United States Code 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that the Secretary [of Transportation] may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land; and
- the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Environmental Setting

There are eight publicly owned parks, recreational facilities, and wildlife refuges within 0.5 mile of the project site that qualify as Section 4(f) resources. Each of these properties is listed in Table 2.1.4-1 and shown in Figure 2.1.4-1.

Table 2.1.4-1 – Public Parks, Recreational Facilities, Trails, and Wildlife Refuges in Proximity to the Project Site

Park/Facility	Location	Facilities	Ownership	Distance from Project	Section 4(f) Property?
Yvonne B. Burke Park	4400 Admiralty Way, Marina Del Rey, California 90292	8-acre linear park that runs parallel to Admiralty Way from the Lloyd Taber-Marina del Rey County Library to Parking Lot 7. The park includes a parcourse fitness circuit, benches, drinking fountains, and pet stations. A portion of the Marvin Braude Bike Trail runs through the park.	County of Los Angeles	0.50-mile northwest of the project site.	Yes
Marina del Rey Harbor	Marina del Rey, California	Small craft harbor, public boat launch ramp, boat slips, dry storage, walkways.	County of Los Angeles	0.30-mile west of the project site.	Yes
Burton W. Chace Park	13650 Mindanao Way, Marina del Rey, California 90292	10-acre park with a multi-purpose room, barbecues, pergolas, picnic shelters, harbor viewing areas, boat and fishing docks.	County of Los Angeles	0.42-mile west of the project site.	Yes
Fiji Gateway Park	Southwest corner of Fiji Way and SR-1/Lincoln Boulevard in unincorporated Los Angeles County	Passive pocket park, walking path, benches, and landscaping.	County of Los Angeles	Immediately west of and partially within the project site.	Yes
Glen Alla Park	4601 Alla Rd., Los Angeles, California 90292	4.8-acre park with basketball courts (lighted/outdoor), a children’s play area, picnic tables, and paddle tennis.	City of Los Angeles	0.33-mile north of the project site.	Yes

Park/Facility	Location	Facilities	Ownership	Distance from Project	Section 4(f) Property?
Ballona Creek Bike Path	7-mile bike path along the north bank of Ballona Creek from Syd Kronenthal Park in east Culver City to the Marvin Braude Bike Path.	Bike path along Ballona Creek.	Los Angeles County Department of Public Works Flood Control District	This trail crosses beneath SR-1/Lincoln Boulevard and is partially within the project site	Yes
Marvin Braude Bike Trail (formerly known as The Strand and/or the South Bay Bicycle Trail)*	Bicycle path that runs along the Los Angeles County coastline, from the northern terminus at Will Rogers State Beach to the southern terminus at Torrance County Beach.	22-mile paved bicycle path that runs along the Los Angeles County coastline, from its northern terminus at Will Rogers State Beach to its Southern Terminus at Torrance County Beach.	County of Los Angeles	This trail occurs 0.14 mile west on Admiralty Way at its closest to the project site.	Yes
Ballona Wetlands Ecological Reserve (BWER)	East and West of SR-1/Lincoln Boulevard North of Ballona Creek; Portions of Ballona Creek; and West of SR-1/Lincoln Boulevard South of Ballona Creek.	577-acre ecological reserve.	State of California	Immediately adjacent to partially within the project site.	Yes

* The Marvin Braude Bike Trail received $626,918 in Land and Water Conservation Fund (LWCF) funds to, “develop a 19-mile bike trail along the beach from Santa Monica to (the) City of Torrance.” Therefore, this trail is considered a Section 4(f) and Section 6(f) resource.

Sources: CPAD 2024a, City of Los Angeles 2023a, County of Los Angeles 2022b, California Department of Parks and Recreation 2019a, 2019b, and 2019c.

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Since Alternative 1 would involve no construction, there would be no short-term effects to parks or recreational areas. No detour of Ballona Creek Bike Path or temporary construction easements within Fiji Gateway Park or BWER would be required under Alternative 1.

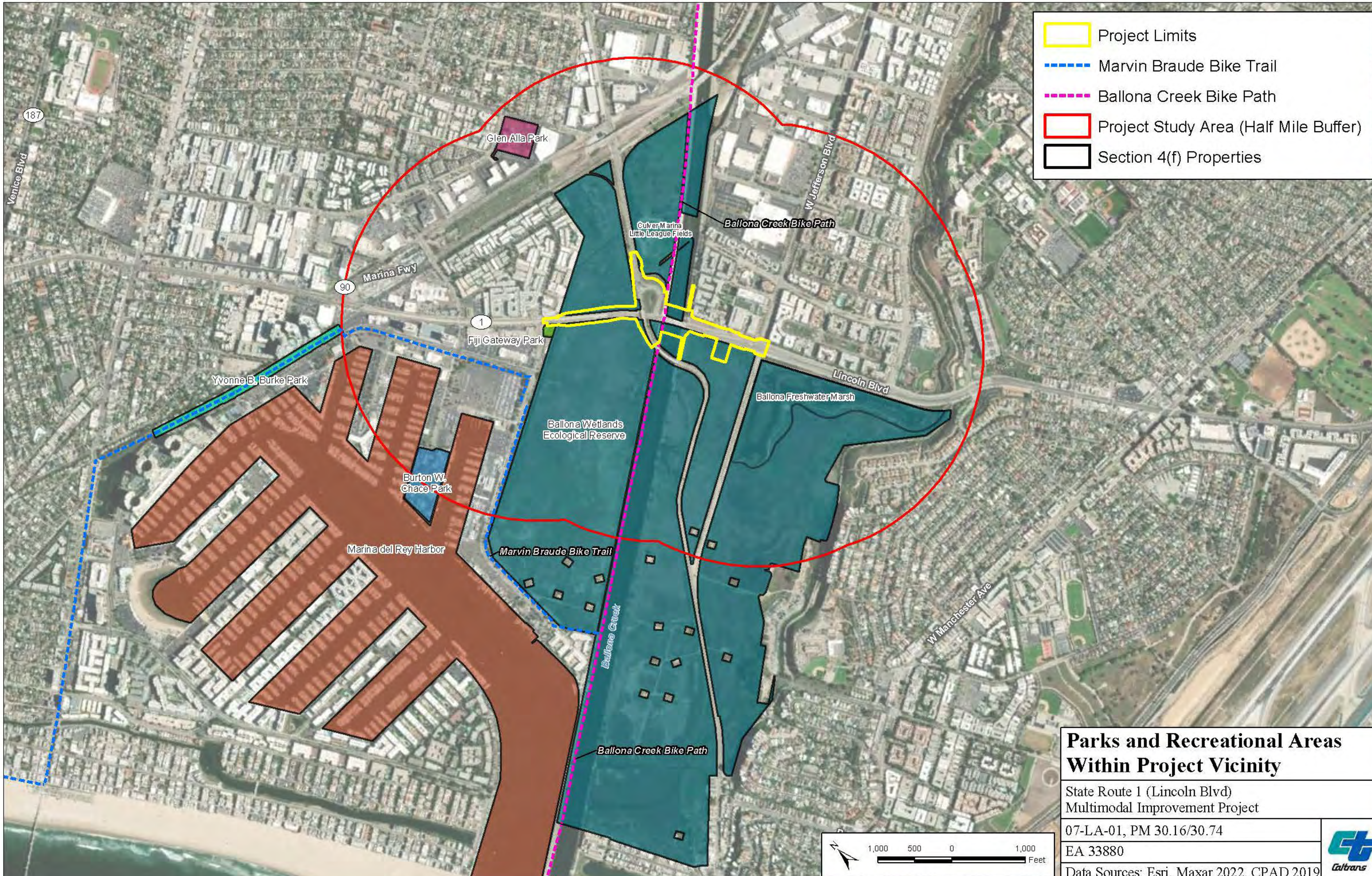

Project Limits
Marvin Braude Bike Trail
Ballona Creek Bike Path
Project Study Area (Half Mile Buffer)
Section 4(f) Properties
Glen Alla Park
Culver Marina Little League Fields
Ballona Creek Bike Path
W Jefferson Blvd
Venice Blvd
187
90
Marina Fwy
1
Fiji Gateway Park
Yvonne B. Burke Park
Lincoln Blvd
Ballona Freshwater Marsh
Ballona Wetlands Ecological Reserve
Burton W. Chace Park
Marina del Rey Harbor
Marvin Braude Bike Trail
Ballona Creek
W Manchester Ave
Ballona Creek Bike Path
1,000 500 0 1,000 Feet
Parks and Recreational Areas Within Project Vicinity
State Route 1 (Lincoln Blvd) Multimodal Improvement Project
07-LA-01, PM 30.16/30.74
EA 33880
Data Sources: Esri, Maxar 2022, CPAD 2019
Caltrans

Figure 2.1.4-1

Operational Effects

Alternative 1 would not require acquisition from any parks or recreational areas given that no improvements would occur under this alternative. Alternative 1 would not provide a sidewalk to improve access to Fiji Gateway Park. Alternative 1 would also not provide sidewalks and bike lanes along SR-1/Lincoln Boulevard to improve access to Ballona Creek Bike Path, the BWER, and nearby communities.

Cumulative Effects

Since Alternative 1 would involve no construction or operational effects, Alternative 1 has no potential to contribute to cumulative effects related to parks and recreational resources.

Alternative 2 – Base Alternative

Alternative 2 would result in impacts to the BWER, Ballona Creek Bike Path, and Fiji Gateway Park. More details are provided below.

Construction Effects

Ballona Wetlands Ecological Reserve (BWER)

Alternative 2 would require temporary construction easements within nine parcels within the BWER consisting of 4.6 acres in total. The areas that would be temporarily affected within the BWER consist primarily of upland mustards, open water areas in the Ballona Creek channel, as well as a few smaller patches of California Sagebrush Scrub, Menzie's Golden Bush Scrub, Semi-Natural Herbaceous Stand, and Annual Brome Grassland as shown in Figure 2.1.4-2 (Psomas 2024b). Temporary construction easement areas within the BWER would be re-landscaped in coordination with CDFW as required by **MM REC-1.** Also, please refer to the biological resources analyses contained in Chapter 2.3, Biological Resources, for a discussion of effects to biological resources within the BWER.

The BWER is not currently accessible to the public and based on the current status of the Ballona Wetlands Restoration Project, it is anticipated that Alternative 2 would be built prior to the trails within the BWER. Therefore, Alternative 2 construction activities would not adversely affect public recreation within the BWER.

Ballona Creek Bike Path

The Ballona Creek Bike Path starts at Syd Kronenthal Park in east Culver City and extends approximately 7 miles to the Marvin Braude Bike Path that connects to locations north and south along the beach. Within the project site, the Ballona Creek Bike Path occurs on property owned by the Los Angeles County Department of Public Works Flood Control District (LACFCD). The

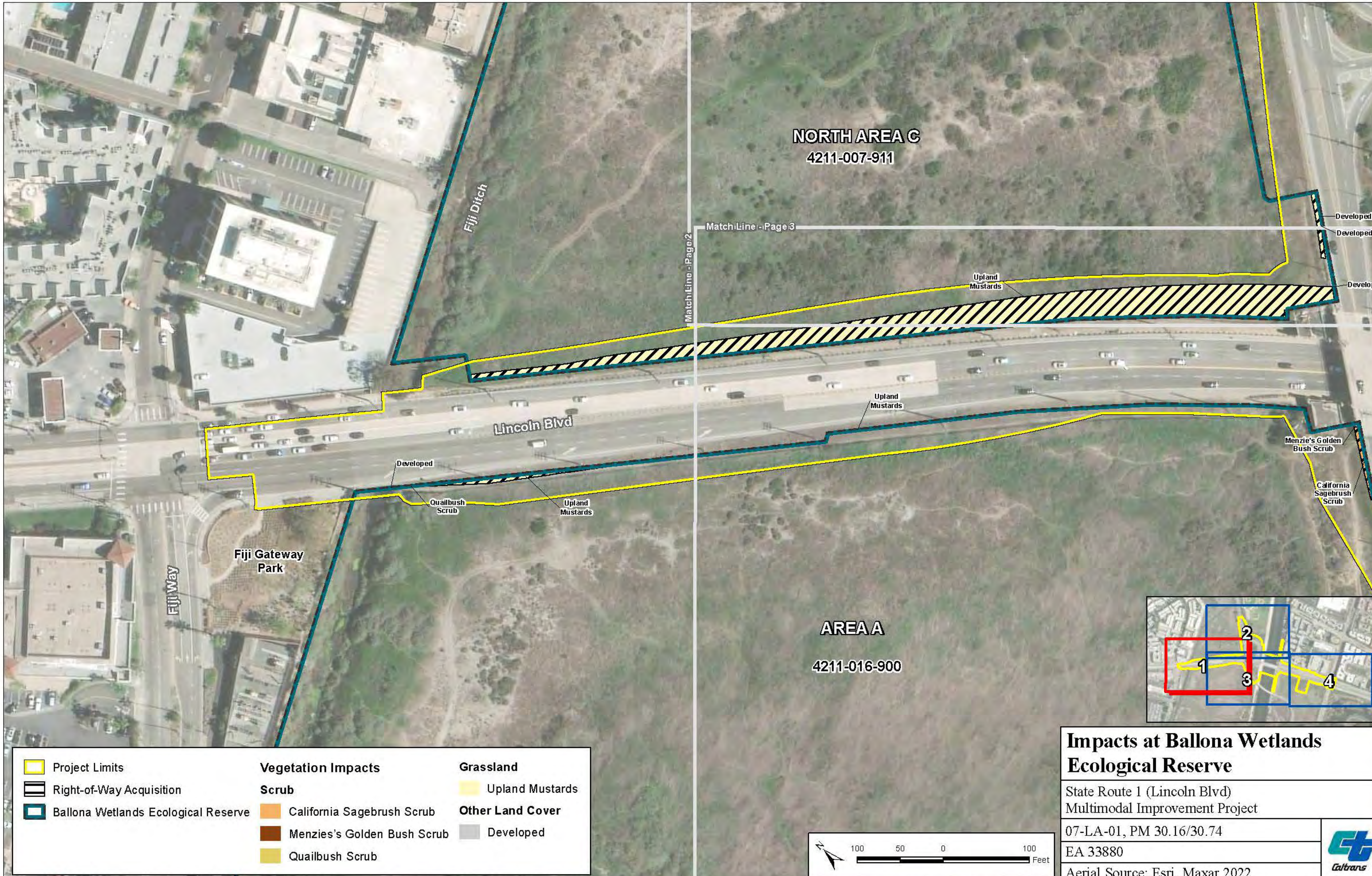
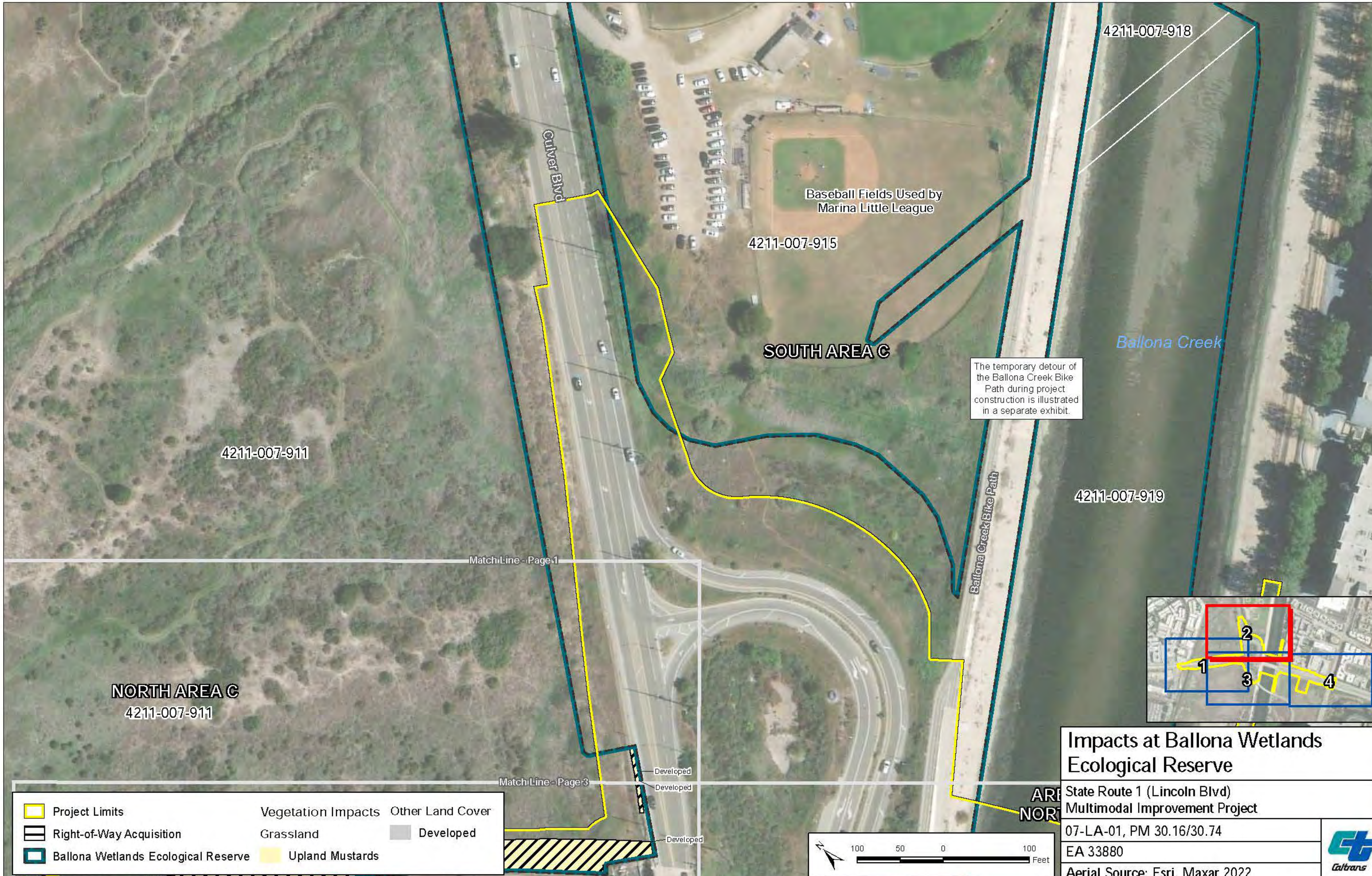


Figure 2.1.4-2 - Page 1



Impacts at Ballona Wetlands Ecological Reserve

State Route 1 (Lincoln Blvd)
Multimodal Improvement Project

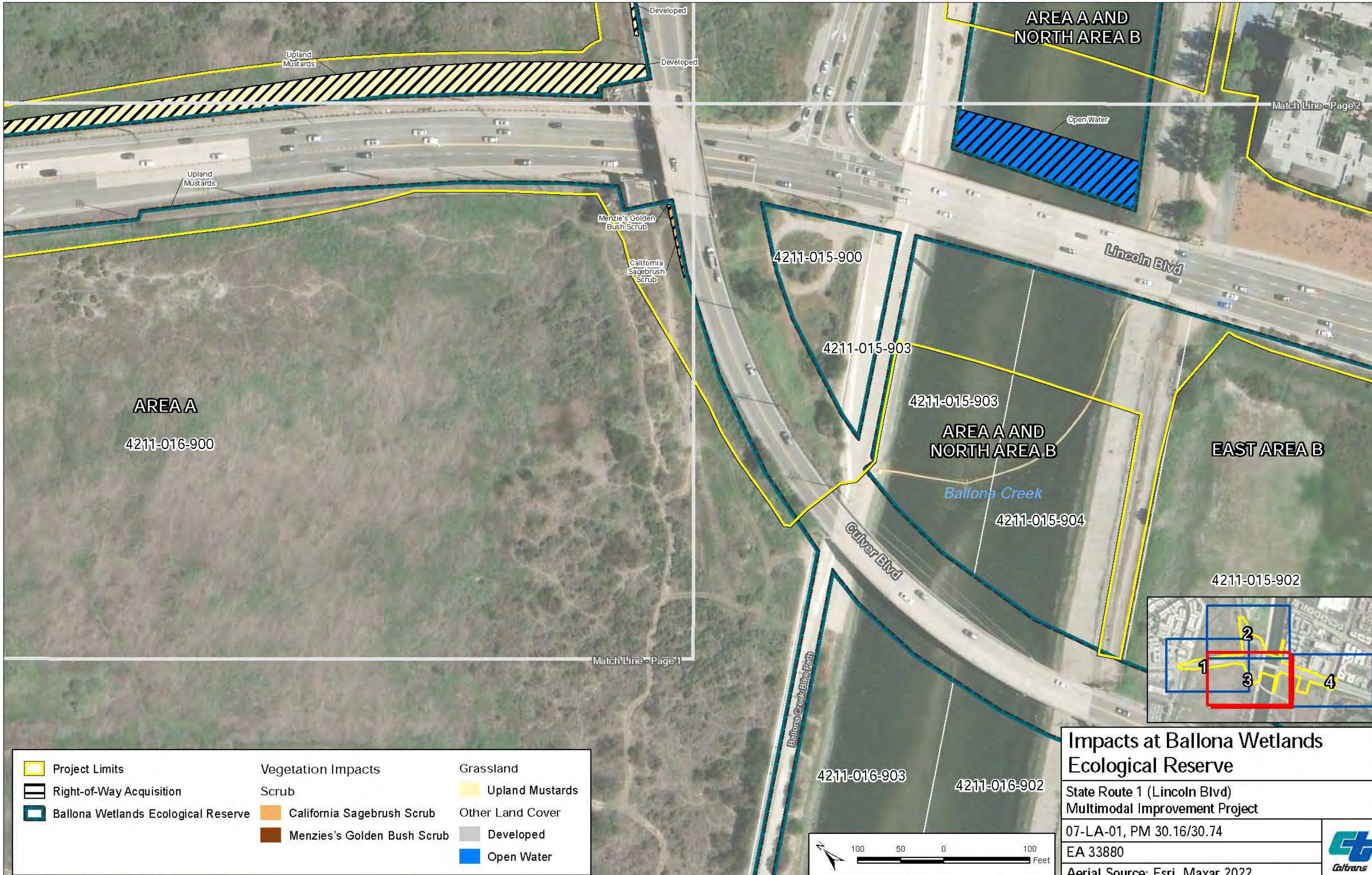
07-LA-01, PM 30.16/30.74

EA 33880

Aerial Source: Esri, Maxar 2022

Caltrans

Figure 2.1.4-2 - Page 2



Impacts at Ballona Wetlands Ecological Reserve

State Route 1 (Lincoln Blvd)
Multimodal Improvement Project

07-LA-01, PM 30.16/30.74

EA 33880

Aerial Source: Esri, Maxar 2022

Caltrans

Figure 2.1.4-2 - Page 3

Impacts at Ballona Wetlands Ecological Reserve

State Route 1 (Lincoln Blvd)
Multimodal Improvement Project

07-LA-01, PM 30.16/30.74

EA 33880

Aerial Source: Esri, Maxar 2022

Caltrans

Figure 2.1.4-2 - Page 4

County of Los Angeles Department of Public Works Bikeways Unit manages the Ballona Creek Trail west of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek. The City of Los Angeles Department of Transportation manages the Ballona Creek Trail east of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek (Trail Link 2022a). A summary of outreach that has occurred to the County of Los Angeles Department of Public Works Bikeways Unit and to the City of Los Angeles Department of Transportation are provided in Chapter 4, Comments and Coordination.

There are existing ramp entrances on the northbound and southbound sides of SR-1/Lincoln Boulevard providing access to the Ballona Creek Bike Path; however, these ramps do not lead to any dedicated bicycle or pedestrian connections. Northbound SR-1/Lincoln Boulevard does not have bicycle or pedestrian facilities north of the Ballona Creek Bridge, and currently there are no bike or pedestrian facilities on either side of the SR-1/Lincoln Boulevard Bridge over Ballona Creek. South of Ballona Creek, SR-1/Lincoln Boulevard has a sidewalk on the northbound side of SR-1/Lincoln Boulevard, but no sidewalk exists on the southbound side and no dedicated bicycle facilities exist in either direction.

Key activities provided by the Ballona Creek Bike Path are bicycling, walking, and running. Key features and attributes enjoyed from the Ballona Creek Bike Path include connectivity to the Marvin Braude Bike Path and coastal destinations accessible from the Marvin Braude Bike Path. A secondary key feature of the Ballona Creek Bike Path within the project site is the view of the BWER enjoyed by users of the path.

To allow for the demolition of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek and to allow for construction of a replacement bridge, Alternative 2 would require the temporary detour of the Ballona Creek Bike Path to a signalized crossing of SR-1/Lincoln Boulevard that would be located at Culver Boulevard, as required by **MM REC-2**. The detour of the Ballona Creek Bike Path would last no more than one year. Alternatively, if desired, the City may instead provide a temporary detour that crosses beneath SR-1/Lincoln Boulevard at a slightly different alignment.

As specified in **MM REC-3**, Ballona Creek Bike Path would be rebuilt, realigned, and reprofiled to accommodate the new Ballona Creek bridge. After construction of Alternative 2 is completed, the temporary detour would be removed and the alignment beneath the new SR-1/Lincoln Boulevard Bridge over Ballona Creek would be opened for use.

Fiji Gateway Park

The Fiji Gateway Park is a pocket park located at the southwest corner of Fiji Way and SR-1/Lincoln Boulevard. The Fiji Gateway Park is owned and managed by the Los Angeles County Department of Beaches and Harbors. The park includes walking path, benches, and landscaping.

Alternative 2 would require 0.03 acres of partial right-of-way acquisition from the Fiji Gateway Park. These areas that would be acquired would be utilized by Alternative 2 to widen the existing narrow sidewalk along the edge of the park to eight-foot-wide sidewalks and to provide a sidewalk connection where there is currently a gap. Areas that would be acquired consist of landscaping.

Alternative 2 would also requires 0.03 acres of temporary construction easements from the Fiji Gateway Park that would be utilized to construct the new sidewalk and other Alternative 2 improvements. Areas of the park that would be utilized as temporary construction easement areas consist of landscaped areas with a portion of a decomposed granite walkway. Temporarily disturbed areas within the Fiji Gateway Park would be re-landscaped in consultation with the County Department of Beaches and Harbors in accordance with **MM REC-4.**

As detailed in Chapter 4, Comments and Coordination, members of the Project Development Team (PDT) reached out to staff from the Los Angeles County Department of Beaches and Harbors in October 2022 to discuss the Project and to present the current Alternative 2 design at Fiji Gateway Park.

Other Recreational Resources

Alternative 2 would not affect any water activities at nearby beaches. Fishing, kayaking, rowing, and stand up paddle boarding within the portion of Ballona Creek that occurs in the project site would be restricted temporarily by Alternative 2 construction activities. These recreational activities would still be able to be conducted downstream of the project site during construction. Once construction is completed, no effects to water-oriented activities would occur.

There are rowing clubs with boat houses in the marina that practice and compete on Ballona Creek, which provides the necessary 2,000 meter stretch that is required for competition (CDFW 2017a). These recreational activities may be temporarily disrupted during construction.

Finally, the baseball fields and associated infrastructure that are used by the Culver Marina Little League is east of the project site. Alternative 2 would not result in any direct effects to these baseball fields. During construction, access would be maintained at all times through the implementation of a Transportation Management Plan (TMP) as specified in **MM TRANS-1**.

<u>Operational Effects</u>

Ballona Wetlands Ecological Reserve (BWER)

Effects to the BWER Property/Resources

The existing SR-1/Lincoln Boulevard right-of-way is bound on both sides within much of the project site by the BWER. CDFW manages the entire BWER and owns most of the 566-acre BWER, with a 24-acre portion owned by the California State Lands Commission (CDFW 2017a).

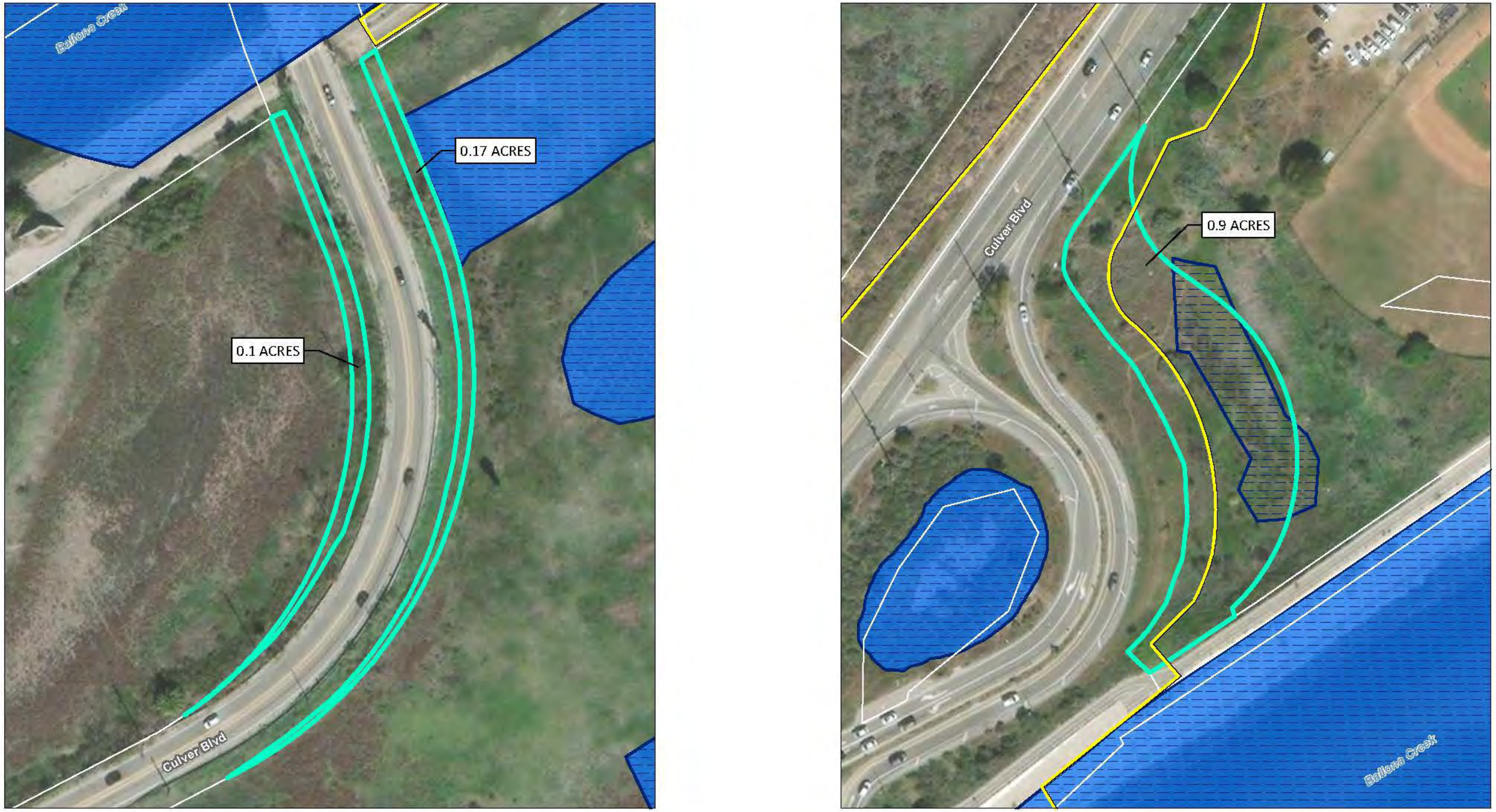
Alternative 2 involves partial right-of-way acquisition of a total of 1.17-acres from four parcels within the BWER, which are shown in Figure 2.1.4-2. The 1.17 acres of lands to be acquired from the BWER are not wetlands. Instead, these acquisition areas contain primarily upland mustard vegetation and open water land covers, with the exception of a few small patches of California Sagebrush Scrub (~2,500 square feet), Quailbush Scrub (~25 square feet), and Menzie's Golden Bush Scrub (~50 square feet; Psomas 2023b). As noted in **MM REC-5**, rather than acquiring land within the BWER through eminent domain, a land exchange between the City and CDFW would be further evaluated and coordinated during final design as a way of potentially mitigating for partial right-of-way acquisition from the BWER. If approved by CDFW, Alternative 2 would compensate for acquisition of 1.17-acres from the BWER through the transfer of 1.17-acres of City-owned land that is adjacent to the BWER. A conceptual location which has been coordinated with CDFW is depicted in Figure 2.1.4-3 and Figure 2.1.4-4. Alternatively, if CDFW approvals are not obtained for a land exchange, Alternative 2 would instead compensate for partial right-of-way acquisition from the BWER through the right-of-way appraisal and acquisition process. This would result in a reduction in size of the BWER by 1.17 acres; however, CDFW would be compensated for the loss and could utilize such funds for their own acquisition and/or enhancement activities. Although the land exchange is discussed herein, the analyses of effects throughout this Draft EIR/EA assumes this worst-case scenario that the 1.17-acres would be acquired through eminent domain given that this discretionary approval may not be possible to obtain. This provides a worst-case scenario related to the biological resources and parks and recreation resource topics as it would reduce the size of the BWER by 1.17 acres.

Alternative 2 would involve the removal of existing chain link fencing that is located around the boundaries of the BWER within the project site. To minimize the potential for pedestrians and bicyclists from SR-1/Lincoln Boulevard and Culver Boulevard trespassing into the BWER and to prevent wildlife mortality on the roadway, **MM REC-6** has been incorporated as part of Alternative 2 requiring that replacement fencing be installed prior to the completion of construction anywhere that it was removed along the boundary of the BWER during Alternative 2 construction.

TOTAL ACREAGE SHOWN: 1.17 ACRES

Conceptual Land Exchange
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Psomas, 2022

Figure 2.1.4-3



Project Limits
Conceptual Land Exchange Areas Owned by City of LA
Jurisdictional Resources
CDFW
Coastal Commission

Project Limits
Conceptual Land Exchange Areas Owned by City of LA
Jurisdictional Resources
CDFW
Coastal Commission

TOTAL ACREAGE SHOWN: 1.17 ACRES

N
100 50 0 100 Feet

Conceptual Land Exchange

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas, 2022
Aerial: Esri, Maxar 2022

Caltrans

Figure 2.1.4-3

Project Limits
Conceptual Land Exchange Areas Owned by City of LA
Jurisdictional Resources
USACE Wetlands
USACE Non-Wetlands
RWQCB

Project Limits
Conceptual Land Exchange Areas Owned by City of LA
Jurisdictional Resources
USACE Wetlands
USACE Non-Wetlands
RWQCB

TOTAL ACREAGE SHOWN: 1.17 ACRES

N 100 50 0 100 Feet

Conceptual Land Exchange

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas, 2022
Aerial: Esri, Maxar 2022

Caltrans

Figure 2.1.4-3

Project Limits
Conceptual Land Exchange Areas Owned by City of LA
Grassland
Upland Mustards

Project Limits
Conceptual Land Exchange Areas Owned by City of LA
Grassland
Annual Brome Grassland
Semi-Natural Herbaceous Stand
Riparian
Mulefat Thicket

TOTAL ACREAGE SHOWN: 1.17 ACRES

N
100 50 0 100 Feet

Conceptual Land Exchange

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas, 2022
Aerial: Esri, Maxar 2022

Caltrans

Figure 2.1.4-3

Project Limits

Permanent Right-of-Way Acquisition Areas

Conceptual Land Exchange Areas Owned by City of LA

Ballona Wetlands Ecological Reserve

N 300 150 0 300 Feet

Permanent Impacts and Conceptual Land Exchange at the Ballona Wetlands Ecological Reserve

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas, 2022
Aerial: Esri, Maxar 2022

Caltrans

Figure 2.1.4-4

Effects Related to the Ballona Wetlands Restoration Project

The Ballona Wetlands Restoration project within the BWER is being led by CDFW in coordination with the Army Corps of Engineers and other agencies. CDFW certified a Final EIR for the Ballona Wetlands Restoration Project in December 2019. A Los Angeles County Superior Court judge recently issued a ruling on the Ballona Wetlands Restoration Project's EIR litigation. In this decision, CDFW is required to disclose and analyze new flood control design parameters and commit to additional environmental review if performance criteria changes. CDFW decertified the EIR on September 28, 2023, and is now proceeding to revise the document as per the court order. CDFW hopes to have a draft revised EIR available for public comment by Spring 2024 and depending on public input received on the draft revised EIR, a recertified EIR by the end of 2024, a reapproved project, and, barring further litigation, implementation of initial project sequences in 2025. The EIR analyzed a range of restoration alternatives. CDFW selected the most restorative option ("Alternative 1") but made a commitment to execute the project in phases – which will allow for restoration to begin without having the entire sum of funding in place. By utilizing a phased approach, CDFW will also be able to monitor and evaluate smaller phases of restoration. This phasing allows the restoration to pause, or even halt, and evaluate plant and animal resources to ensure appropriate protective actions and implementation of adaptive management. (CDFW 2017a, 2022a, 2022b, 2022c, 2024a).

A comment letter was received from CDFW during the scoping period in response to the Notice of Preparation (NOP) on April 17, 2018. All comment letters received during the scoping period are provided in Appendix D of this Draft EIR/EA.

In June 2021, emails were exchanged between the PDT and Richard Brody at CDFW and phone calls occurred to discuss biological technical studies that were being undertaken for the Project.

In addition to telephone and e-mail correspondence, a formal meeting occurred between the PDT and staff from CDFW on August 30, 2021. Thereafter, additional focused meetings occurred with the PDT and staff from CDFW and California Coastal Commission on November 10, 2022, and March 22, 2023. From November 2022 through March 2023, additional correspondence occurred between members of the PDT and Erika Cleugh at CDFW in which the PDT provided Ms. Cleugh with additional information related to partial right-of-way acquisition areas under Alternatives 2, 2A, 2B, 2C, and 2D, and proposed exchange lands that were being offered for consideration. Attendees at one or more of these meetings from CDFW included: Richard Brody, Erika Cleugh, Erinn Wilson-Olgin, Tim Dillingham, and Victoria Tang. Key topics discussed during these meetings included:

- The exchange information;
- Discussing ways to ensure consistency between the Project and the Ballona Wetlands Restoration Project including pedestrian connections;
- Discussing approaches to landscaping of temporarily disturbed areas in the BWER;
- Discussing proposed right-of-way acquisition and land exchange opportunities; and
- Discussing CDFW's process for abandoning/exchanging lands that are within an ecological reserve.

Consistency With Bicycle and Pedestrian Improvements Planned Within the BWER

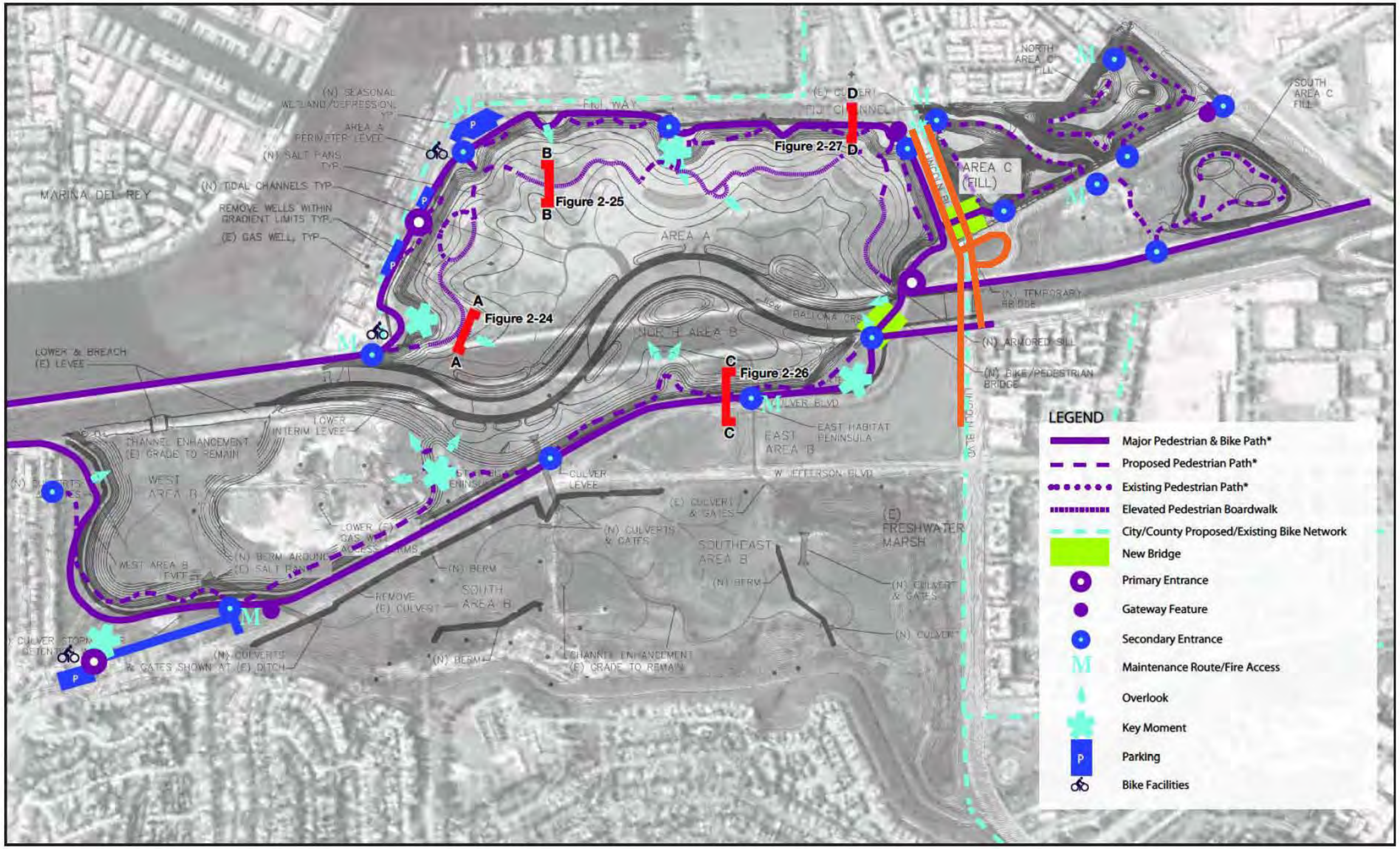
Alternative 2 has been designed to stand alone, but to also be fully compatible with the public access improvements that are planned within the BWER. A map showing connectivity between the two projects is provided as Figure 2.1.4-5.

As required by **MM REC-7**, during final design the City would coordinate with CDFW staff to confirm the status of CDFW's proposed circulation improvements, and to incorporate access paths at the four locations that are shown on Figure 2.1.4-5. The locations of these connections are approximate and would be coordinated with CDFW during final design. Alternative 2's access improvements would be limited to Alternative 2's impact footprint and would not extend into the BWER.

Also, as specified in **MM REC-8**, during final design the City would work with CDFW to develop and install informational and interpretive signage at the four locations that are shown on Figure 2.1.4-6. The purpose of this mitigation measure is to ensure compatibility amongst the Project and the adjacent BWER and to ensure that a place is available for a trail map, rules, and other relevant information to be posted. Another purpose of this mitigation measure is to provide locations where informational signage on local biology and/or local history can be provided to facilitate an improved understanding and appreciation for the BWER, Ballona Creek, and other natural resources.

Potential Cooperation with CDFW Related to Fill Dirt:

Alternative 2 would require a total of approximately 96,525 cubic yards of imported soil. As described in the Draft EIR prepared for the adjacent Ballona Wetlands Restoration project, that project would need to export up to 1,230,000 cubic yards of soil (Psomas 2023a, CDFW 2017a). Therefore, the Project presents an opportunity to reduce the amount of soil that is moved out of and into the Project vicinity. Fewer and shorter truck trips would result in less congestion on local roadways, fewer air quality effects, and could also save CDFW on costs to haul and dispose of some of their excess soil. As specified in **MM REC-9**, during final design the City would



Project Would Include New Sidewalks and Bicycle Lanes At These Locations Where None Currently Exist

Consistency With the Ballona Wetlands Ecological Restoration Project Public Access Plan

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: ESA, 2022

Caltrans

Figure 2.1.4-5

Admiralty Way
Fiji Way
Ballona Creek
Alla Rd
Playa Vista Dr
Bay St
Fountain Park Dr
EA Way
W Villosa Pl
Kiyot Way
Lincoln Blvd
Culver Blvd
W Jefferson Blvd
Project Boundary
Proposed Informational Signage Locations
Ballona Wetlands Ecological Reserve Public Access Plan:
Major Pedestrian and Bike Path
Proposed Pedestrian Paths
SR-1/Lincoln Boulevard Multimodal Project:
New Sidewalks and Bicycle Lanes Would Be Installed Along These Segments Where None Currently Exist
N
300 150 0 300
Feet
Proposed Informational Signage Locations
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
7-LA-1, PM 30.16/30.74
EA 07-33880
Aerial Source: Esri, Maxar 2022
Caltrans

Figure 2.1.4-6

coordinate with CDFW to determine if CDFW's restoration project would have excess fill dirt available at the time that the Project is planned to be constructed. If CDFW has excess fill dirt available at the time of Project construction, the City will conduct necessary geotechnical and hazardous materials testing and will evaluate the soil as necessary to determine its suitability for use as fill soil for the Project. If the soil is determined to be suitable for use, the soil will be utilized to the extent feasible to help achieve part or all of the Project's required 96,524 cubic yards of imported soil. Given that it is not definitively known as to whether or not CDFW will have this soil available at the time of Project construction, the Project's air quality, energy, and transportation analyses assume a worst-case scenario that soil would be imported from off-site.

BWER's Proposed Pedestrian Bridge Over SR-1/Lincoln Boulevard:

Due to the realignment of the roadway, Alternative 2 would require the demolition of two existing abutments that are located just north of the Culver Boulevard overcrossing of SR-1/Lincoln Boulevard. CDFW's Ballona Wetlands Ecological Restoration project assumed that as part of that project, they would re-use these two existing abutments to construct a pedestrian bridge structure at this location (CDFW 2017a). However, based on a preliminary review by civil and structural engineers at Psomas, it does not appear that these existing abutments could be feasibly re-used in existing conditions given that they would not provide adequate vertical clearance over the existing SR-1/Lincoln Boulevard, and they would likely cost more to structurally retrofit than to demolish and construct new. This information was communicated to CDFW staff during meetings held in 2022 and 2023. Given the existing abutments could not feasibly be utilized, there is no substantial adverse effect anticipated to CDFW's implementation of the Ballona Wetlands Ecological Restoration Project.

Consistency with Sea Level Rise and Stormwater Improvements Proposed Within the BWER:

CDFW's Ballona Wetlands Restoration Project would accommodate sea level rise through the construction of gently sloping earthen levees that will allow the restored wetland to migrate upslope as sea level rises. As part of the restoration project, new, broadly-sloping, partially-earthen levees would surround the BWER that would protect surrounding development from potential flooding from Ballona Creek. By doing so, CDFW's restoration project would help to improve climate resiliency by providing decades of additional buffer from sea level rise for existing roads and nearby homes and businesses (CDFW 2017a). Alternative 2 would not affect any of these earthen levees as they are located outside of the project site.

Also, CDFW's restoration project would construct an armored sill that would be 570 feet in length along the channel by 190 feet across the channel from the Culver Boulevard Bridge to the SR-1/Lincoln Boulevard Bridge. The sill would be located where flows diverge from the existing confined channel into the future planned wetlands in the BWER. CDFW is constructing the sill as part of the restoration project to limit excessive erosion that they anticipate will be caused by the effects of flow acceleration at the entrance to the wetlands.

Alternative 2 would not impair CDFW's ability to implement these improvements. The armored sill that CDFW would construct is downstream (west) of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek. Alternative 2 would widen on the upstream side (east); therefore, Alternative 2 would not conflict with the armored sill proposed as part of the Ballona Wetlands Restoration Project.

Consistency Wildlife Improvements Identified Within the BWER:

Ballona Creek Bike Path

Alternative 2 would provide new sidewalks and bicycle lanes on both sides of SR-1/Lincoln Boulevard that would allow for better connectivity to and from the Ballona Creek Bike Path from existing communities north and south of the creek. No adverse effects would result from the Project during operations.

Fiji Gateway Park

Alternative 2 would result in the partial acquisition of a streetside portion of the Fiji Gateway Park to construct a new sidewalk where no sidewalk currently exists. The area to be acquired is landscaped and is not a critical area for public usage of the park. Alternative 2 would provide sidewalks and bicycle lanes on both sides of the road near the park, which would improve access to Fiji Gateway Park. No adverse effects would result from the Project during operations.

Other Recreational Resources

Alternative 2 would result in improved mobility for bicycles, pedestrians, transit, and motorists along SR-1/Lincoln Boulevard. Alternative 2 would provide bicycle and pedestrian connections to Ballona Creek Bike Path where there are currently no sidewalks or bike lanes. Therefore, the Project would improve access to the beach and to other coastal destinations during operations.

<u>Cumulative Effects</u>

Alternative 2 would include temporary construction easements and partial right-of-way acquisition from the Fiji Gateway Park. Although it would be smaller once Alternative 2 is implemented, Fiji Gateway Park would be enhanced with a new sidewalk along the west side of SR-1/Lincoln Boulevard that would provide better access to this small passive park. No other cumulative projects would have direct effects to Fiji Gateway Park.

Alternative 2 would reduce the amount of acreage within the BWER by 1.17 acres, which is a rare, publicly-owned ecological reserve. There are no privately-owned parcels for sale that are adjacent to the BWER that could be utilized as replacement lands. Therefore, any reduction in the size of the BWER would be considered cumulatively significant as it could not be reasonably be replaced. However, Alternative 2 has been designed to complement the BWER that would result once the Ballona Wetlands Restoration Project through the provision of improved bicycle and pedestrian access and through the re-planting of temporary impact areas within the BWER, which would minimize the cumulative effects of Alternative 2 related to the BWER.

The widening that would occur under Alternative 2 would eliminate the need for future widening of SR-1/Lincoln Boulevard into the BWER that would be required if/when future Bus Rapid Transit or Light Rail Transit are implemented by Metro or others, which would reduce cumulative effects to the BWER.

The Ballona Creek Bike Path would be temporarily detoured during the construction of Alternative 2. During construction of the Ballona Wetlands Restoration Project, there would also be similar detours. These construction detours would be a temporary inconvenience to trail users; however, ultimately these improvements would lead to a better local and regional experience on the bike path. Therefore, no cumulative effects to the Ballona Creek Bike Path would result from the Project.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. Construction of Alternative 2A would not include the re-grading of areas beyond the edge of the future sidewalk at a 2:1 slope west of SR-1/Lincoln Boulevard at this location since a retaining wall would be built instead to avoid these impacts. These areas consist primarily of disturbed non-native stands of mustard in existing conditions which would be re-planted once construction work is completed which would lead to improved aesthetic and biological conditions of these areas in the long-term. In summary, Alternative 2A would result in fewer temporary construction impacts to the BWER, but would not result in re-planting of a slope that is currently covered with non-native invasive grasses. Otherwise, Alternative 2A would result in the same construction effects related to parks and recreational resources as Alternative 2.

Operational Effects

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER, an open space land use, and the west side of SR-1/Lincoln Boulevard north of Culver Boulevard. The retaining wall would provide benefits to future users of areas in the BWER west of this retaining wall and wildlife, which would have greater physical separation from the roadway. This would lead to increased perceived safety for users in this area, and potentially less roadway noise for these areas. Alternative 2A would not result in the restoration of the slope west of SR-1/Lincoln Boulevard in the BWER since it would not be temporarily used during construction. Otherwise, the operational effects of Alternative 2A related to parks and recreational resources would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to parks and recreational resources would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard which contains a portion of Fiji Ditch. Both of these parcels are adjacent to the BWER. By reducing effects to these two parcels, Alternative 2B would reduce indirect effects (e.g., noise, vibration, air quality, etc.) to the BWER when compared to Alternative 2. Otherwise, the construction effects of Alternative 2B related to parks and recreational resources would be the same as for Alternative 2.

Operational Effects

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard and contains a portion of Fiji Ditch. Neither of these parcels is part of the BWER but both are designated as open space land uses. Otherwise, Alternative 2B would result in the same operational effects to parks and recreational resources as Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2B, cumulative effects related to parks and recreational resources would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and identified as open space land uses. Otherwise, Alternative 2C would result in the same construction effects related to parks and recreational resources as Alternative 2.

<u>Operational Effects</u>

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER and identified as open space land uses. Alternative 2C would include a wider Culver Boulevard Bridge over SR-1/Lincoln Boulevard. Under Alternative 2C, the new Culver Boulevard bridge would be approximately 12 feet wider to accommodate a two-lane bicycle/pedestrian path. As part of the Ballona Wetlands Restoration Project, CDFW plans to construct a new bridge spanning SR-1/Lincoln Boulevard north of Culver Boulevard Bridge. CDFW plans to use their new bridge initially to transport earthen fill between Area A and Area C of the BWER during restoration and, later as a permanent structure to facilitate bicycle and pedestrian mobility as part of the public access plan. Alternative 2C could represent substantial cost savings for CDFW if they chose not to build their own parallel bridge. The wider bridge under Alternative 2C would be designed to accommodate the weight of the earth moving equipment that CDFW anticipates needing to transfer across the bridge (e.g., belly loaders, bulldozers, backhoes, work trucks), which CDFW would need to use temporarily as part of the grading operations planned for in the Ballona Wetlands Restoration Project. Then, the City would convert this area along the bridge to be a 12-foot-wide, two-lane bicycle/pedestrian path. This would be similar to what is called for in the Ballona Wetlands Restoration Project at this location. The proposed 12-foot path would be 8 feet narrower than the 20-foot-wide path that CDFW notes in their restoration plan for just north of this location, but

CDFW would not have to pay for or maintain the bridge[19]. As there would be no separate bicycle and pedestrian facilities, bicyclists and pedestrians would jointly utilize the two-lane, 12-foot path along the bridge under Alternative 2C, in contrast to the separated and buffered bicycle and pedestrian paths that are shown in CDFW's Ballona Wetlands Restoration Project public access and trails documentation. The path would be separated from traffic by a concrete barrier that would be approximately 32-inches-high and 24-inches-wide. Until CDFW builds their planned public trails on both sides of SR-1/Lincoln Boulevard north of Culver Boulevard within the BWER, this northern area of the new Culver Boulevard bridge would be fenced, closed to the public, and utilized only for Caltrans/City maintenance of the bridge facility or for other CDFW-authorized uses. Otherwise, the operational effects of Alternative 2C related to parks and recreational resources would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to parks and recreational resources would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would be the same as Alternative 2 with the exception that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900. Given that this parcel is a part of the BWER, Alternative 2D would increase temporary construction effects to the BWER when compared to Alternative 2. Otherwise, the construction effects of Alternative 2D related to parks and recreational resources would be the same as for Alternative 2.

[19] 20-feet was calculated based on the Ballona Wetlands Restoration Plan's typical cross section for a typical pedestrian and bicycle trail, which shows a typical 12-foot two-way bike path, a 2-foot planting buffer, and a 6-foot pedestrian path. For more information, see Figure 2-27 in CDFW 2017a.

Operational Effects

Alternative 2D would require additional grading and permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900 that would not be constructed under Alternative 2, which is a part of the BWER. If Alternative 2D were to be implemented, approximately 840 square feet of additional permanent right-of-way would be required from APN 4211-015-900. Under Alternative 2D, the City would own and manage the entire ramp. Partial acquisition areas from the BWER would be compensated for in the same manner and at the same rate as is specified for Alternative 2. Given that the additional parcel that would be acquired from under Alternative 2D is an open space land use, Alternative 2D would increase operational effects to open space land uses when compared to Alternative 2.

The additional ramp that would be built as part of Alternative 2D would provide improved pedestrian and bicyclist connectivity in the vicinity of the BWER.

Otherwise, the operational effects of Alternative 2D related to parks and recreational resources would be the same as for Alternative 2.

Cumulative Effects

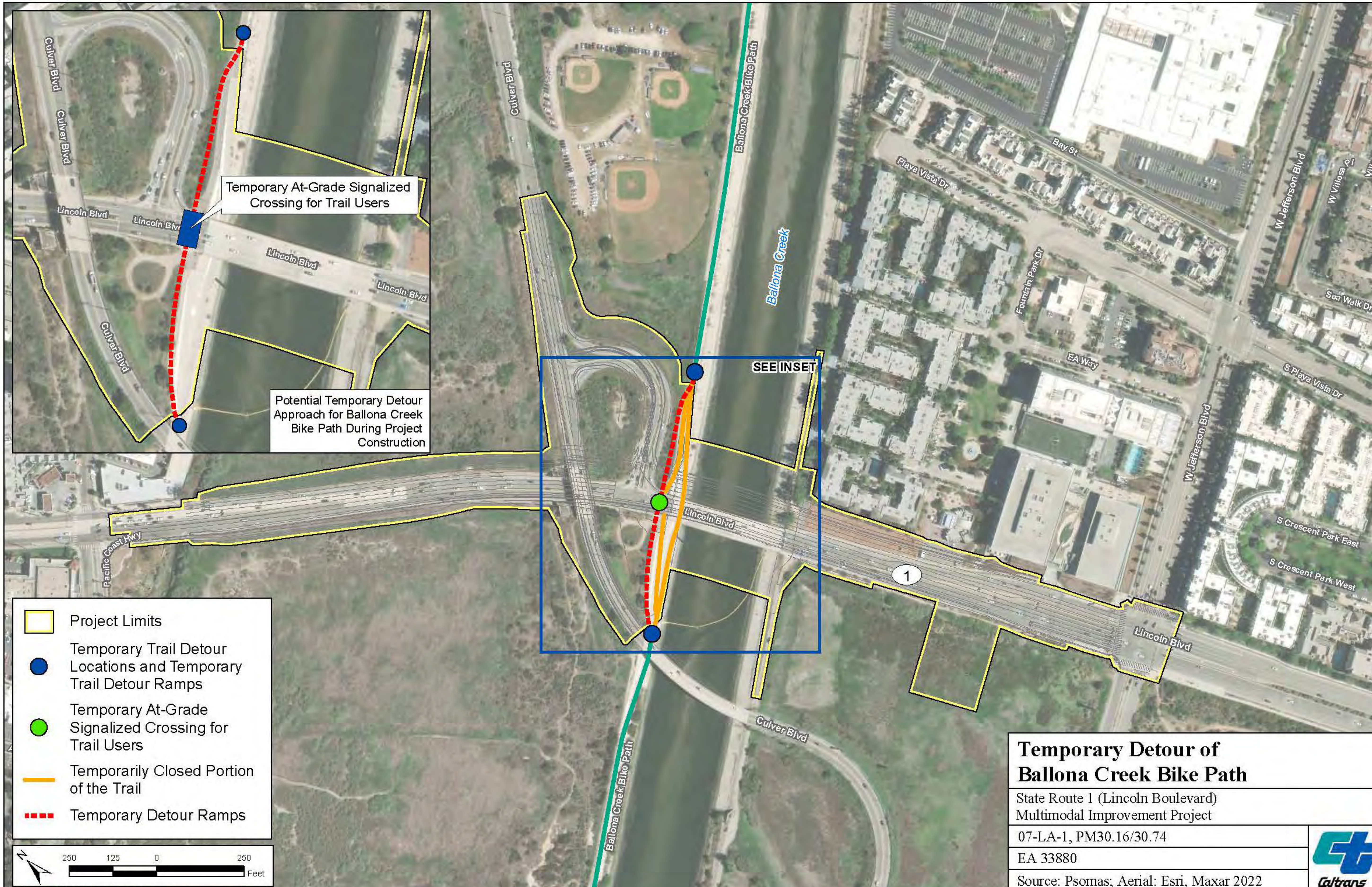
Under Alternative 2D, cumulative effects related to parks and recreational resources would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM REC-1:** Prior to the completion of construction, the City shall prepare and coordinate with CDFW to obtain approval of a landscaping plan for the Project's temporary impact areas within the BWER. New landscaping shall consist of plant species selected in consultation with CDFW. The City shall implement the landscaping of temporary impact areas as soon as feasible after construction in each area of the project site is completed. Thereafter, CDFW shall maintain and manage these areas as needed as part of the BWER. Also, see **MM VIS-3** regarding requirements for the landscaping of temporary impact areas.
- **MM REC-2:** A detour of the Ballona Creek Bike Path shall be provided during construction until **MM REC-3** is implemented. The detour shall consist of an at-grade, signalized crossing of SR-1/Lincoln Boulevard that will be located north of Ballona Creek and South of Culver Boulevard as shown in Figure 2.1.4-7. Public notification signage will be installed at least thirty days prior to implementation of the detour. This detour will be coordinated with the Transportation Management Plan (TMP) required as

MM TRANS-1. Alternatively, if desired the City may provide a temporary detour that crosses beneath SR-1/Lincoln Boulevard at a slightly different alignment.

- **MM REC-3**: Prior to the completion of construction, the Ballona Creek Bike Path alignment beneath SR-1/Lincoln Boulevard will be built and opened. Also, ADA-compliant access ramps will be constructed from the Bike Path that connect to the east and west sides of SR-1/Lincoln Boulevard immediately north of Ballona Creek, similar to pre-Project conditions.
- **MM REC-4**: Temporarily disturbed areas within the Fiji Gateway Park will be re-landscaped in consultation with the County Department of Beaches and Harbors. Also, see **MM VIS-3** regarding requirements for the landscaping of temporary impact areas**.**
- **MM REC-5:** The Project will compensate for acquisition of 1.17-acres from the Ballona Wetlands Ecological Reserve through the transfer of 1.17-acres of City-owned land that is adjacent to the Ballona Wetlands Ecological Reserve. Conceptual locations for this land exchange have been coordinated with CDFW are depicted in Figure 2.1.4-3 and Figure 2.1.4-4. Alternatively, if CDFW approvals are not obtained for a land exchange due to the numerous discretionary approvals that will be required, the Project will instead compensate for partial right-of-way acquisition from the Ballona Wetlands Ecological Reserve through the right-of-way appraisal and acquisition process.
- **MM REC-6**: Fencing needs to be removed along both sides of SR-1/Lincoln Boulevard along the existing property line with the BWER to allow for construction of Alternative 2. During final design, all fencing removal and replacement locations along the boundary with the BWER shall be identified and specified in the plans. Prior to the completion of construction, the City shall ensure that permanent replacement fencing is installed at all locations where it was removed along the boundary of the project site where it borders the BWER. Replacement fencing will consist of standard 6-foot-tall chain link fencing. Plans for fencing removals and replacements shall be provided to CDFW staff for review and concurrence prior to implementation.
- **MM REC-7:** During final design of the Project, the City shall coordinate with CDFW staff to confirm the status of CDFW's proposed circulation improvements, and to incorporate access paths at the four locations that are shown on Figure 2.1.4-5. The locations of these connections is approximate and will be coordinated with CDFW during final design. The Project's access improvements will be limited to the Project's impact footprint and will not extend into the BWER.
- **MM REC-8:** During final design and as part of the Project, the City will work with CDFW to develop and install informational and interpretive signage at the four locations



Temporary At-Grade Signalized Crossing for Trail Users
Potential Temporary Detour Approach for Ballona Creek Bike Path During Project Construction
SEE INSET
Culver Blvd
Lincoln Blvd
Ballona Creek Bike Path
Ballona Creek
Pacific Coast Hwy
Bay St
Playa Vista Dr
W Jefferson Blvd
W Villosa Pl
Villosa Pl
Fountain Park Dr
EA Way
S Playa Vista Dr
Sea Walk Dr
S Crescent Park East
S Crescent Park West
1
Project Limits
Temporary Trail Detour Locations and Temporary Trail Detour Ramps
Temporary At-Grade Signalized Crossing for Trail Users
Temporarily Closed Portion of the Trail
Temporary Detour Ramps
250 125 0 250
Feet
Temporary Detour of Ballona Creek Bike Path
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Psomas; Aerial: Esri, Maxar 2022
Caltrans

Figure 2.1.4-7

that are shown on Figure 2.1.4-6, or other locations within the Project's impact footprint that are preferred by CDFW. The primary intent of this mitigation measure is to ensure compatibility amongst the Project and the adjacent BWER and to ensure that a place is available for a trail map, rules, and other relevant information to be posted. A secondary purpose of this mitigation measure is to provide locations where informational signage on local biology and/or history can be provided to facilitate an improved understanding and appreciation for the BWER, Ballona Creek, etc.

- **MM REC-9**: During final design the City will coordinate with CDFW to determine if CDFW's restoration project will have excess fill dirt available at the time that the Project is planned to be constructed. If CDFW has excess fill dirt available at the time of Project construction, the City shall conduct necessary geotechnical and hazardous materials testing and shall evaluate the soil as necessary to determine its suitability for use as fill soil for the Project. If the soil is determined to be suitable for use, the soil will be utilized to the extent feasible to help achieve part or all of the Project's required 96,524 cubic yards of imported soil. Given that it is not definitively known as to whether or not CDFW will have this soil available at the time of project construction, the Project's air quality, energy, and transportation analyses assume a worst-case scenario that soil will be imported from off-site.

2.1.5 Growth

Regulatory Setting

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with the National Environmental Policy Act (NEPA) of 1969, require evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect effects, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations (40 Code of Federal Regulations 1508.8) refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

CEQA also requires the analysis of a project's potential to induce growth. The State CEQA Guidelines (Section 15126.2[d]) require that environmental documents "…discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"

Environmental Setting

The project site is located in western Los Angeles County along Lincoln Boulevard, which is also designated as SR-1 within the project site. Most of the project site is within the City of Los Angeles; however, the northwestern portion of the project site is within unincorporated Los Angeles County.

The northern limit of the project site is approximately 100 feet south of the SR-1/Lincoln Boulevard/Fiji Way intersection. The southern limit of the project site is the SR-1/Lincoln Boulevard/Jefferson Boulevard intersection. Within the project site, SR-1/Lincoln Boulevard crosses over Ballona Creek, beneath the Culver Boulevard overcrossing, and through the BWER.

SR-1/Lincoln Boulevard is a major route traversing a northwest to southeast alignment through the Westside of Los Angeles County, connecting major destinations including the city of Santa Monica in the north, and Loyola Marymount University, Otis College of Art and Design, and Los Angeles International Airport in the south. The segment of SR-1/Lincoln Boulevard within the project site provides a critical and much traversed connection between and amongst the communities of Playa Del Rey, Playa Vista, Westchester, and El Segundo in the south and Marina Del Rey, Del Rey, Venice, Culver City, Mar Vista, and Santa Monica in the north.

A separate action that is proposed in the vicinity of the project site is the Ballona Wetlands Restoration Project, which is being led by CDFW in coordination with the Army Corps of Engineers.

SR-1/Lincoln Boulevard serves as a critical north-south connection on the Westside. There are few arterial connections that provide continuous access through the Westside, which results in SR-1/Lincoln Boulevard being oversaturated during peak commute periods. SR-1/Lincoln Boulevard narrows from three to two lanes in the southbound direction, approximately 1,050 feet north of the existing Lincoln Bridge over Ballona Creek, and from four to three lanes in the northbound direction, approximately 320 feet north of the intersection with Jefferson Blvd, to the intersection with Fiji Way. These lane reductions create a major bottleneck.

The average vehicle travel speeds along SR-1/Lincoln Boulevard are 15 miles per hour (mph) during peak periods when measured between Ozone Ave in the City of Santa Monica and Sepulveda Boulevard while the design speed is 50 mph. Travel times are greatly affected by bottlenecks resulting in slower speeds along much of SR-1/Lincoln Boulevard.

In addition, access for pedestrians along SR-1/Lincoln Boulevard is disjointed north and south of the Ballona Creek bridge which does not have sidewalks. SR-1/Lincoln Boulevard also lacks bicycle facilities across the bridge. Pedestrian and bicycle facilities are also deficient along Culver Boulevard.

Environmental Consequences

A project could be considered growth-inducing if it either increases the rate of planned growth or induces unplanned growth.

Consistent with the Caltrans Community Impact Assessment (CIA) Guidelines, four questions were used to assess the potential for the alternatives to result in growth inducing effects (Caltrans 2011):

- Question 1: Would the project influence the overall rate of growth?
- Question 2: Would the project influence the location of growth?
- Question 3: Would the project influence the amount of growth?
- Question 4: Would the project influence the type of growth?

Growth-inducing effects can occur if the project either facilitates planned growth or induces unplanned growth. Growth inducement can take several forms. A project can remove barriers, provide access, or eliminate other constraints which encourage growth that has been approved and anticipated through the General Plan process or under adopted growth projections. This planned growth would be reflected in land use plans that have been developed and approved with the underlying assumption that an adequate supporting transportation network would be constructed. Infrastructure improvements that support this planned growth can be described as accommodating or facilitating growth. In addition, a project can remove barriers, provide new access, or otherwise encourage growth which is not assumed as planned growth in the General Plans or adopted growth projections for the affected local jurisdictions. This could include areas which are currently designated for open space, agricultural, or other similar non-urban land uses which, because of the improved access provided by the project, would experience pressure to develop urban uses or develop at a higher level of intensity than originally anticipated. Within the context of these definitions and consistent with the Caltrans CIA guidelines, a conclusion must be made regarding the potential growth-inducing effects of each alternative.

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Since Alternative 1 would involve no construction, there would be no direct or indirect short-term effects related to growth inducement, such as short-term increases in construction jobs or new patrons visiting local establishments. Therefore, Alternative 1 would have no construction effects related to growth.

Operational Effects

Alternative 1 would not result in any new housing nor would Alternative 1 result in any changes to land use or to population density. Alternative 1 would also not extend or expand any utilities or transportation infrastructure that would potentially facilitate new growth. Therefore, operation of Alternative 1 would not result in any effects related to growth.

Cumulative Effects

Alternative 1 would not result in circulation improvements to SR-1/Lincoln Boulevard within the project site; therefore, Alternative 1 would not induce growth cumulatively. Alternative 1 would not be consistent with regional transportation plans that have been developed to provide adequate transportation choices based on anticipated future demographic trends and planned growth. This includes regional and local planning documents including but not limited to SCAG 2020 Regional Transportation Plan/Sustainable Communities Strategy, SCAG's 2023 Federal Transportation Improvement Program, the City's Mobility Plan 2035, and Metro's 2020 Long Range Transportation Plan. More information on this topic is provided in Chapters 2.1.2, Consistency with Plans and Programs, and 2.1.10, Transportation. Therefore, implementation of Alternative 1, as well as other cumulative projects, would result in adverse long term cumulative effects related to growth.

Alternative 2 – Base Alternative

Construction Effects

Alternative 2 would not directly induce growth during construction as no new housing, temporary land uses, or infrastructure would be provided that would potentially lead to temporary population growth.

Alternative 2 would result in the generation of temporary construction jobs. These jobs are anticipated to mostly be filled by the existing, mobile regional workforce similar to what occurs for other major transportation projects throughout the region[20]. Therefore, it is not anticipated that construction of Alternative 2 would lead to an influx of new workers moving to the area that do not already live within the region.

[20] As of December 2022, there were approximately 154,100 people in the Los Angeles-Long Beach-Glendale, CA Metro Division in the construction industry (US Bureau of Labor Statistics 2023a).

Alternative 2 would result in short-term indirect effects during construction including the incremental increase of activity at nearby commercial establishments as a result of construction workers patronizing local businesses.

Overall, construction of Alternative 2 is unlikely to induce unplanned growth.

<u>Operational Effects</u>

Alternative 2 does not include the development of any new housing nor does it include any new land uses that would increase employment in any sector once Alternative 2 is constructed. Therefore, direct growth inducement during operation of Alternative 2 is not anticipated.

The purpose of this Project is to modify an existing roadway and transform it into a multi-modal corridor along SR-1/Lincoln Boulevard between Fiji Way and Jefferson Boulevard. Alternative 2 would improve traffic operations and conditions for transit, bicyclists, and pedestrians traversing between and amongst Playa Vista, Marina Del Rey, Del Rey, and local destinations including the coast and beach, the Ballona Creek Bike Path, and the BWER.

Alternative 2 would not be built along a new alignment nor would Alternative 2 provide new or substantially expanded access. Similarly, Alternative 2 would not remove any major obstacles to development for parcels in the nearby area, such as by providing access to a parcel that currently does not have access to a road. Alternative 2 would improve mobility overall and would facilitate improved connectivity amongst existing communities along an existing roadway. As such, Alternative 2 would facilitate planned growth and would not induce any unplanned growth.

Areas that would be directly benefitted by Alternative 2 include the following: Playa Del Rey, Playa Vista, Westchester, and El Segundo in the south; and Marina Del Rey, Del Rey, Venice, Culver City, Mar Vista, and Santa Monica in the north. Although these areas are desirable to develop within, the cities/communities are generally built out, and new development is generally limited to the redevelopment of existing infill sites. Therefore, by providing transportation improvements along an existing roadway, Alternative 2 would facilitate planned growth within these areas.

Acquisitions that are proposed as part of Alternative 2 would not result in the displacement of any housing or businesses, nor would these acquisitions affect any planned developments on any of these parcels. Alternative 2's consistency with CDFW's Ballona Wetlands Restoration Project is addressed in Chapter 2.1.4, Parks and Recreation.

Alternative 2 would facilitate future transit improvements along SR-1/Lincoln Boulevard by LA Metro, which is anticipated to consist of either bus rapid transit or light rail. Alternative 2 would make this separate project easier to implement by acquiring and improving the curb-to-curb cross-section that is expected to be needed for either of those types of transit facilities. Since no transit improvements would be constructed as part of Alternative 2, no growth inducement would occur as a result. In the interim, the addition of a southbound travel lane along SR-1/Lincoln Boulevard under Alternative 2 would improve southbound transit service; however, this would not result in any anticipated induced growth.

Therefore, during operation of Alternative 2, no adverse effects related to growth inducement would occur.

<u>Cumulative Effects</u>

Implementation of Alternative 2 would alleviate existing transportation deficiencies within the project site while simultaneously improving SR-1/Lincoln Boulevard so that it can accommodate future planned transit improvements as well as future anticipated land uses in the vicinity and resultant traffic conditions. It is unlikely that any existing or planned cumulative projects along SR-1/Lincoln Boulevard and/or in the project site vicinity would occur.

When considered with other cumulative projects collectively, Alternative 2 would improve local pedestrian connections and the local and regional bicycling conditions. Alternative 2 would improve connections to the planned improvements within the BWER.

Alternative 2 would make it less complicated to implement planned future transit improvements within the project site. Transit improvements could lead to intensification of areas where transit access is improved. However, any such transit project would need to be evaluated pursuant to CEQA and/or NEPA in the future, which would evaluate those future project's potential for growth inducement when they occur.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

The construction of an additional retaining wall that would be constructed as part of Alternative 2A would not substantially change the number of construction workers needed to implement the Project, nor does it require a specialized skillset that would induce workers to move to the area from outside of the region. An additional retaining wall would take an incrementally longer period of time to construct (e.g., 1 month), during which period the construction workers would have longer time to patronize local establishments such as restaurants and stores. This would result in minor effects but would not substantially affect or incentivize growth. Overall, Alternative 2A and Alternative 2 would have similar construction effects related to growth.

Operational Effects

The permanent retaining wall that would be built under Alternative 2A would not be a habitable structure, nor would it otherwise induce growth. Therefore, Alternative 2A and Alternative 2 would have similar operational effects related to growth.

Cumulative Effects

Alternative 2A and Alternative 2 would have the same cumulative effects related to growth.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

The cantilevered sidewalks that would be constructed as part of Alternative 2B would not substantially change the number of construction workers needed to implement the Project, nor does it require a specialized skillset that would induce workers to move to the area from outside of the region. Therefore, Alternative 2B and Alternative 2 would have similar construction effects related to growth.

Operational Effects

The cantilevered sidewalks that would be built under Alternative 2B would not be habitable structures, nor would they otherwise induce growth. This alternative would reduce partial right-of-way acquisition; however, the acquisition areas are not utilized for housing nor could they reasonably be used for housing as they contain the Fiji Ditch drainage facility. Therefore, Alternative 2B and Alternative 2 would have similar operational effects related to growth.

Cumulative Effects

Alternative 2B and Alternative 2 would have the same cumulative effects related to growth.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

The wider bridge that would be constructed as part of Alternative 2C would not substantially change the number of construction workers needed to implement the Project, nor would it require a specialized skillset that would induce workers to move to the area from outside of the region. A wider bridge would take an incrementally longer period of time to construct (e.g., 2–3 months), during which period the construction workers would have longer time to patronize local establishments such as restaurants and stores. This would result in minor effects but would not substantially affect or incentivize growth. Overall, Alternative 2C and Alternative 2 would have similar construction effects related to growth.

Operational Effects

The wider bridge that would be built under Alternative 2C would not be a habitable structure, nor would it otherwise induce growth. The bridge would provide improved access between the local community and future improvements within the BWER. Although this would be a new amenity for residents and visitors, the wider bridge with bicycle and pedestrian facilities would not induce any new developments that were not already going to occur otherwise. This alternative would increase partial right-of-way acquisitions from the BWER; however, the acquisition areas are not utilized for housing nor could they reasonably be used for housing as they are located within the BWER. Therefore, Alternative 2C and Alternative 2 would have similar operational effects related to growth.

Cumulative Effects

Alternative 2C and Alternative 2 would have the same cumulative effects related to growth.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

The new bicycle and pedestrian ramp that would be constructed as part of Alternative 2D would not substantially change the number of construction workers needed to implement the Project, nor would it require a specialized skillset that would induce workers to move to the area from outside of the region. An additional ramp would take an incrementally longer period of time to construct (e.g., 1 month), during which period the construction workers would have longer time to patronize local establishments such as restaurants and stores. This would result in minor effects but would not substantially affect or incentivize growth. Overall, Alternative 2D and Alternative 2 would have similar construction effects related to growth.

Operational Effects

The new ramp that would be built under Alternative 2D would not be a habitable structure, nor would it otherwise induce growth. The ramp would provide improved access between Culver Boulevard, Lincoln Boulevard, the Ballona Creek Bike Path, and future improvements in the BWER. Although these additional new bicycle and pedestrian connections would be a new amenity for residents and visitors, they would not induce any new developments that were not already going to occur otherwise. This alternative would increase partial right-of-way acquisitions from the BWER; however, the acquisition areas are not utilized for housing, nor could they reasonably be used for housing, as they are located within the BWER. Therefore, Alternative 2D and Alternative 2 would have similar operational effects related to growth.

Cumulative Effects

Alternative 2D and Alternative 2 would have the same cumulative effects related to growth.

Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are applicable to this resource topic.

2.1.6 Community Character and Cohesion

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). The FHWA in its implementation of NEPA (23 USC 109[h]) directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under CEQA, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since the Project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the Project's effects.

Environmental Setting

The project site is located in western Los Angeles County along Lincoln Boulevard, which is also designated as SR-1 within the project site. SR-1/Lincoln Boulevard is a major route traversing a northwest to southeast alignment through the Westside of Los Angeles County, connecting major destinations including the city of Santa Monica in the north, and Loyola Marymount University, Otis College of Art and Design, and Los Angeles International Airport in the south. SR-1/Lincoln Boulevard within the project site provides a critical and much traversed connection between and amongst the communities of Playa Del Rey, Playa Vista, Westchester, and El Segundo in the south and Marina Del Rey, Del Rey, Venice, Culver City, Mar Vista, and Santa Monica in the north. The limits of local communities and specific plan boundaries near the project site are provided in Figure 2.1.2-1. Ballona Creek serves as a physical division amongst existing communities to the north and south of the project site. The one location to cross Ballona Creek within the vicinity is the SR-1/Lincoln Boulevard Bridge, which does not have any bicycle lanes or sidewalks.

Besides the existing SR-1/Lincoln Boulevard, the other primary land use within the project site north of Ballona Creek is the BWER. CDFW manages and maintains primary ownership of most of the 566-acre BWER, with a 24-acre portion owned by the California State Lands Commission (CDFW 2017a). The BWER occurs on the east and west sides of SR-1/Lincoln Boulevard north of Ballona Creek. Also north of Ballona Creek, Culver Boulevard bisects the project site via an overcrossing.

A detailed description of existing and future land uses within and adjacent to the project site is provided in Chapter 2.1.1, Existing and Future Land Use.

Community Cohesion Indicators and Community Profile:

Community cohesion is the degree to which residents have a sense of belonging to their neighborhoods, a level of commitment to the community, and/or a strong attachment to neighbors, groups, and institutions usually as a result of continued association over time. Cohesion refers to the degree of interaction among the individuals, groups, and institutions that make up a community. The indicators described below were used to determine the degree of community cohesion in Study Area census tracts and local jurisdictions. Census tracts within and near the project site are depicted in Figure 2.1.6-1.

- **Age**: Generally, the percentage of elderly residents (65 years or older) within a community can be a strong indicator of community cohesion; this is because elderly populations often have more time to volunteer within their communities and participate in local organizations. As shown in Table 2.1.6-1, the percentage the population that is 65 years and over in Census Tracts 2753.12 and 2766.01 is higher than the City and County averages. Census Tract 7029 which contains Marina Del Rey as well as Census Tract 2756.04 which contains a portion of Playa Vista have slightly lower proportions of their population that are over the age of 65. Based on this information, there do not appear to be any particularly high concentrations of elderly residents in the Census Tracts that are near the project site.

2020 U.S. Census Tracts within the Project Limits

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.13/30.74

EA 33880

Source: Aerial: Esri, Maxar 2022; Data: US Census 2020

Caltrans

Figure 2.1.6-1

Table 2.1.6-1 – Housing Profiles for the Regional and Local Study Areas

Area	Total Population	Population 65 Years and Over	Percentage (%) of Population 65 Years and Over
County of Los Angeles	10,040,682	1,370,141	14%
City of Los Angeles	3,973,278	510,787	13%
Local Study Area			
Census Tract 7029	10,065	986	10%
Census Tract 2753.12	2,061	366	18%
Census Tract 2756.05	2,685	358	13%
Census Tract 2756.04	9,559	813	9%
Census Tract 2766.01	4,030	808	20%

Source: 2020 ACS 5 Year Estimates Data Profiles

- **Race/Ethnicity**: A summary of demographic data for the census tracts that intersect the project site is provided in Table 2.1.6-2. In addition, a summary of demographic data for the City and County are provided in Table 2.1.6-3, below.

Table 2.1.6-2 – Demographic Data for Census Tracts in the Study Area

Race/Ethnicity	Census Tract 7029	Census Tract 7029	Census Tract 2753.12	Census Tract 2753.12	Census Tract 2756.05	Census Tract 2756.05	Census Tract 2756.04	Census Tract 2756.04	Census Tract 2766.01	Census Tract 2766.01
White	7,931	78.8%	1667	80.9%	1788	66.6%	6,338	66.3%	2,842	70.5%
Black or African American	886	8.8%	95	4.6%	290	10.8%	411	4.3%	202	5.0%
American Indian or Alaska Native	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Asian	705	7.0%	159	7.7%	459	17.1%	1,654	17.3%	443	11.0%
Native Hawaiian and Other Pacific Islander	50	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Some Other Race	201	2.0%	45	2.2%	75	2.8%	20	2.3%	137	3.4%
Two or More Races	292	2.9%	95	4.6%	72	2.7%	937	9.8%	407	10.1%
Hispanic or Latino	705	7.0%	109	5.3%	244	9.1%	1243	13.0%	556	13.8%
Total Population	**10,065**	**100%**	**2,061**	**100%**	**2,685**	**100%**	**9,559**	**100%**	**4,030**	**100%**
Total Minority	**2,134**	**21.2%**	**394**	**19.1%**	**897**	**33.4%**	**3,221**	**33.7%**	**1189**	**29.5%**

Table 2.1.6-3 – Demographic Data for the City and County of Los Angeles

Race/Ethnicity	**City of Los Angeles**	**City of Los Angeles**	**Los Angeles County**	**Los Angeles County**
White	1,942,933	48.9%	4,799,446	47.8%
Black or African American	349,648	8.8%	813,295	8.1%
American Indian or Alaska Native	278,129	0.7%	80,325	0.8%
Asian	468,847	11.8%	1,486,021	14.8%
Native Hawaiian and Other Pacific Islander	7,947	0.2%	20,081	0.2%
Some Other Race	901,934	22.7%	2,118,584	21.1%
Two or More Races	278,129	7.0%	732,970	7.3%
Hispanic or Latino	1,911,146	48.1%	4,849,649	48.3%
Total Population	**3,973,278**	**100%**	**10,040,682**	**100%**
Total Minority	**2,030,345**	**51.1%**	**5,241,236**	**52.2%**

- A summary of demographic data for the City and County are provided in Table 2.1.6-3. Primary differences between the demographics within the project site and for the overall City and County include the following:
    - The total minority populations for the City of Los Angeles and County of Los Angeles are 51.1% and 52.2% respectively. The census tracts that intersect the project site range from a maximum 33.7% total minority population for Census Tract 2756.04 down to a low of 19.1% total minority population for Census Tract 2753.12. The data show that the census tracts that intersect the project site contain substantially more white residents than the City and County do on average.
    - The census tracts that intersect the project site contain a lower proportion of "American Indian or Alaska Native" and "Native Hawaiian and Other Pacific Islander" populations than the City and County averages.
    - Two of the census tracts (Census Tracts 2756.04 and 2756.05) that intersect with the project site contain higher proportions of Asian population than the City and County averages. The areas covered by these tracts primarily consist of Playa Vista.
    - There are much lower proportions of the populations within the census tracts that contain the project site that identify themselves as "some other race".
    - Three of the five census tracts that intersect the project site have substantially lower proportions of their population that were of "two or more races".

  - The census tracts intersecting the project site contain substantially lower percentages of Hispanic and Latino populations than the City and County averages.

- **Owner Occupancy of Housing**: Because homeowners tend to be less mobile than renters, communities with a high number of owner-occupied residences are typically more cohesive than those with a high number of renter-occupied residences. This is because homeowners have a financial stake in their communities, and often take a greater interest in what is happening in their communities than renters do. This often leads to a stronger sense of community cohesion. As shown in Table 2.1.6-4, the census tracts that contain the project site have a wide range of conditions related to housing occupancy. When compared to the average owner occupancy rates for the City and County of 37% and 46% respectively, two census tracts have substantially lower rates of ownership (Census Tracts 7029 and 2756.05), two census tracts have similar rates of owner occupancy (Census Tracts 2756.04 and 2753.12), and one census tract has a much higher rate of owner occupancy (Census Tract 2766.01). The areas with substantially lower home ownership than the City and County averages include Census Tract 7029 which contains Marina Del Rey. This area has has several large apartment complexes and few for-sale residential land uses. The other area with low-owner occupancy is Census Tract 2756.05, which contains a portion of Playa Vista that is north of Jefferson Boulevard. This area of Playa Vista contains a large apartment complex just east of the project site and offices, which account for the low proportion of owner occupancy. The only for-sale housing in this Census Tract is to the east south of SR-90 and west of South Centinela Avenue. The one tract with substantially higher rate of owner occupancy is Census Tract 2766.01, which is west of SR-1/Lincoln Boulevard and north of West Manchester Avenue and which primarily contains single family residential land uses. The primary takeaway from these housing ownership data is that there is a high level of owner occupancy in the census tract that intersects the southwestern edge of the project site.

Table 2.1.6-4 – Housing Profiles for the Regional and Local Study Areas

Area	Total Housing Units	Percent (%) Vacant	Percent (%) Occupied	Percent (%) Owner Occupied	Percent (%) Tenant Occupied
County of Los Angeles	3,559,790	6.4%	93.6%	46%	54%
City of Los Angeles	1,513,791	7.4%	92.6%	37%	63%
Local Study Area					
Census Tract 7029	6,425	12.6%	87.4%	4.3%	95.7%
Census Tract 2753.12	1,096	4.4%	95.6%	48%	52%
Census Tract 2756.05	1,828	18.4%	81.6%	22.7%	77.3%
Census Tract 2756.04	4,733	8.5%	91.5%	41.7%	58.3%
Census Tract 2766.01	1,860	11.5%	88.5%	61.4%	38.6%

Source: 2020 ACS 5 Year Estimates Data Profiles

- **Household Size and Households With One Or More People Under 18 Years**: Generally, communities comprised of a high number of families with children are more cohesive than communities with a large percentage of single people. This appears to be a result of children establishing friendships within their communities. These social networks of children can often lead to the establishment of friendships and affiliations among parents in the communities. Housing profile information for the City, County, and census tracts containing the project site are provided in Table 2.1.6-5. The table shows that the average household size is substantially smaller for the census tracts that intersect the project site than for the overall City and County averages. Also, the data in table 2.1.6-5 indicate that the households near the project site generally have fewer young children than the City and County averages. The exception to this is Census Tract 2756.04, which has a rate of households with one or more people under 18 years old that is closer to the City and County averages.

Table 2.1.6-5 – Housing Profiles for the Regional and Local Study Areas

Area	Total Households	Average Household Size	Households with one or more people under 18 years
County of Los Angeles	3,332,504	2.96	32.4%
City of Los Angeles	1,402,522	2.77	28.6%
Local Study Area			
Census Tract 7029	5,617	1.79	11.6%
Census Tract 2753.12	1,048	1.97	15.4%
Census Tract 2756.05	1,492	1.80	15.3%
Census Tract 2756.04	4,329	2.21	28.8%
Census Tract 2766.01	1,646	2.45	20.0%

Source: 2020 ACS 5 Year Estimates Data Profiles

- **Housing Tenure**: The number of long-term residents within an area can often be a strong indicator of community cohesion; this is because a greater proportion of the population has had time to develop relationships within the community. Although there are many ways of defining a long-term resident, for this analysis households that moved into their current residences in 2009 or earlier are considered long-term residents. Given the data is from 2020, this would result in roughly a ten- or eleven-year housing tenure. As shown in Table 2.1.6-6, there are much fewer long-term residents within the census tracts intersecting the project site than the City and County averages. The exception is Census Tract 2766.01, which has an especially high concentration of for-sale residential units many of which that were constructed prior to 1960. As a result, this census tract has more long-term residents. As noted previously, Census Tract 2766.01 has higher rates of owner occupancy and residents over the age of 65 than the City and County averages. Overall, the low degree of longevity in the overall local community is likely caused by the high number of new units that were built near the project site in the past decade, the high proportion of rental units to for-sale units in the area, and due to the presence of new technology industries in the area (e.g., Silicon Beach) that did not exist a decade ago.

Table 2.1.6-6 – Housing Profiles for the Regional and Local Study Areas

Area	Total Households	Moved into unit in 2009 or earlier
County of Los Angeles	3,332,504	47.5%
City of Los Angeles	1,402,522	43.8%
Local Study Area	-	-
Census Tract 7029	5,617	11.2%
Census Tract 2753.12	1,048	33.4%
Census Tract 2756.05	1,492	24.8%
Census Tract 2756.04	4,329	11.9%
Census Tract 2766.01	1,646	56.2%

Source: 2020 ACS 5 Year Estimates Data Profiles

- **<u>Travel Time to Work</u>**: Often, commute time and community cohesion have an inverse relationship. This is because residents with shorter commute times often have more time to engage in their local communities. As shown in Table 2.1.6-7, a greater proportion of City and County residents have a 45 minute or longer commute to work than do the residents near the project site.

Table 2.1.6-7 – Housing Profiles for the Regional and Local Study Areas

Area	Workers 16 years and over who did not work from home	Travel Time to work (14 minutes or less)	Travel Time to work (15 to 29 Minutes)	Travel Time to work (30 to 44 minutes)	Travel Time to work (45 minutes or more)
County of Los Angeles	4,396,232	16.7%	32.3%	25.7%	25.4%
City of Los Angeles	1,777,460	15%	31.8%	28.3%	24.8%
Local Study Area	-	-	-	-	-
Census Tract 7029	5,131	12.2%	37%	35.4%	15.5%
Census Tract 2753.12	1,174	39.4%	16.4%	24.2%	19.9%
Census Tract 2756.05	1,096	26.5%	33.2%	28.8%	11.5%
Census Tract 2756.04	4,481	17.7%	31.2%	31.7%	19.4%
Census Tract 2766.01	1,856	12.3%	24.7%	38.7%	24.3%

Source: 2020 ACS 5 Year Estimates Data Profiles

<u>Observations Related to Community Character of Communities by Geographic Location</u>

Areas immediately east and west of the project site contain the BWER, which is currently not open for public use and therefore does not directly contribute to community cohesion. In current conditions, given its central location within the project site and lack of public accessibility, the BWER currently divides existing communities.

The areas immediately northwest of the project site generally front Marina Del Rey and have a marine-related character.

The areas northeast of the project site contain the neighborhood of Del Rey, which primarily consists of single-story, single-family residential properties that were developed in the 1940's and 1950's.

The areas southwest of the project site contain the BWER. Further to the southwest of the project site is the neighborhood of Playa Del Rey, which is a primarily residential neighborhood that fronts the beach and Pacific Ocean and therefore has a small beach town character.

To the south/southwest of the project site is an area that contains primarily residential uses including the One Westbluff community that was built sometime between 2005 and 2009. These residences are adjacent (to the north) of single-family residences that were built in the 1940's and 1950's.

The areas southeast of the project site consist of Playa Vista, a planned, mixed-use development that has been developed over the last two decades. Land uses include residential, commercial, and retail with schools and open spaces uses. The Playa Vista neighborhood contains a concentration of technology, media, and entertainment companies and is known as Silicon Beach.

<u>Community Cohesion Summary</u>

Based on the demographic data presented above, the following conclusions can be drawn related to the local community:

- The census tracts that intersect with the project site contain a high proportion of white residents and a lower proportion of minority residents. There are especially fewer hispanic and latino residents in the census tracts that intersect the project site than there are in the City and County on average.
- The census tracts that intersect the project site generally contain a typical proportion of individuals ages 65 and over when compared to the City and County averages.
- The census tracts that intersect the project site contain households with lower average household sizes, and fewer households with children under the age of 18 than the City and County averages.
- The census tracts that intersect the project site contain a varying degree of home ownership and longevity. The communities of Playa Vista and Marina Del Rey in the

project site exhibit higher rates of renter-occupancy and fewer long-term residents than the City and County averages.

- A lower proportion of the residents within the Census Tracts containing the project site have commutes that are 45 minutes or greater than is the norm for the overall City and County populations.
- Census Tract 2766.01, which is generally located southwest of the project site, shows the greatest indications of community character and cohesion, which is exhibited through data that show that this census tract contains more long-term residents, more owner-occupants, and more residents that are 65 years of age or older when compared to the averages at the City and County levels.

One unique characteristic of the community surrounding the project site is that there are many local, social organizations that have been established with purposes related to local geographic features, including Ballona Creek and the Ballona Wetlands. These groups include but are not limited to the Friends of Ballona Wetlands, Ballona Wetlands Trust, The Bay Institute, Ballona Creek Renaissance, and Ballona Institute.

During site visits by members of the Project Development Team, many members of the public were seen using the Ballona Creek Bike Path as individuals and also as organized groups. Small jogging groups and various sized groups of bicyclists were also observed using the trail throughout the day. Therefore, the Ballona Creek Bike Path serves as a location for individuals to meet and/or run into each other, and for community to develop. Also, Ballona Creek is used by some water sports enthusiasts, which is another aspect of the local community character.

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Alternative 1 would result in no construction; therefore, this alternative would result in no potential effects related to community character and cohesion.

<u>Operational Effects</u>

Alternative 1 would not provide multimodal improvements along SR-1/Lincoln Boulevard; therefore, there would be no operational effects related to community character and cohesion.

Cumulative Effects

Since Alternative 1 would involve no construction or operational effects, Alternative 1 has no potential to contribute to cumulative effects related to existing and future land use.

Alternative 2 – Base Alternative

Construction Effects

Alternative 2 would result in temporary effects to community character and cohesion including related to: transportation, lighting, noise, air quality, and views of temporary construction easements (TCEs).

Alternative 2 would require temporary detours and other alterations to the existing transportation system, which would temporarily decrease public access as discussed in Chapter 2.1.10, Transportation of this Draft EIR/EA. Therefore, as detailed in **MM TRANS-1**, a Transportation Management Plan (TMP) would be implemented during construction to avoid and minimize effects to local vehicular traffic, pedestrians, and bicyclists. Also, as specified in **MM REC-2,** Alternative 2 would provide a temporary detour of the Ballona Creek Bike Path consisting of a signalized crossing of SR-1/Lincoln Boulevard that would be located at Culver Boulevard as shown in Figure 2.1.4-7. Public notification signage will be installed at least thirty days prior to implementation of the detour. This detour will be coordinated with the TMP required as **MM TRANS-1**. Alternatively, if desired, the City may provide a temporary detour that crosses beneath SR-1/Lincoln Boulevard at a slightly different alignment. Also, as specified in **MM REC-3**, prior to the completion of construction, the Ballona Creek Bike Path alignment beneath SR-1/Lincoln Boulevard will be built and opened. Also, Americans with Disabilities Act-compliant access ramps will be constructed from the Bike Path that connect to the east and west sides of SR-1/Lincoln Boulevard immediately north of Ballona Creek, similar to pre-Project conditions. After construction of Alternative 2 is completed, the temporary detour would be removed and the alignment beneath the new SR-1/Lincoln Boulevard bridge over Ballona Creek would be opened for use. With implementation of these measures, no substantial transportation-related community character or cohesion effects would result from Alternative 2.

Alternative 2 has the potential to result in temporary lighting effects through the use of construction night lighting. **MM VIS-1** would be implemented as part of Alternative 2 which requires that construction lighting be limited to only what is required for safety and nighttime construction activities and that night lighting be contained and directed toward the construction areas. Also, as required by **MM VIS-2**, to minimize temporary effects to views, the construction staging area south of Ballona Creek and west of SR-1/Lincoln Boulevard shall be enclosed with an 8-foot-tall or taller chain-link fence with privacy windscreen or similar materials.

Alternative 2 would require TCEs as discussed in more detail in Chapter 2.1.7, Relocation and Real Property Acquisition. These TCEs would not result in the closure of any businesses or other community amenities. Access to businesses and residences would be maintained during construction. Furthermore, as specified in **MM VIS-3, MM REC-1, and MM-REC-3**, temporary impact areas would be re-landscaped with native, non-invasive plant species in consultation with affected property owners to minimize effects to these properties as well as to enhance views after Alternative 2 is built.

Operational Effects

Alternative 2 would be consistent with applicable plans and programs, as described in Chapter 2.1.2, Consistency with Plans and Programs, of this Draft EIR/EA. The purpose of the Project is to create a new multi-modal corridor along SR-1/Lincoln Boulevard between Fiji way and Jefferson Boulevard to improve traffic operations and to serve transit, bicyclists, and pedestrians while minimizing effects to the BWER, Ballona Creek, and other environmental resources. Alternative 2 would provide pedestrian and bicycle facilities, improving community connectivity and access, which would increase community cohesion and connections among communities. Therefore, it is anticipated that once constructed, Alternative 2 would result in beneficial effects related to community character and cohesion.

Cumulative Effects

Cumulative projects identified in Table 2-1 would also involve similar temporary effects as would Alternative 2 related to traffic and access and temporary visual effects. However, the cumulative projects would be required to implement common construction best management practices such as the development and implementation of TMPs during construction and re-landscaping temporarily impacted areas. With implementation of Alternative 2 and CDFW's Ballona Wetlands Restoration Plan, an adjacent cumulative project, the overall cumulative effect of Alternative 2 and cumulative projects related to community character and cohesion would be beneficial. Alternative 2 would increase multimodal access along SR-1/Lincoln Boulevard within the project site and amongst existing communities, the Ballona Creek Bike Path, the BWER, and the coast.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. This area west of SR-1/Lincoln Boulevard is part of the BWER but is undeveloped in existing conditions and is not accessible to the general public. Therefore, reducing temporary work activities would not affect any public trails, public access, or recreational activities within these areas. Alternative 2A would not re-grade areas beyond the edge of the sidewalk at a 2:1 slope west of SR-1/Lincoln Boulevard at this location. Alternative 2A would result in less ground disturbance than Alternative 2, which would lead to fewer effects related to fugitive dust/air quality effects and stormwater and water quality effects. When compared to Alternative 2, construction of Alternative 2A would decrease effects to community character by reducing the overall construction footprint and construction dust and stormwater effects. Otherwise, the construction effects of Alternative 2A related to the community character and cohesion would be the same as for Alternative 2.

Operational Effects

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER, an open space land use, and the west side of SR-1/Lincoln Boulevard north of Culver Boulevard. The retaining wall would provide benefits to future users of areas in the BWER west of this retaining wall, which would have greater physical separation from the roadway. This would lead to increased perceived safety for users in this area, and potentially less roadway noise for these areas. The retaining wall could be the target of graffiti once it is built, which would be in conflict provisions contained in Section 30251 of the Coastal Act pertaining to Scenic and visual qualities. However, **MM VIS-5** would be implemented as part of Alternative 2A to minimize the effects of graffiti, which requires that anti-graffiti treatments be specified for all bridges, abutments, retaining walls, and the one noise barrier. When compared to Alternative 2, operation of Alternative 2A would have some benefits and some increased effects, which are described above. Otherwise, Alternative 2A would result in the same effects related to community character and cohesion as Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to community character and cohesion would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard which contains another portion of Fiji Ditch. Fiji Ditch is a drainage ditch that is vegetated with a mix of native plants, including wetland vegetation.

The reduced ground disturbance that would result from Alternative 2B would reduce effects identified for Alternative 2 related to fugitive dust/air quality effects and stormwater/water quality effects. When compared to Alternative 2, construction of Alternative 2B would decrease effects to community character by reducing the overall construction footprint and construction dust and stormwater effects. Otherwise, the construction effects of Alternative 2Brelated to the community character and cohesion would be the same as for Alternative 2.

Operational Effects

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is Los Angeles County Flood Control District (LACFCD)-owned land on the east side of SR-1/Lincoln Boulevard which contains a portion of Fiji Ditch. The cantilevered sidewalks would result in no new community character or cohesion effects when compared to Alternative 2 as these sidewalks would be at the same locations as the standard sidewalks that would be built under Alternative 2 and would provide the same connectivity as the sidewalks that would be constructed under Alternative 2. Otherwise, the operational effects of Alternative 2B related to the coastal zone would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to community character and cohesion would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and designated as open space land uses. The increased ground disturbance that would result from Alternative 2C would incrementally increase effects identified for Alternative 2 related to fugitive dust/air quality effects that could temporarily degrade community character. Otherwise, the construction effects of Alternative 2C related to community character and cohesion would be the same as for Alternative 2.

Operational Effects

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER and designated as open space land uses. These areas are not currently utilized for any public recreational purposes as they are not accessible to the public. The wider bridge under Alternative 2C would provide enhanced community connectivity across SR-1/Lincoln Boulevard, enhancing community character over existing conditions and relative to conditions that would result from Alternative 2. Otherwise, operation of Alternative 2C would have the same effects related to community character and cohesion as Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to community character and cohesion would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER and an open space land use. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900 so no additional temporary construction easements would be needed to implement Alternative 2D.

When compared to Alternative 2, construction of Alternative 2D would result in a minor amount of additional construction activities and resultant effects such as dust and views impaired by additional temporary construction activities that would not occur under Alternative 2. Otherwise, the construction effects of Alternative 2D related to the coastal zone would be the same as for Alternative 2.

Operational Effects

If Alternative 2D were to be implemented, approximately 840 square feet of additional permanent right-of-way would be required from APN 4211-015-900, which is a part of the BWER and an open space land use. This area would be acquired under Alternative 2D to construct a new bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900 that would not be constructed under Alternative 2.

Alternative 2D would install low-level pedestrian lighting that is not included in Alternative 2 that would increase the level of lighting locally when compared to Alternative 2 and when compared to existing conditions; however, the new lighting would be shielded and down-cast to minimize effects. Therefore, this new lighting would not substantially change the community character or amount of cohesion of the area.

When compared to Alternative 2, Alternative 2D would improve community character by enhancing connectivity amongst existing communities and nearby destinations. Otherwise, the operational effects of Alternative 2D related to the coastal zone would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to community character and cohesion would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are applicable to this resource topic.

2.1.7 Relocation and Real Property Acquisition

Regulatory Setting

The Department's Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), and Title 49 Code of Federal Regulations Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. None of the Project's alternatives would require the relocation of any residents or businesses.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Please see Appendix B for a copy of the Department's Title VI Policy Statement.

Environmental Setting

Existing and future land uses near the project site are described in Chapter 2.1.1, Existing and Future Land Use.

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Since Alternative 1 involves no construction, there would be no temporary construction easements (TCEs) required under this alternative.

<u>Operational Effects</u>

Since Alternative 1 involves no improvements, there would be no partial or full right-of-way acquisitions required under this alternative. Similarly, Alternative 1 would not require the displacement of any residents or businesses.

<u>Cumulative Effects</u>

Since Alternative 1 would involve no temporary construction easements or right-of-way acquisition, Alternative 1 has no potential to contribute to cumulative effects related to relocation and real property acquisition. Since Alternative 1 would not acquire any right-of-way along SR-1/Lincoln Boulevard, future projects along SR-1/Lincoln Boulevard may need to acquire right-of-way at the time that they are implemented.

Alternative 2 – Base Alternative

Construction Effects

Alternative 2 would require TCEs within 17 parcels as detailed in Table 2.1.7-1. The TCEs required for Alternative 2 are depicted in Figure 1-4.

Table 2.1.7-1 – Estimated ROW and TCE Acquisition by Alternative

General Plan Land Use Designation	Property Owner	APN	Project Right-of-Way Needs - Partial Right-of-Way Area	Project Right-of-Way Needs - TCE Area
Regional Mixed Commercial	Essex Fountain Park Arts LP	4211-022-001	0.4 Acre	0.3 Acre
Regional Mixed Commercial	Orion West Group, LLC	4211-022-004	0.2 Acre	0.08 Acre
Regional Mixed Commercial	5510 5570 Lincoln Blvd., LLC	4211-022-013	0.05 Acre	.06 Acre
Regional Mixed Commercial		4211-022-014	10 SF	.02 Acre
Medium and Neighborhood Office Commercial	State of California	4211-007-911*	0.6 Acre	0.6 Acre
Medium and Neighborhood Office Commercial	Los Angeles County Flood Control District	4211-007-900	191 SF	763 SF
Medium and Neighborhood Office Commercial	State of California	4211-016-900*	0.06 Acre	1.0 Acre
Medium and Neighborhood Office Commercial	So. Cal. Edison CO SBE PAR 1	4224-009-801	107 SF	403 SF
Commercial	Los Angeles County	4224-009-905	0.03 Acre	0.03 Acre
	State of California	4211-007-915*	None	0.2 Acre
Medium and Neighborhood Office Commercial/Medium	State of California	4211-007-920*	172 SF	0.2 Acre
Medium	Los Angeles County	4211-007-910	0.2 Acre	0.2 Acre
Open Space	State of California	4211-007-919*	0.5 Acre	0.4 Acre
Open Space	State of California	4211-015-904*	None	0.2 Acre
Agricultural	State of California	4211-015-903*	None	0.3 Acre
High Medium	State of California	4211-015-902*	None	1.3 Acre

General Plan Land Use Designation	Property Owner	APN	Project Right-of-Way Needs - Partial Right-of-Way Area	Project Right-of-Way Needs - TCE Area
Open Space-Conservation	State of California	4211-015-900*	None	0.4 Acre

APN: Assessor Parcel Number; TCE: temporary construction easements; SF: square feet.
Source: Psomas 2023a.
Notes:
*These parcels are part of the Ballona Wetlands Ecological Reserve (BWER).

During final design, TCEs would be coordinated with each property owner and fair compensation would be provided in accordance with **MM ROW-1**.

As specified in **MM VIS-3, MM REC-1, and MM-REC-4**, TCEs would be restored with native, non-invasive plant species in consultation with affected property owners to minimize impacts to these properties as well as to enhance views in the post-project condition.

Operational Effects

Alternative 2 would require partial right-of-way acquisitions from 12 parcels as detailed above in Table 2.1.7-1. The partial right-of-way acquisition required for Alternative 2 are depicted in Figure 1-4.

However, Alternative 2 would not require any full parcel acquisitions and would not result in the displacement of any residents or businesses. As specified in **MM ROW-1**, Alternative 2 would include fair compensation to eligible persons and businesses in accordance with the federal Uniform Relocation Assistance and Property Acquisition Act of 1970, as amended (42 United States Code [USC] Sections 4601-4655) and the California Relocation Act (California Government Code, Section 7260 et. seq.) as applicable.

Alternative 2 would result in the removal of approximately 11 parking spaces from APN 4211-022-004, which is used as the Silicon Beach Medical Center. This would leave approximately ten parking spaces. During field work conducted by Psomas in 2021, 2022, and 2023, staff observed that there were typically fewer than five cars utilizing this parking area so the parking stalls that would be removed appear to be in excess of what is required by the medical center’s current operations. Therefore, the medical center would not be displaced or substantially altered by the implementation of Alternative 2.

Alternative 2 would require the removal and replacement of signage closer to the building for the Fountain Park Apartments within APN 4211-022-001, which would be coordinated during the right-of-way acquisition process.

Alternative 2 would require 0.03 acres of partial right-of-way acquisition from the Fiji Gateway Park. These areas that would be acquired would be utilized by Alternative 2 to widen the existing narrow sidewalk along the edge of the park to eight-foot-wide sidewalks and to provide a sidewalk connection where there is currently a gap. Areas that would be acquired consist of landscaping. This acquisition would improve access to the Fiji Gateway Park and would not substantially alter the existing uses of this park.

Alternative 2 would require acquisition from the BWER. As described in Chapter 2.1.4, Parks and Recreational Facilities and in **MM REC-5**, rather than acquiring land within the BWER through eminent domain, Alternative 2 includes a proposed land exchange between the City and CDFW as a way of mitigating for impacts to the BWER. Alternative 2 would compensate for acquisition of 1.17-acres from the BWER through the transfer of 1.17-acres of City-owned land that is adjacent to the BWER. A conceptual location has been coordinated with CDFW during several meetings in 2022 and 2023 is depicted in Figure 2.1.4-5. Alternatively, if CDFW approvals are not able to be obtained for a land exchange[21], Alternative 2 would instead compensate for partial right-of-way acquisition from the BWER through the right-of-way appraisal and acquisition process, as described in **MM ROW-1**. This would result in a reduction in size of the BWER by 1.17 acres. However, CDFW would be compensated for the loss and could utilize such funds for their own acquisition and/or enhancement activities within the remaining 575.83 acres[22] of the BWER that would remain with implementation of Alternative 2.

As noted in Chapter 1.0, Proposed Project, Alternative 2 requires the approval of three design deviations from the requirements of the Highway Design Manual. Also, Alternative 2 includes the acquisition of right-of-way only to the back of the curb on either side of the 130-foot right-of-way, rather than acquiring all the way to the toe of the slope beyond the right-of-way that is needed, as is often done for Caltrans projects. These design approaches have been incorporated as part of Alternative 2 specifically to minimize impacts to wetlands and to the BWER.

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[21] A land exchange would require several approvals by CDFW such as approval of a transfer of jurisdiction by the Wildlife Conservation Board and/or Fish and Game Commission.

[22] The existing BWER is approximately 577 acres. After partial right-of-way acquisition from the BWER of 1.17 acres which is needed for Alternative 2, 575.83 acres would remain in the BWER.

<u>Cumulative Effects</u>

Alternative 2 would help to avoid cumulative right-of-way acquisition effects to the BWER by accommodating for future transit improvements that are planned along SR-1/Lincoln Boulevard. The cumulative projects identified in Table 2-1 would have no additional major right-of-way acquisition-related effects to any of the parcels that would be effected by Alternative 2.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. Otherwise, the construction effects of Alternative 2A related to relocation and real property acquisition would be the same as for Alternative 2.

<u>Operational Effects</u>

Alternative 2A would require the same amount of permanent right-of-way acquisition as would be required under Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2A, cumulative effects related to relocation and real property acquisition would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

<u>Construction Effects</u>

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is Los Angeles County Flood Control District (LACFCD)-owned land on the east side of SR-1/Lincoln Boulevard. Otherwise, the construction effects of Alternative 2B related to relocation and real property acquisition would be the same as for Alternative 2.

Operational Effects

Alternative 2B would avoid approximately 107 square feet of right-of-way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard. Otherwise, the operational effects of Alternative 2B related to relocation and real property acquisition would be the same as Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to relocation and real property acquisition would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and designated as open space land uses. Otherwise, the construction effects of Alternative 2C related to relocations and real property acquisition would be the same as for Alternative 2.

Operational Effects

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER. Otherwise, operation of Alternative 2C would have the same effects related to relocation and real property acquisition as Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to relocation and real property acquisition would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

No additional temporary construction easements would be required under Alternative 2D. Alternative 2D would result in additional work activities that would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN

4211-015-900. Otherwise, the construction effects of Alternative 2D related to the coastal zone would be the same as for Alternative 2.

Operational Effects

Alternative 2D would require approximately 840 square feet of additional permanent right-of-way from APN 4211-015-900, which is a part of the BWER. Otherwise, the operational effects of Alternative 2D related to relocation and real property acquisition would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to relocation and real property acquisition would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM ROW-1**: The Project would provide compensation to eligible persons and businesses in accordance with the federal Uniform Relocation Assistance and Property Acquisition Act of 1970, as amended (42 USC Sections 4601-4655) and the California Relocation Act (California Government Code, Section 7260 et. seq.) as applicable.

2.1.8 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2021, this was $26,500 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964, and related statutes, have also been included in this Project. The Department’s commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, signed by the Director, which can be found in Appendix B of this document.

Environmental Setting

According to the Council on Environmental Equality (CEQ) Guidance (1997), minority individuals are defined as members of the following groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. A minority population, for the purposes of this environmental justice analysis, is identified when the minority population of the potentially affected area is greater than 50% and/or meaningfully greater than the percentage of the minority population in the general population or other appropriate unit of geographical analysis (CEQ 1997).

To identify potential impacts to minority and/or low-income populations, 2020 U.S. Census data were obtained for Census Tracts containing the project site, including Census Tracts 7029, 2753.12, 2756.05, 2756.04. and 2766.01, the City of Los Angeles, and Los Angeles County. Census tracts that intersect the project site are shown in Figure 2.1.6-1 which is provided in Chapter 2.1.6, Community Character and Cohesion. Demographic data for these census tracts relative to the City and County are summarized in Tables 2.1.6-2 and 2.1.6-3.

Based on the information presented below, there are no concentrations of minority or low-income populations within the census tracts that intersect the project site.

Minority Populations

The total minority populations for the City of Los Angeles and County of Los Angeles are 51.1% and 52.2% respectively. The census tracts that intersect the project site range from a maximum 33.7% total minority population for Census Tract 2756.04 down to a low of 19.1% total minority population for Census Tract 2753.12. The data show that the census tracts that intersect the project site contain substantially more white residents than the City and County do on average. The census tracts intersecting the project site contain substantially lower percentages of Hispanic and Latino populations than the City and County averages.

Low-Income Populations

According to the 2020 ACS 5 Year Estimates, shown below in Table 2.1.8-1, the percentage of the population that is below the poverty level is 16.9% for the City of Los Angeles and 14.2% for Los Angeles County. The median household income is $65,290 for the City of Los Angeles and $71,358 in Los Angeles County.

Table 2.1.8-1 – Income and Poverty Rates for the City and County of Los Angeles

-	City of Los Angeles	City of Los Angeles	Los Angeles County	Los Angeles County
Population Below Poverty Level*	658,750	16.9%	1,401,656	14.2%
Median Household Income	$65,290	$65,290	$71,358	$71,358

%: percent.
Source: 2020 ACS 5 Year Estimates Data Profiles
*Percent of population below the poverty level is = population below poverty level/population for whom poverty status is determined.

In addition, as shown in Table 2.1.8-2, below, the census tracts that intersect the project site have between 3.7% (Census Tract 2753.12) and 10.9% (Census Tract 2756.05) of their populations living below poverty levels, depending on the tract. These tracts have a low median household income of $95,192 (Census Tract 2756.05) and a high median household income of $173,569 (Census Tract 2756.04).

Table 2.1.8-2 – Income and Poverty Rates for Census Tracts in the Study Area

-	Census Tract 7029	Census Tract 7029	Census Tract 2753.12	Census Tract 2753.12	Census Tract 2756.05	Census Tract 2756.05	Census Tract 2756.04	Census Tract 2756.04	Census Tract 2766.01	Census Tract 2766.01
Population Below Poverty Level*	1,056	10.5%	76	3.7%	293	10.9%	359	3.8%	201	5.0%
Median Household Income	$120,437		$100,667		$95,192		$173,569		$131,905	

%: percent.
Source: 2020 ACS 5 Year Estimates Data Profiles
*Percent of population below the poverty level is = population below poverty level/population for whom poverty status is determined.

All of the census tracts that intersect the project site have lower rates of poverty and higher median household incomes than the City and County.

Native American Tribes

As described in Chapter 2.1.12, Cultural Resources, the project site is located in a region traditionally occupied by the Native American group known as the Gabrielino-Tongva. Native Americans living in the region, whether or not they are part of an identified minority or low-income community, represent a community that may be at risk for environmental justice impacts related to physical impacts on cultural resources.

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Alternative 1 would involve no construction activities; therefore, Alternative 1 has no potential to result in disproportionately high and adverse environmental effects on a minority or low-income population.

Operational Effects

Alternative 1 would involve no improvements; therefore, Alternative 1 has no potential to result in disproportionately high and adverse environmental effects on a minority or low-income population.

Cumulative Effects

Alternative 1 would involve no construction effects nor would it construct any improvements; therefore, Alternative 1 has no potential to result in disproportionately high and adverse environmental effects on a minority or low-income population when combined with cumulative projects.

Alternative 2 – Base Alternative

Construction Effects

Although environmental justice populations do not live in high concentrations within the census tracts that intersect the project site, there are many individuals that utilize the Ballona Creek Bike Path for transportation and recreation. It is likely that some of these individuals are either low-income and/or minority populations. As described in the Parks and Recreation analysis provided in Chapter 2.1.4, Parks and Recreation, of this Draft EIR/EA, the Ballona Creek Bike Path would be detoured temporarily during construction, and would subsequently be realigned, reconstructed, and reopened. Therefore, users of the Ballona Creek Bike Path including any that are a part of a low-income and/or minority population would not be adversely affected.

Given that there are no concentrations of minority or low-income individuals near the project site, construction effects of the Project would not result in any disproportionately high and adverse environmental effects to any minority or low-income populations.

Operational Effects

Operation of Alternative 2 would result in ongoing operational effects, such as effects related to air quality and noise, that would result in environmental affects to nearby areas. Using US Census data, these census tracts within and adjacent to the project site have been determined to not contain high concentrations of minority or low-income populations.

Instead, minority and low-income individuals that commute through the project site by car, transit, or bicycle would be able to utilize the new SR-1/Lincoln Boulevard improvements.

Impacts related to Native American Tribes and potential tribal cultural resources that could be encountered during construction would be mitigated as described in Chapter 2.1.12, Cultural Resources, of this Draft EIR/EA.

Based on the above discussion and analysis, Alternative 2 would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of EO 12898.

Cumulative Effects

Alternative 2 would not result in any substantial construction or operational effects related to environmental justice. Therefore, Alternative 2 would not contribute to any cumulative effects related to this topic. When implemented with other nearby projects including the future planned transit improvements along SR-1/Lincoln Boulevard and the Ballona Wetlands Restoration Project, these projects collectively have the potential to improve circulation and recreational conditions for environmental justice populations.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. No minority or low-income individuals would be affected by these additional temporary construction easements. Otherwise, the construction effects of Alternative 2A related to environmental justice would be the same as for Alternative 2.

Operational Effects

Alternative 2A would require the same amount of permanent right-of-way acquisition as would be required under Alternative 2. The proposed retaining wall under Alternative 2A would not otherwise change any operational effects related to environmental justice when compared to Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to environmental justice would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is Los Angeles County Flood Control District (LACFCD)-owned land on the east side of SR-1/Lincoln Boulevard. No minority or low-income individuals would be affected by these reductions in temporary construction easements as these are open space parcels. Otherwise, the construction effects of Alternative 2B related to environmental justice would be the same as for Alternative 2.

Operational Effects

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard. No minority or low-income individuals would be affected by these reductions in partial right-of-way acquisition as these are open space parcels. The cantilevered sidewalks would provide similar pedestrian connectivity as to what is proposed by Alternative 2. Otherwise, the operational effects of Alternative 2B related to environmental justice would be the same as Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to environmental justice would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and designated as open space land uses. No minority or low-income individuals would be affected by these increases in temporary construction easements as these are open space parcels. Otherwise, the construction effects of Alternative 2C related to environmental justice would be the same as Alternative 2.

Operational Effects

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER. No minority or low-income individuals would be affected by these increases in partial right-of-way acquisition as these are open space parcels. The wider Culver Boulevard bridge under Alternative 2C would enhance pedestrian and bicyclist connectivity, regardless or race or income. Otherwise, the operational effects of Alternative 2C related to environmental justice would be the same as Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to environmental justice would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

No additional temporary construction easements would be required under Alternative 2D. Alternative 2D would result in additional work activities that would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900. No minority or low-income individuals would be affected by these increases in temporary construction easements as these are open space parcels. Otherwise, the construction effects of Alternative 2D related to the coastal zone would be the same as for Alternative 2.

Operational Effects

Alternative 2D would require approximately 840 square feet of additional permanent right-of-way from APN 4211-015-900, which is a part of the BWER. No minority or low-income individuals would be affected by these increases in partial right-of-way acquisition as these are open space parcels. The wider Culver Boulevard bridge under Alternative 2D would enhance pedestrian and bicyclist connectivity, regardless or race or income. Otherwise, the operational effects of Alternative 2D related to relocation and real property acquisition would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to environmental justice would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are applicable to this resource topic.

2.1.9 Utilities/Service Systems

Regulatory Setting

State

California Water Plan

The California Water Plan is prepared by the California Department of Water Resources (DWR), most recently updated in 2018 (DWR 2018a). The plan provides a framework for water managers, legislators, tribes, agencies, businesses, academia, stakeholders, and the public to consider options and make decisions regarding California's water future. The California Water Plan, which is updated every 5 years, presents basic data and information on California's water resources, including water supply evaluations and assessments of agricultural, urban, and environmental water uses, to quantify the gap between water supplies and uses. The California Water Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs. The California Water Plan provides resource management strategies and recommendations to strengthen integrated regional water management. The resource management strategies help regions meet future demands and sustain the environment, resources, and economy; involve communities in decision-making; and meet various goals. A resource management strategy is a project, program, or policy that helps local agencies and governments manage their water and related resources. These strategies can reduce water demand, improve operational efficiency, increase water supply, improve water quality, practice resource stewardship, and improve flood management. Additionally, the California Water Plan includes a finance plan that identifies critical priorities for State investment in integrated water management activities.

California Water Code

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the State Water Resources Control Board (SWRCB) consider and act on all applications for permits to appropriate waters. Division 6 of the California Water Code controls conservation, development, and utilization of the State water resources, whereas Division 7 addresses water quality protection and management.

Urban Water Management Planning Act

The California Urban Water Management Planning Act (California Water Code, Sections 10610–10656) requires urban water suppliers that provide over 3,000 acre-feet of water annually or serve more than 3,000 or more connections to analyze the reliability of their water sources over a 20-year planning horizon. The Act requires urban water suppliers to prepare and update Urban Water Management Plans (UWMPs) that analyze the availability of water supplies to meet demands during normal, single-dry, and multiple-dry years, to encourage water conservation programs and create long-term planning obligations.

Senate Bill 606 and Assembly Bill 1668

In 2018, two laws were passed that built on California's ongoing efforts to make water conservation a way of life. They emphasized efficiency and stretching water supplies in cities and farms. The laws were jointly designed to overhaul California's approach to conserving water. The measures impose new and expanded requirements on State water agencies and local water supplies, and provide for greater State oversight of local water suppliers' water use, even in non-drought years. Assembly Bill (AB) 1668 and Senate Bill 606 require the SWRCB, in coordination with the DWR, to establish long-term urban water use efficiency standards including components for indoor residential use, outdoor residential use, water losses, and other uses.

Regarding indoor residential use, the new laws set a standard of 55 gallons per-person, per-day through January 1, 2025. After that date, the amount will be incrementally reduced over time. In addition, the bills will require local water suppliers to calculate and comply with their water use objectives and report those objectives and actual use to DWR. New five-year drought risk assessments and water shortage contingency plans must also be incorporated into Urban Water Management Plans.

California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939)

The California Integrated Waste Management Act of 1989, which is commonly known as AB 939, was the first recycling legislation in the country to mandate recycling diversion goals. Codified in the Public Resources Code (Public Resources Code §40050 et seq.), AB 939 emphasizes a reduction of waste disposed of in California landfills by requiring cities and counties to reduce the production of solid waste through recycling and reuse of solid waste. To achieve a reduction of waste in California landfills, AB 939 (as amended) requires local governments to divert 50% of all solid waste.

California Building Code

The 2022 California Green Building Standards Code (24 California Code of Regulations, Part 11), also known as the CALGreen code, is promulgated under the California Code of Regulations, Title 24 (Parts 1 through 12) and is administered by the California Building Standards Commission (CBSC 2022a). The national model code standards adopted into Title 24 apply to all occupancies in California except for modifications adopted by State agencies and local governing bodies. The California Building Code establishes general standards for the design and construction of buildings, including provisions related to energy and water efficiency and conservation; material conservation and resource efficiency; and environmental quality. Mandatory measures include storm water pollution prevention, water conservation, and recycling and/or salvage of at least 50 percent of nonhazardous construction and demolition wastes.

Local

City of Los Angeles Sanitary Sewer System Management Plan (SSMP)

The State of California requires publicly-owned sanitary sewer systems to develop and implement a Sewer System Management Plan (SSMP), including measures to control and mitigate sewer spills. The City maintains and periodically audits and updates its SSMP pursuant to the State requirements (City of Los Angeles 2019b).

Construction and Demolition Debris Recycling and Reuse Ordinance (Ordinance No. 2005-0004)

The purpose of this ordinance, included as Los Angeles County Code of Ordinances Chapter 20.87, is to increase the recycling and reuse of construction and demolition debris, consistent with the goals of the AB 939. This ordinance requires that at least 50% of all soil, rock, and gravel removed from a project site or all project construction and demolition debris must be recycled or reused unless a lower percentage is approved upon a determination that recycling or reuse of 50% of all such materials is not reasonably feasible. Compliance with this ordinance is ensured through the review and approval of a recycling and reuse plan prior to issuance of a permit, and regular progress reports must be submitted.

Countywide Integrated Waste Management Plan

AB 939 requires each county within California to prepare and administer a Countywide Integrated Waste Management Plan. The Countywide Integrated Waste Management Plan is composed of the county's and cities' solid waste reduction planning documents, an Integrated Waste Management Summary Plan, and a Countywide Siting Element. The Summary Plan describes the steps to be taken by local agencies to achieve the mandated State diversion rate by integrating strategies aimed toward reducing, reusing, recycling, diverting, and marketing solid waste generated within the County of Los Angeles (County of Los Angeles 1997a). The Countywide Siting Element identifies how, for a 15-year planning period, the County and incorporated cities within the County would meet their long-term disposal capacity needs to safely handle solid waste generated in the County that cannot be reduced, recycled, or composted.

City of Los Angeles Department of Water and Power 2020 UWMP

The City is required to adopt an UWMP every five years to comply with California's Urban Water Management Planning Act. The Act is codified in Sections 10610 through 10657 of the California Water Code. The Urban Water Management Planning Act became effective on January 1, 1984, and requires that every urban water supplier that provides municipal and industrial water to more than 3,000 customers (or supplies more than 3,000 acre-feet per year) prepare and adopt an UWMP every five years in accordance with prescribed requirements in order to be eligible for State grant funding and/or financial assistance. The key reporting requirements in the UWMP include the following:

- Existing and planned sources of water.
- Water demand forecasting.
- Conservation efforts to reduce water demand.
- Activities to develop alternative sources of water.
- Assessment of reliability and vulnerability of water supply.
- Water shortage contingency plan.
- Reporting on climate change impacts and energy intensity.

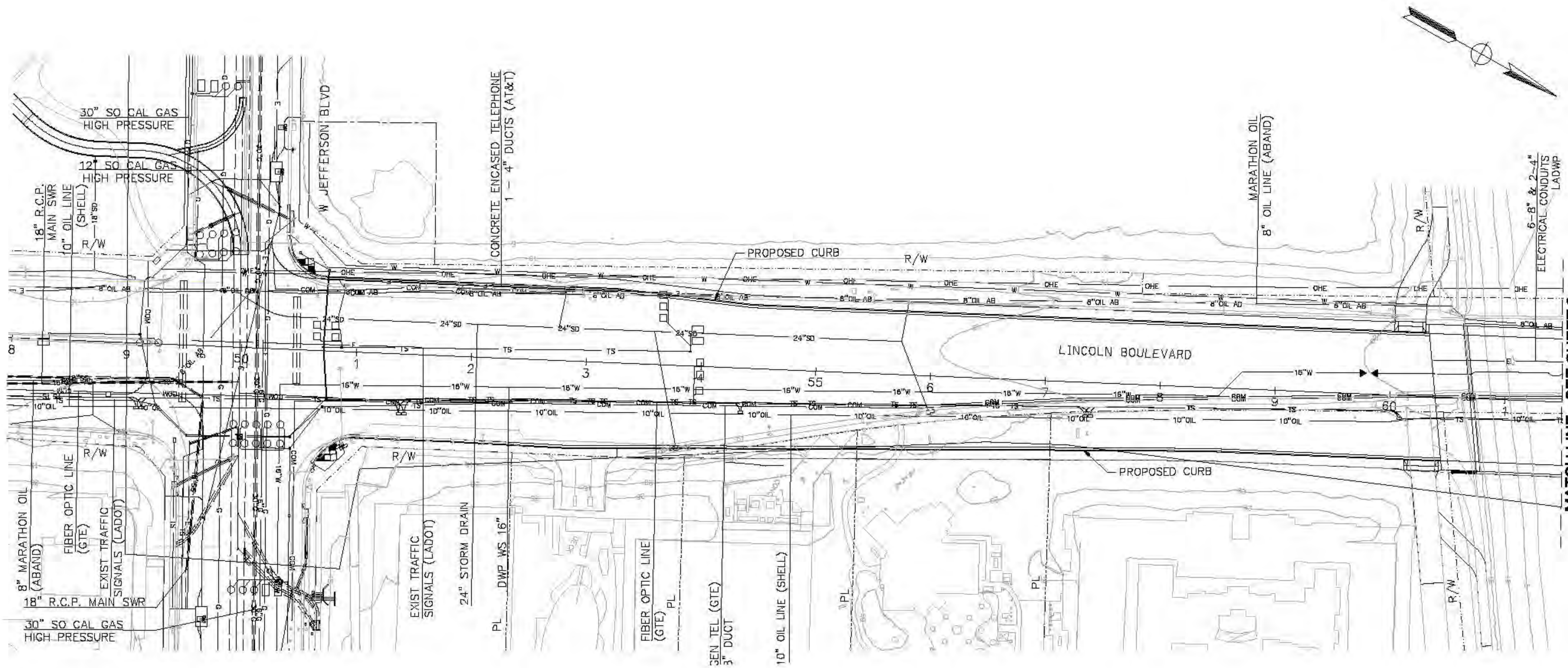
The 2020 UWMP is the last adopted plan and serves as the City's master plan for reliable water supply and resources management. With a 25-year planning horizon through the year 2045, the 2020 UWMP includes a strategy to achieve the City's goals and policy objectives for reliable water supply (LADWP 2020a)

Marina Del Rey Water System Urban Water Management Plan 2010 and 2015

The Marina Del Rey Water System Urban Water Management Plan 2015 covers parcels along the northwestern portion of the project site that are under the jurisdiction of the County. The 2015 UWMP includes a description of the water supply sources and projected water use, and a comparison of water supply water demands during normal, single-dry, and multiple-dry years.

Environmental Setting

Several existing utilities and storm drains occur within the project site. These existing facilities are described below and are depicted in Figure 2.1.9-1. Storm drains are discussed in more detail in Chapter 2.2.1, Hydrology and Floodplain.



Existing Utilities and Storm Drains

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

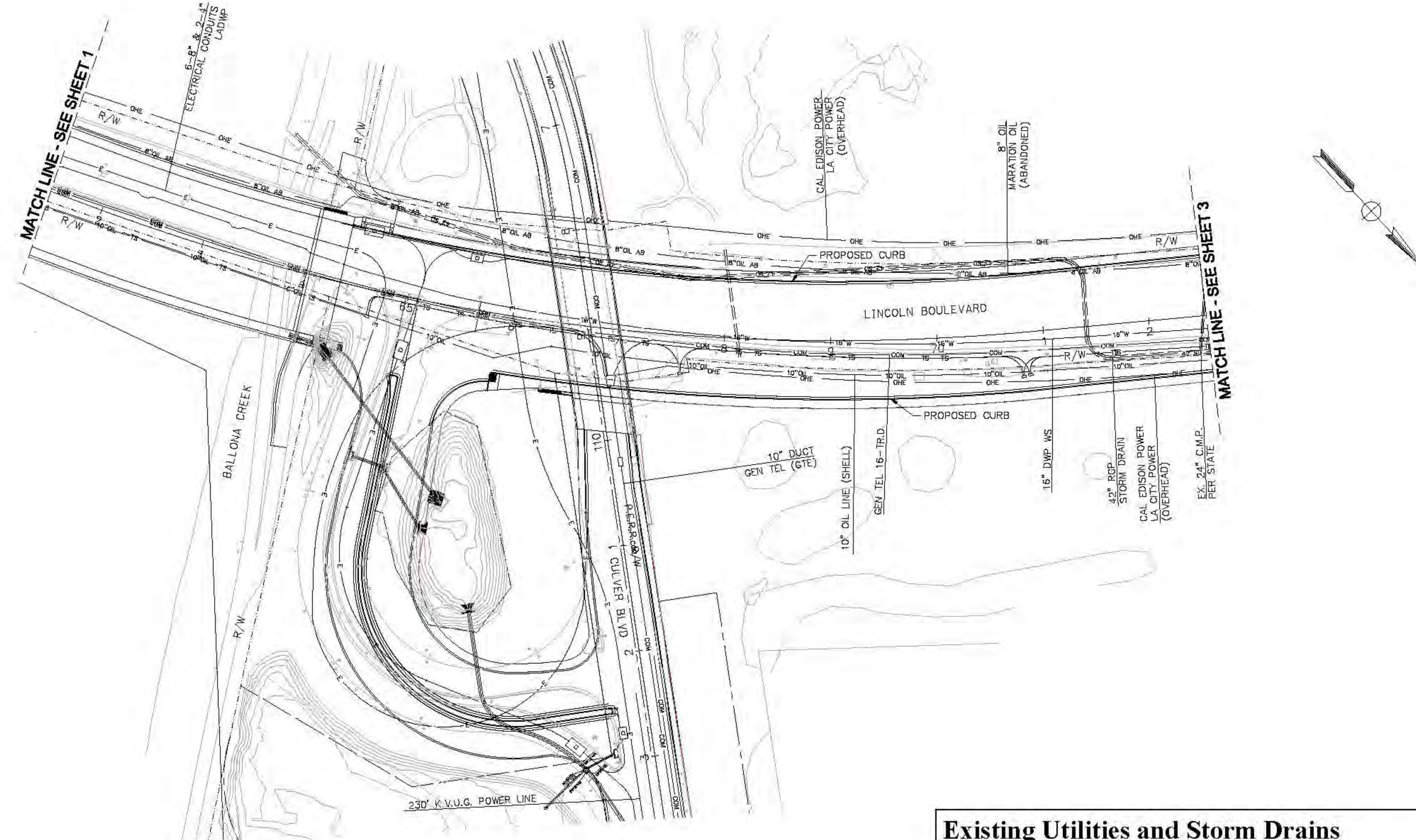
07-LA-1, PM30.16/30.74

EA 33880

Source: Caltrans 2010

Caltrans

Figure 2.1.9-1a



Existing Utilities and Storm Drains

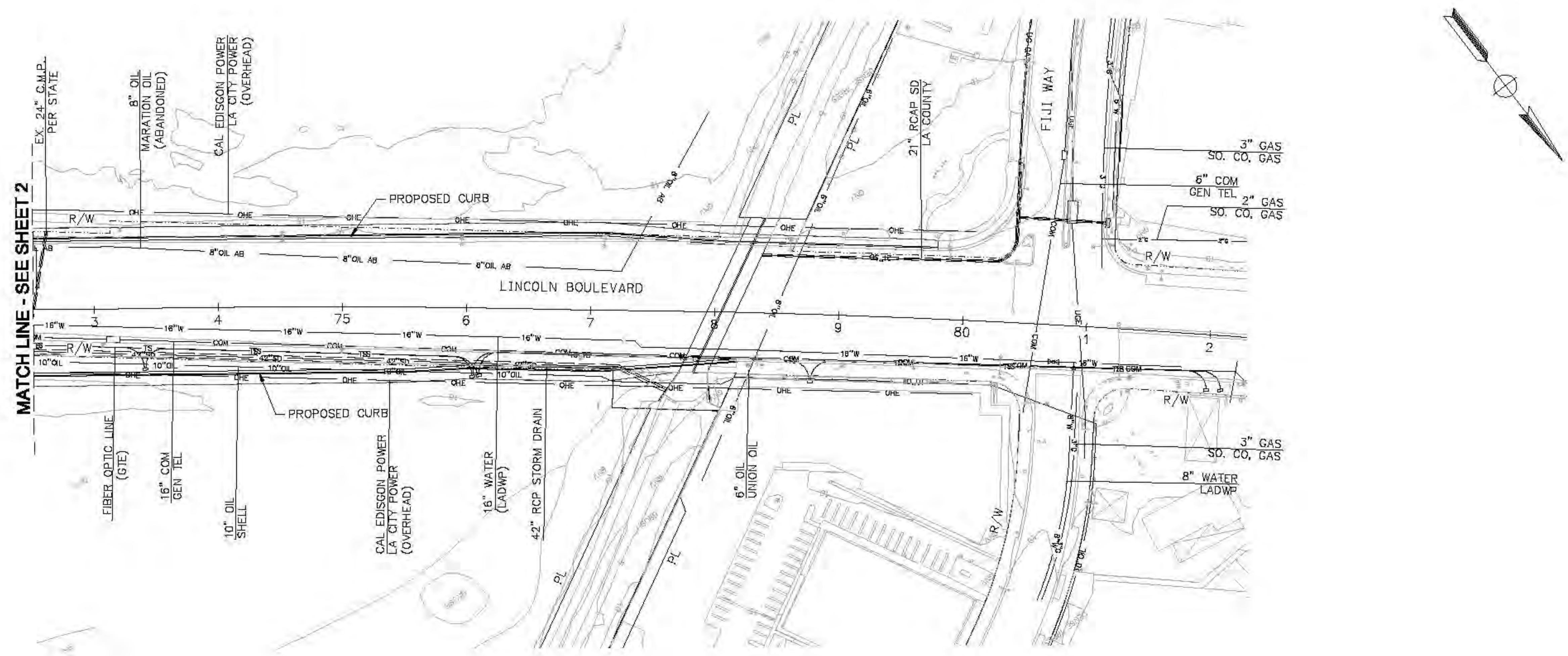
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Caltrans 2010

Figure 2.1.9-1b



Existing Utilities and Storm Drains

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Caltrans 2010

Figure 2.1.9-1c

Water

The City of Los Angeles Department of Water and Power (LADWP) supplies water to portions of the project site that are within the City of Los Angeles. Existing LADWP Water lines within the project site consist of the following:

- A 16" water pipe owned by the LADWP is located along the centerline of SR-1/Lincoln Boulevard. This line is attached to the second interior girder on the west side of the existing bridge.
- An 8" LADWP water line is located within Fiji Way east of SR-1/Lincoln Boulevard northeast of the project site.

Wastewater

The LADWP's Bureau of Sanitation is responsible for operating and maintaining the City of Los Angeles's wastewater collection and treatment system. Wastewater facilities within the project site consist of the following:

- An 18" sewer line runs west along SR-1/Lincoln Boulevard, which then turns south along SR-1/Lincoln Boulevard on the southern edge of the project site.

Oil

The project site is located partially within the Playa Del Rey Oil/Gas Field (DOC 2023d). There are no oil wells within the project site; however, there are many oil and natural gas wells that are active, idle, and/or plugged within the BWER and elsewhere near the project site. Oil distribution facilities that are located within the project site are described below:

- There is a 10-inch crude oil pipeline that is on the east side of SR-1/Lincoln Boulevard within the project site, which is owned by Shell.
- An abandoned 8" oil line along the west side of SR-1/Lincoln Boulevard within the project site, which is owned by Marathon.
- Also, a 6" oil line owned by Union oil runs along the northern edge of Fiji Ditch in the northern portion of the project site, which traverses SR-1/Lincoln Boulevard from east-to-west.

Natural Gas:

Natural gas service within and near the project site is provided by Southern California Gas Company (SCE). The following natural gas facilities are on the project site:

- There is a 30" SoCalGas high pressure natural gas transmission line that is located within Jefferson Boulevard along the southern edge of the project site.
- 2-inch and 3-inch SoCalGas distribution lines are located within Fiji Way on the north side of the project site.

Telecommunications:

Existing AT&T telephone ducts, GTE fiber optic lines, and GTE general telephone ducts are located within the project site along SR-1/Lincoln Boulevard and Culver Boulevard. This includes the following facilities:

- Four 5-inch telephone conduits are attached to the exterior girder on the west side of the existing SR-1/Lincoln Boulevard bridge.
- Twelve 4-inch telephone conduits are attached to the first interior girder on the west side of the existing SR-1/Lincoln Boulevard bridge.
- One 4-inch and one 2-inch communication conduits are located at the easterly exterior girder bay of existing bridge.

Electricity:

Electrical service within and near the project site is provided by LADWP. SCE also has facilities within the project site. Existing electrical facilities in the project site include the following:

- Overhead electrical lines are located on both sides of SR-1/Lincoln Boulevard from Fiji Way to Culver Boulevard, where they change direction and travel along the north side of Culver Boulevard in both directions away from the project site.
- Six 8-inch power ducts and two 4-inch LADWP power ducts/conduits are located on the existing SR-1/Lincoln Boulevard bridge.
- Six electrical conduits are located on the existing Culver Boulevard bridge.
- One 230 Kilovolt (KV) underground power line is located south of Culver Boulevard and the Culver Boulevard bridge, which traverses SR-1/Lincoln Boulevard from east-to-southwest.

Streetlights

Streetlights occur irregularly within the project site.

Between Fiji Way and the Culver Boulevard bridge, the west side of SR-1/Lincoln Boulevard is entirely lit with approximately twelve street lights. Along this stretch, there are only approximately four street lights along the east side of the road, which begin at Fiji Way and end approximately 300 feet to the south. This results in approximately 1,000 feet of the east side of the roadway not being lit by streetlights along this segment of SR-1/Lincoln Boulevard.

There are approximately six existing streetlights along the Culver Loop and another six street lights at the SR-1/Lincoln Boulevard and Culver Loop intersection.

There are five standard streetlights on the east side of SR-1/Lincoln Boulevard south of Ballona Creek and north of Jefferson Boulevard. Only approximately half of this side of the street is lit along this segment of SR-1/Lincoln Boulevard.

There are eight solar-powered streetlights located along the west side of SR-1/Lincoln Boulevard between Jefferson Boulevard and Ballona Creek, which provide lighting for this entire side of the street along this segment of SR-1/Lincoln Boulevard.

Solid Waste

Solid waste disposal services within and near the project site are provided by Athens Services under contract to LA Sanitation.

Police

Police protection services are provided to the project site by the Los Angeles Police Department (LAPD). The LAPD’s Pacific Division Station is located approximately 1.1-miles east of the project site 12312 Culver Boulevard.

The LA County Sheriff’s Department’s Harbor Patrol provides law enforcement on the water and on the docks of Marina del Rey. Typical calls for service range from enforcement stops for boating law or safety violations to open water rescue and medical emergencies. The LA County Harbor Patrol facility is located approximately 0.3-mile west of the project site at 13851 Fiji Way.

Fire

The project site and vicinity are served by the Los Angeles (City) Fire Department and the Los Angeles County Fire Department. The nearest fire station is Los Angeles Fire Department Station 67 located at 5451 Playa Vista Drive, just east of the project site.

Hospitals

Cedars-Sinai Marina del Rey Hospital is located 0.28-mile north of the project site at 4650 Lincoln Boulevard in Marina Del Rey. The locations of police and fire stations, as well as hospitals is provided in Figure 2.1.9-2.

Schools

The project site and vicinity are served by the Los Angeles Unified School District. The nearest public school is Playa Vista Elementary located at 13150 Bluff Creek Drive approximately 0.35-mile southeast of the project site.

Libraries

Libraries near the project site are operated by the Los Angeles Public Library system. The nearest library to the project site is the Playa Vista Branch Library located 1,500 feet southeast of the project site. Also, the Los Angeles County Public Library's Lloyd Taber Library-Marina del Rey Library is located 0.5-mile north of the project site.

Disaster and Evacuation Routes

As shown in Figure 2.1.9-3, SR-1/Lincoln Boulevard is designated by the County of Los Angeles as a primary disaster route. There are no other designated disaster or evacuation routes within the project site, or plans that are directly applicable to the Project.

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Since Alternative 1 would involve no construction, there would be no short-term effects to utilities and service systems, such as utility relocations. There would also be no temporary construction effects to evacuation routes with Alternative 1.

<u>Operational Effects</u>

Since Alternative 1 would involve no improvements, there would be no operational effects to utilities and service systems. Also, under Alternative 1, the existing utilities on the SR-1/Lincoln

Community Facilities Map

State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas; Aerial: Esri, Maxar 2022

Figure 2.1.9-2

Project Limits
Disaster Route
Primary Disaster Routes
Secondary Disaster Routes
500 250 0 500
Feet
Evacuation Routes
State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Psomas; Aerial: Esri, Maxar 2022;
Los Angeles County Public Works 2019
Lincoln Blvd
Marina Expressway
Culver Blvd
W Jefferson Blvd
W Manchester Ave
Admiralty Way
Mindanao Way
Fiji Way

Figure 2.1.9-3

Boulevard Bridge would not be relocated onto a bridge with a higher profile above Ballona Creek designed to accommodate projected sea level rise scenarios. Under Alternative 1, public service providers would experience congestion along the corridor that would be alleviated by Alternative 2. As an evacuation route, SR-1/Lincoln Boulevard would not be improved under this alternative.

Cumulative Effects

Since Alternative 1 would involve no construction or operational effects, Alternative 1 has no potential to contribute to cumulative effects related to utilities and service systems.

Alternative 2 – Base Alternative

Construction Effects

Alternative 2 would require the relocation of existing utilities within the project site with the potential for some temporary service disruptions. All utility relocations would be planned and implemented in coordination with utility providers. The City and/or the California Department of Transportation (Caltrans) coordination with the utility providers is required to avoid temporary or permanent impacts on users.

This Draft EIR/EA assumes that the utilities would be relocated entirely within the permanent and temporary impact footprint for Alternative 2.

During final design, utility relocation plans will be developed in consultation with the utility providers.

As part of standard construction practices and requirements, Underground Service Alert (USA) would be notified of the project prior to construction. USA would inform utility owners of the construction so that they can mark the location of utility lines prior to the beginning of ground disturbing activities.

Water

A minimal amount of potable or gray water (reclaimed water) would be used during construction of Alternative 2 for dust suppression and other construction related activities. Water would also be used by construction workers and for washing and cleaning construction equipment and vehicles. Also, water would be utilized temporarily during construction for the establishment of native plants within temporary impact areas of the project site. Adequate water supplies exist to accommodate the minimal amount of water that would be used during the construction phase.

During construction, the 16-inch water pipe owned by the LADWP that is located along the centerline of SR-1/Lincoln Boulevard and on the SR-1/Lincoln Boulevard bridge would be relocated in accordance with the project plans. The existing 8-inch LADWP water line located within Fiji Way east of SR-1/Lincoln Boulevard northeast of the project site would be protected in place.

Relocation of water supply lines could result in the temporary disruption of water service to customers in the area. However, prior to relocation activities, notice of service disruptions would be given to affected customers.

Wastewater

Construction activities for Alternative 2 would not result in the generation of substantial amounts of wastewater. Portable toilets would be available on-site for construction workers. Consequently, construction activities would not result in the discharge of wastewater into the existing sanitation systems. Wastewater would be produced from dewatering activities; however, this wastewater would be treated on-site and outlet into either Fiji Ditch or Ballona Creek or trucked off-site; therefore, no effects to the City's sewer system would result from construction.

The existing 18-inch LADWP sewer line that runs west along SR-1/Lincoln Boulevard and then turns south along SR-1/Lincoln Boulevard on the southern edge of the project site is expected to be protected in place.

Oil

The 10-inch crude oil pipeline that is on the east side of SR-1/Lincoln Boulevard within the project site is owned by Shell would need to be relocated. The pipeline was identified in records examined by Group Delta as part of the Phase I Initial Site Assessment (ISA) that was prepared for this Project as the Ventura 10-inch System.

Also, there is an abandoned 8-inch oil line along the west side of SR-1/Lincoln Boulevard within the project site, which is owned by Marathon. This line is in conflict with the Alternative 2 design and would need to be relocated, removed, or abandoned in place.

The 6-inch oil line owned by Union oil that runs along the northern edge of Fiji Ditch in the northern portion of the project site would either need to be protected in place or relocated.

Natural Gas

Natural gas would not be utilized in substantial quantities during construction of Alternative 2.

The 30-inch SoCalGas high pressure natural gas line that is located within Jefferson Boulevard along the southern edge of the project site would be protected in place during construction.

The various 2-inch and 3-inch SoCalGas distribution lines that are located within Fiji Way on the north side of the project site would also be protected in place.

Telecommunications

During construction of Alternative 2, AT&T telephone ducts, GTE fiber optic lines, and GTE general telephone ducts would need to be relocated along SR-1/Lincoln Boulevard and Culver Boulevard.

Relocation of telecommunication lines could result in the temporary disruption of telecommunication services. Prior to relocation activities, notice of service disruptions would be given to affected customers.

Electricity

Construction of Alternative 2 would require electricity as described in more detail in the energy analysis provided in Chapter 3, California Environmental Quality Act Evaluation. No new offsite power or electrical infrastructure improvements would be required to accommodate the amount of energy needed for the Project.

Existing electrical lines located along the bridge would be relocated to the new replacement bridge once the eastern half of the new bridge has been constructed. Electrical lines within the Ballona Creek bridge would be temporarily de-energized, then would be relocated to the new bridge. Coordination would occur during final design with LADWP and SCE regarding these relocations.

Overhead utilities that are on the east side of SR-1/Lincoln Boulevard would be relocated at the end of Stage 2 of construction.

Overhead utilities that are on the west side of SR-1/Lincoln Boulevard would be relocated at the end of Stage 3 of construction.

There is a 230KV underground power line located south of Culver Boulevard and the Culver Boulevard bridge, which traverses SR-1/Lincoln Boulevard from east-to-southwest, which would be protected in place during construction.

Streetlights

All streetlights along SR-1/Lincoln Boulevard and Culver Boulevard within the project site would be removed during construction of Alternative 2.

Thereafter, new streetlights would be installed along SR-1/Lincoln Boulevard within the project site. New streetlights would be installed in accordance with Los Angeles Bureau of Street Lighting standards. Generally, these new streetlights would be approximately 30 feet in height and would be spaced approximately 140 feet from each other. Alternative 2 would result in the addition of approximately ten streetlights when compared to existing conditions, since some areas of the roadway are currently not lit.

Solid Waste

Construction of Alternative 2 would require the disposal of debris resulting from the demolition of the existing roadways and bridge structures within the project site. Demolition of these existing facilities would require disposal of materials such as including asphalt, concrete, steel, rebar, and other materials. A minimum 50 percent of construction and demolition debris would be diverted in accordance with AB 75, to which cities, counties, and regional agencies are subject. Recyclable materials would be hauled to local recycling facilities or inert landfills. This would minimize the use of Los Angeles County solid waste landfills and, therefore, minimize effects to landfill capacity. With the primary use of recycling facilities and inert landfills, capacities at existing permitted municipal solid waste facilities would not be adversely affected by the temporary and short-term disposal needs of the Project.

Police/Fire/Emergency Medical Services

Construction of Alternative 2 would not substantially increase demand for police or fire services. There would be a temporary increase in potential for calls for police, fire, and/or emergency medical services to address issues that occur on construction sites from time to time, including vandalism, theft, trespassing, and/or medical emergencies.

Construction of Alternative 2 would require the temporary closure and detour of Culver Boulevard at SR-1/Lincoln Boulevard.

Also, construction of Alternative 2 would require temporary lane closures along SR-1/Lincoln Boulevard. A minimum of two lanes would be maintained in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted as specified in the forthcoming Transportation Management Plan (TMP).

MM TRANS-1 would be implemented during construction of Alternative 2, requiring that the contractor will prepare and implement a coordinated TMP for the Project to avoid and minimize impacts to local vehicular traffic, pedestrians, and bicyclists. Implementation of **MM TRANS-1**

would ensure that police, fire, and emergency medical services are not substantially delayed in responding to calls for service.

Hospitals

Construction of Alternative 2 would not lead to any substantial direct increases in demand for hospital services at Cedars-Sinai Marina del Rey Hospital or any other nearby hospitals. Alternative 2 would not result in any temporary construction easements from any hospitals, nor would any changes in access to hospitals occur during construction.

Schools

Construction of Alternative 2 would not lead to any direct increases in demand for schools. Construction would not lead to any direct population growth that would have the potential to generate students. Alternative 2 would not result in any temporary construction easements within schools, or changes in access to any schools during construction.

Libraries

Construction of Alternative 2 would not lead to any direct increases in demand for libraries. Construction would not lead to any direct population growth that would have the potential to generate demand for library services. Alternative 2 would not result in any temporary construction easements from any libraries, or changes in access to libraries during construction.

Disaster and Evacuation Routes:

As shown in Figure 2.1.9-3, SR-1/Lincoln Boulevard is designated by the County of Los Angeles as a primary disaster route. Construction of Alternative 2 would require temporary lane closures along SR-1/Lincoln Boulevard. A minimum of two lanes would be maintained in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted as specified in a TMP as specified in **MM TRANS-1**.

Also, construction of Alternative 2 would result in the temporary closure of Culver Boulevard between the Culver Loop in the east and the Culver Boulevard/Jefferson Boulevard intersection in the west. Culver Boulevard is not a designated disaster or evacuation route, but does provide inland connections for individuals that are in Playa Del Rey.

There are no specific emergency response or evacuation plans that directly relate to the project site. Given that SR-1/Lincoln Boulevard would be maintained during construction, Alternative 2 would not impair implementation of or otherwise interfere with any adopted emergency response or emergency evacuation plans.

<u>Operational Effects</u>

Water

Alternative 2 would not involve construction of any structures that would consume water or require a water supply. Water would be utilized temporarily during construction for the establishment of native plants within temporary impact areas of the project site; however, irrigation would be temporary and would cease at the end of construction. Thus, Alternative 1 would not affect water supply, infrastructure, or service, and no adverse effects to water would result from operation of Alternative 1.

Wastewater

Alternative 2 would not develop any structures or land uses that would generate wastewater. Thus, Alternative 2 would not affect wastewater treatment capacity, infrastructure, or service. No adverse effects to wastewater treatment would result from operation of Alternative 2.

Oil/Natural Gas

Operation of Alternative 2 would result in the relocation of various segments of oil and natural gas pipeline infrastructure. Relocation would be accomplished during construction, and is not expected to result in adverse effects. Thus, no permanent operational effects to oil or natural gas infrastructure would occur during operation of Alternative 2.

Telecommunications

Alternative 2 would not result in permanent operational effects to telecommunication facilities, infrastructure, or service. All required relocation of telecommunication lines would be accomplished during construction. The operation of the roadway and bridges under Alternative 2 would not result in any demands for telecommunications.

Electricity

Operation of Alternative 2 would result in the consumption of electricity used for streetlighting and traffic signals to increase safety and security. The amount of electricity required for such lighting would not be substantial given that there are a limited number of new streetlights proposed. For example, a typical LED streetlight is anticipated to draw between 100 and 200 watts (Power Systems Design 2023a). Furthermore, these streetlights are replacing older streetlights along the roadway that already require energy in existing conditions. The addition of approximately ten new streetlights beyond existing conditions would not require any new sources of electricity or off-site upgrades to any electrical infrastructure.

Solid Waste

Alternative 2 would not develop any structures or land uses that would generate solid waste that would require disposal. Thus, Alternative 2 would not affect solid waste disposal providers or their facilities.

Police/Fire/Emergency Medical Services/Hospitals

Operation of Alternative 2 would not impede the ability of emergency service providers to respond to emergencies.

Alternative 2 would result in an additional southbound vehicular travel lane on SR-1/Lincoln Boulevard when compared to existing conditions, which would improve police, fire, and emergency medical service provider response in the southbound direction.

Also, the new bridge over Ballona Creek has been designed to accommodate sea level rise.

Schools

Operation of Alternative 2 would not lead to any direct increases in demand for schools since Alternative 2 does not include any land uses that would have the potential to generate students, such as residential land uses. Alternative 2 would not result in any right-of-way acquisitions from schools, or changes in access to any schools.

Libraries

Operation of Alternative 2 would not lead to any direct increases in demand for libraries since Alternative 2 does not include any land uses that would have the potential to generate library patrons such as residential uses or land uses that would generate employees. Alternative 2 would not result in any right-of-way acquisitions from libraries, or changes in access to any libraries.

Disaster and Evacuation Routes

Alternative 2 would result in an additional southbound vehicular travel lane on SR-1/Lincoln Boulevard when compared to existing conditions, which would improve police, fire, and emergency medical service provider response in the southbound direction.

SR-1/Lincoln Boulevard is an evacuation route; therefore, improvements to circulation along SR-1/Lincoln Boulevard would improve circulation along an evacuation route.

Also, the new SR-1/Lincoln Boulevard bridge over Ballona Creek has been designed to accommodate sea level rise, which would help to maintain this critical connection into the future.

Therefore, Alternative 2 would improve the function of SR-1/Lincoln Boulevard as an evacuation route when compared to existing conditions.

Cumulative Effects

Operation of Alternative 2 would not adversely affect utilities or service providers as demonstrated above. Therefore, Alternative 2 would not contribute to any cumulative effects related to this resource topic.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Construction of Alternative 2A would have the same effects as Alternative 2 related to utilities and service systems.

Operational Effects

Once built, Alternative 2A would have the same operational effects related to utilities and service systems as would Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to utilities and service systems would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Construction of Alternative 2B would have the same effects as Alternative 2 related to utilities and service systems.

Operational Effects

Once built, Alternative 2B would have the same operational effects related to utilities and service systems as would Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to utilities and service systems would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Construction of Alternative 2C would have the same effects as Alternative 2 related to utilities and service systems.

Operational Effects

Once built, Alternative 2C would have the same operational effects related to utilities and service systems as would Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to utilities and service systems would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Construction of Alternative 2D would have the same effects as Alternative 2 related to utilities and service systems.

Operational Effects

Once built, Alternative 2D would have similar operational effects related to utilities and service systems as would Alternative 2. The only difference between these two alternatives is that Alternative 2D would include an additional four pedestrian lights along the new ramp, which would result in additional energy demand when compared to Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to utilities and service systems would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM TRANS-1**: During final design, the City will prepare a coordinated Transportation Management Plan (TMP) for the Project to minimize effects to local vehicular traffic, pedestrians, and bicyclists. The TMP shall be implemented by the contractor during construction. The TMP shall be consistent with City and Caltrans policies and procedures. At a minimum, the TMP will include the following:

- A map showing the locations of temporary detours and signage to facilitate local traffic patterns and through traffic requirements.
- Requirements for the contractor to conduct a public awareness campaign in advance of and during construction in coordination with the City and Caltrans Public Information Offices.
- Requirements for the use of real-time communications with motorists such as changeable message signs to alert motorists of upcoming construction activities, detours, and travel conditions as applicable.
- Requirements that Comprehensive Stage Construction and Traffic Handling Plans be prepared and submitted to the City and Caltrans for review and approval.
- Requirements to maintain a minimum of two lanes in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted. Special measures for advance outreach to public service providers and to the local community shall be specified in the TMP to minimize effects to emergency response times and to the community.
- Measures to facilitate coordination with transit providers to ensure that bus routes using SR-1/Lincoln Boulevard and Culver Boulevard are not adversely affected during construction.
- Requirements to provide 10 days of notice to emergency service providers, local transit providers, and local school districts of any construction activity that would hinder emergency vehicle response time, bus travel routes, or access to/from schools.
- Measures to ensure the provision of safe travel for pedestrians and bicyclists during construction, including detouring and maintaining operation of the Ballona Creek Bike Path. A sidewalk and unobstructed pedestrian access would be provided at all times during construction on at least one side of the roadway between Jefferson Boulevard in the south and the Ballona Creek Bike Path in the north.

2.1.10 Transportation

Information in this section is derived in part from the following technical study:

- Fehr & Peers. 2023 (October). Lincoln Bridge Transportation Analysis Report 2023 Update. Los Angeles, CA: Fehr & Peers.
- Fehr & Peers. 2020 (January). Transportation Analysis Report. Lincoln Bridge Multi-Modal Improvement Project. Los Angeles, CA: Fehr & Peers.

Regulatory Setting

Federal

The Department, as assigned by the FHWA, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of Federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all Federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally-assisted programs is governed by the USDOT regulations (49 CFR 27) implementing Section 504 of the Rehabilitation Act (29 United States Code 794). The FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to Federal-aid projects, including Transportation Enhancement Activities.

State

As the owner and operator of the State Highway System, the State of Caltrans implements established State planning priorities in all functional plans, programs, and activities. Caltrans has the responsibility to coordinate and consult with local jurisdictions when proposed local land use planning and development may effect State highway facilities. Pursuant to Section 21092.4 of the Public Resources Code, for projects of Statewide, regional, or area-wide significance, the lead agency shall consult with transportation planning agencies and public agencies that have transportation facilities which could be affected by the Project. The proposed Project will not affect any Caltrans facilities and is not considered a project of Statewide, regional, or area-wide significance.

Senate Bill 743

With the adoption of Senate Bill (SB) 743, the State of California changed the method of traffic analysis required through CEQA for publicly- and privately-initiated projects. The law changed the way local jurisdictions analyze transportation effects from development projects and identify mitigation measures to reduce those effects. SB 743 became effective on July 1, 2020. SB 743 requires the amount of driving and length of trips — as measured by vehicle miles traveled (VMT) — be used to assess transportation effects on the environment for CEQA review. These effects will be reduced or “mitigated” by options such as increasing transit, providing for active transportation (e.g., walking and biking), and participating in mitigation banks. All CEQA Lead Agencies have the option to tailor requirements to their unique communities.

Local

Local and regional plans, polices, programs, and ordinances that relate to the Project are evaluated in Chapter 2.1.2, Consistency with Plans and Programs, which include:

- SCAG Federal Transportation Improvement Program;
- Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS);
- City of Los Angeles Mobility Plan 2035;
- City of Los Angeles Westside Mobility Plan;
- Vision Zero Los Angeles;
- City of Los Angeles Los Angeles Coastal Transportation Corridor Specific Plan (ZI-1874);
- Los Angeles County General Plan (2035);
- Los Angeles County Bicycle Master Plan;
- Step By Step Los Angeles County;
- Los Angeles Metro Vision 2028 Plan; and
- Los Angeles Metro 2020 Long Range Transportation Plan.

Environmental Setting

Roadway Network

The roadway network within the project site is described below.

- ***SR-1/Lincoln Boulevard*** is designated by the City as a Boulevard I and runs north/south with two to three travel lanes in each direction within the project site. On the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek, the southbound direction provides two travel lanes and the northbound direction provides three travel lanes. At Jefferson Boulevard, the southbound direction of SR-1/Lincoln Boulevard widens to provide four travel lanes. Along this stretch, lanes are 10 feet wide and parking is not permitted on either side.
- ***Jefferson Boulevard*** is designated by the City as a Boulevard II and runs east/west with two to three travel lanes in each direction within the project site. Lanes are approximately 10 feet wide and parking is not permitted on either side of the street on Jefferson Boulevard within the project site.
- ***Culver Boulevard*** is designated by the City as an Avenue I east of SR-1/Lincoln Boulevard and an Avenue III west of SR-1/Lincoln Boulevard. Culver Boulevard runs northeast/southwest with one travel lane in the southwest direction and two lanes in the northeast direction within the project site. The Culver Loop provides northbound and southbound access to SR-1/Lincoln Boulevard from Culver Boulevard with one right-turn lane from Culver Boulevard to northbound SR-1/Lincoln Boulevard, one protected left-turn lane from Culver Boulevard to southbound SR-1/Lincoln Boulevard, and one left-turn lane from SR-1/Lincoln Boulevard onto northeast-bound Culver Boulevard. The existing Culver Bridge over SR-1/Lincoln Boulevard provides one travel lane in each direction.
- ***Fiji Way*** is designated by the City as a Local Street. It runs east/west and provides one to two travel lanes west of SR-1/Lincoln Boulevard and provides one travel lane in each direction east of Lincoln. Lanes are approximately 10 feet wide with parking permitted on both sides of the street, east of Lincoln.

Bicycle Network

Within the project site, Ballona Creek Bike Path is identified by the City of Los Angeles Mobility Plan as part of the Bicycle Enhanced Network, which consists of streets and paths prioritized for safe and comfortable bicycle travel, and enhanced bicycle facilities. Within the project site, all of SR-1/Lincoln Boulevard is identified as being part of the Transit Enhanced

Network, which is a network of streets prioritized for upgrades to improve transit performance and enhance rider facilities, such as transit shelters.

Pre-Project Traffic Volumes and Level of Service (LOS) Analysis

Pre-Project intersection traffic volumes, lane configurations, and signal timings were used to calculate level of service (LOS) for the four intersections that were analyzed as part of the Project's Transportation Analysis Report (TAR) during the AM and PM peak hours. The AM peak hours are from 7:00 A.M. to 9:00 A.M. and the PM peak hours are from 4:00 P.M. to 6:00 P.M. The results of the LOS analysis are provided in the TAR.

The traffic volumes collected along SR-1/Lincoln Boulevard reveal peak hour directionality, which means that peak hour volumes are heavier in the northbound direction in the AM peak hour and in the southbound direction during the PM peak hour. Therefore, the southbound bottleneck due to the lane reduction is more prominent during the PM peak hour. As the results of the TAR show, two of the four study intersections operate at LOS C or better during the PM peak hour. The following intersections operate at LOS D, E, or F during one or more of the peak hours analyzed:

1. SR-1/Lincoln Boulevard & Fiji Way (LOS D during the AM peak hour).
2. SR-1/Lincoln Boulevard & Culver Loop to SR-1/Lincoln Boulevard (LOS E during the AM peak hour).
3. SR-1/Lincoln Boulevard & Jefferson Boulevard (LOS F during the AM peak hour and LOS D during the PM peak hour).

Queue Analysis

The 95th percentile queue lengths were calculated as part of the Project's TAR for critical turning movements at each of the four intersections in the TAR study area. The 95th-percentile queue is the queue length (in vehicles) that has only a 5-percent probability of being exceeded during the analysis time period. Queue lengths exceed storage lengths at the following approaches:

- SR-1/Lincoln Boulevard & Fiji Way – northbound lane (AM peak hour).
- SR-1/Lincoln Boulevard & Culver Loop to SR-1/Lincoln Boulevard – westbound right turn lane (AM peak hour).
- SR-1/Lincoln Boulevard & Culver Loop to SR-1/Lincoln Boulevard – westbound lane (PM peak hour).

- SR-1/Lincoln Boulevard & Jefferson Boulevard – southbound lane (AM and PM peak hours).
- SR-1/Lincoln Boulevard & Jefferson Boulevard – westbound right turn lane (AM peak hour).
- SR-1/Lincoln Boulevard & Jefferson Boulevard – eastbound lane (AM peak hour).

Queue analysis calculations are presented in the TAR. The intersections analyzed in the TAR are shown in Figure 2.1.10-1.

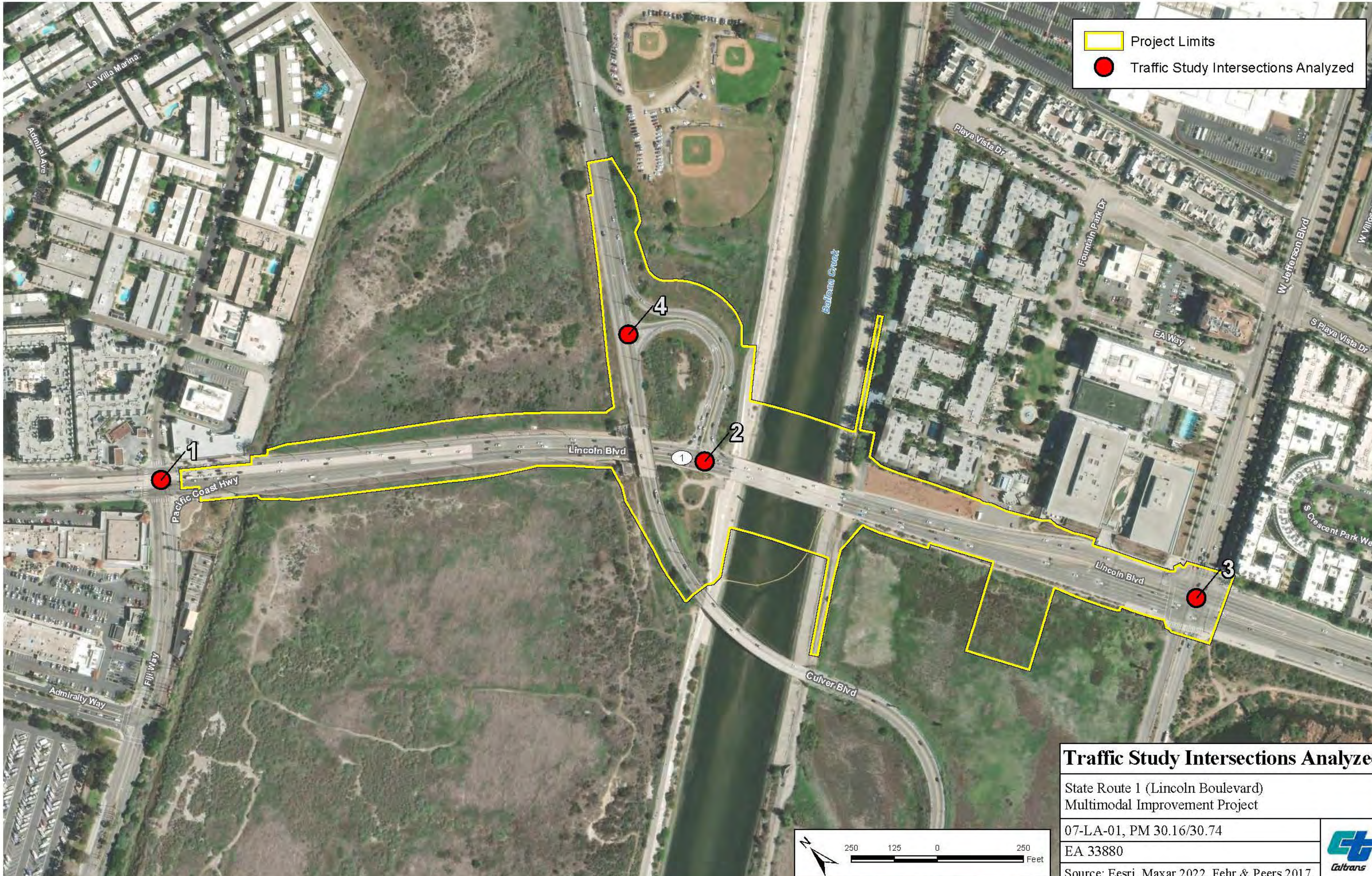
Existing Pedestrian and Bicycle Facilities

Existing and future bicycle facilities that are planned by others are shown in Figure 2.1.10-2. Although SR-1/Lincoln Boulevard serves as a critical north-south connection on the Westside of the City and County of Los Angeles, existing pedestrian facilities are discontinuous within the project site.

The Ballona Creek Bike Path crosses the project site and is located along the northern bank of Ballona Creek. There are existing ramp entrances on the northbound and southbound sides of SR-1/Lincoln Boulevard that provide access to the Ballona Creek Bike Path; however, these ramps do not lead to any dedicated bicycle or pedestrian connections. Northbound SR-1/Lincoln Boulevard does not have bicycle or pedestrian facilities north of the Ballona Creek Bridge, and currently there are no bike or pedestrian facilities on either side of the SR-1/Lincoln Boulevard Bridge over Ballona Creek. South of Ballona Creek, SR-1/Lincoln Boulevard has a sidewalk on the northbound side of SR-1/Lincoln Boulevard, but no sidewalk exists on the southbound side, and no dedicated bicycle facilities exist in either direction.

There are existing bike lanes along Fiji Way west of SR-1/Lincoln Boulevard and on SR-1/Lincoln Boulevard south of Jefferson Boulevard in the study area. There is a bike path along Admiralty Way and along Ballona Creek. Metro's Active Transportation Strategic Plan (ATSP) identifies corridors proposed to receive bicycle and pedestrian improvements. The ATSP identifies improvements along portions of SR-1/Lincoln Boulevard (the addition of a bike lane as part of the Project description), Fiji Way, and the southern end of Culver Boulevard within the study area. The City's Mobility Plan includes the Ballona Creek Bike Path as part of its Bicycle Enhanced Network.

CDFW's Ballona Wetlands Restoration Project proposes to restore wetlands along Ballona Creek adjacent to the project site. CDFW's Ballona Wetlands Restoration Project would include public access improvements, which are discussed in more detail in Chapter 2.1.4, Parks and Recreational Facilities, of this Draft EIR/EA. The Project has been developed to be consistent



Traffic Study Intersections Analyzed

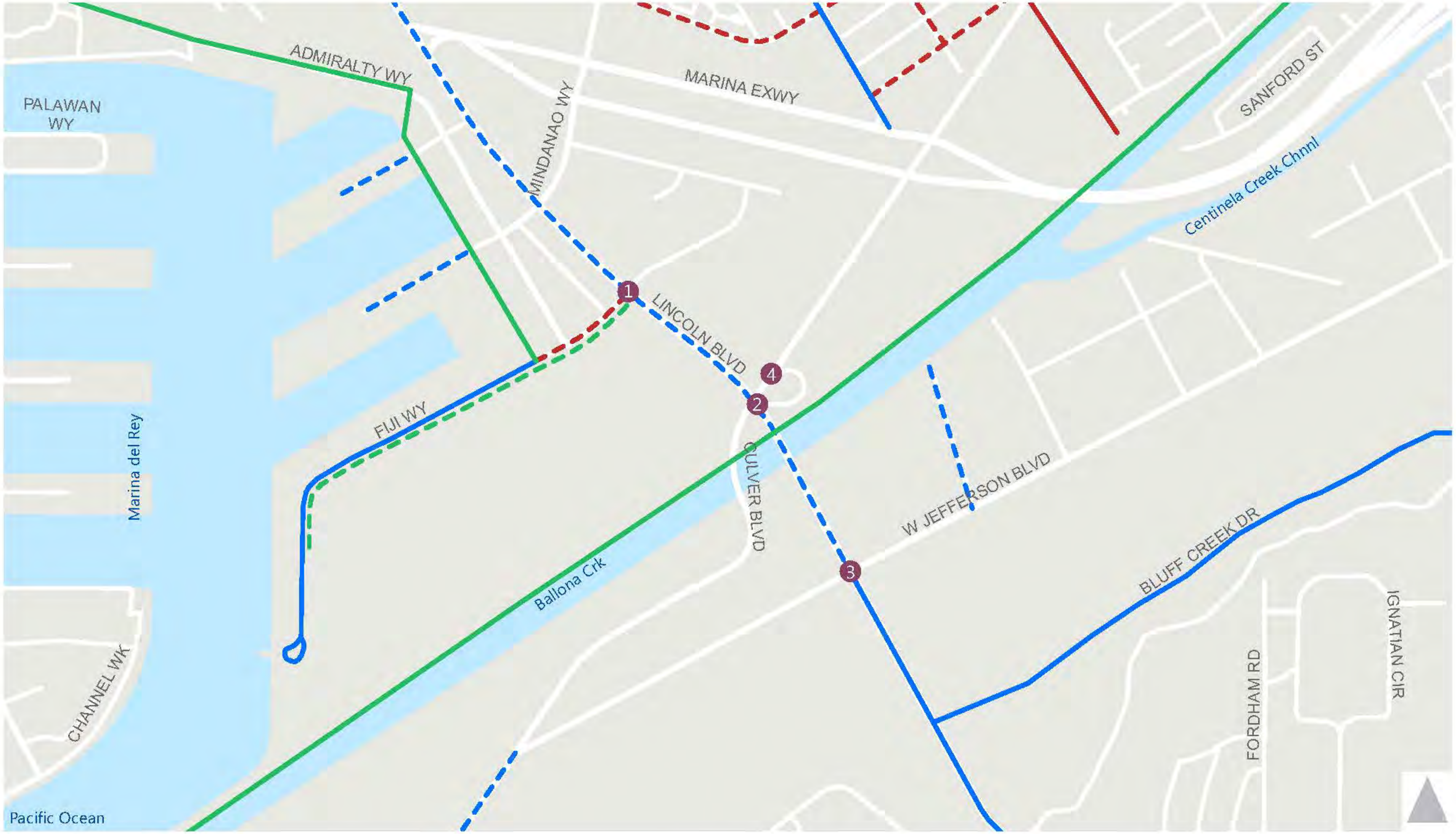
State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project

07-LA-01, PM 30.16/30.74

EA 33880

Source: Esri, Maxar 2022, Fehr & Peers 2017.

Figure 2.1.10-1



Study Intersections
Existing Bike Path
Existing Bike Lane
Existing Sharrowed Route
Planned Bike Path
Planned Bike Lane
Planned Sharrowed Route

Existing and Planned Bicycle Facilities

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Fehr & Peers, 2020

Caltrans

Figure 2.1.10-2

with the access improvements planned for the adjacent CDFW restoration project. Each project would help to improve bicycle and pedestrian connectivity in the project site.

Currently, there are no sidewalks along either side of the SR-1/Lincoln Boulevard Bridge within the project site. South of the bridge, there is a sidewalk only along the eastern side of SR-1/Lincoln Boulevard. There are also no sidewalks present north of the bridge until the intersection at Fiji Way. Sidewalks are present on Jefferson Boulevard east of SR-1/Lincoln Boulevard and on Fiji Way. There are no sidewalks on Culver Boulevard or on Jefferson Boulevard west of Lincoln. Crosswalks with all four legs are present at SR-1/Lincoln Boulevard & Jefferson Boulevard, and only three legs are present at SR-1/Lincoln Boulevard & Fiji Way. With the exception of a continental crosswalk across the westbound right-turn lane at SR-1/Lincoln Boulevard & Fiji Way, the intersections within the project site do not have high-visibility crosswalks.

Existing Transit

Five local and rapid bus routes currently serve the project site which include the Big Blue Bus Line 3/Rapid 3; Metro Line 110; Metro Line 108/358; Culver City Bus Line 7; and Los Angeles Department of Transportation (LADOT) Line 437. Existing transit routes in the project vicinity are shown in Figure 2.1.10-3.

There is one bus stop within the project site, located on the northbound side of SR-1/Lincoln Boulevard just north of Jefferson Way.

Proposed Haul Route

The truck haul route that would be utilized for the Project for trucks coming and going to Interstate 405 is shown in Figure 2.1.10-4.

Accident Conditions in the Project Site

According to Caltrans Traffic Accident Surveillance Analysis System (TASAS) data from 2017, there were recorded 18 collisions on SR-1/Lincoln Boulevard between Fiji Way and Jefferson Boulevard from July 1, 2012 to June 30, 2015 (Psomas 2023a). One of those collisions was fatal, and 14 collisions included injuries. Four collisions involved a bicyclist or pedestrian. Speeding was the primary collision factor for five of the 18 collisions. In addition to the 18 collisions along SR-1/Lincoln Boulevard from Caltrans data, the same time period showed an additional 29 collisions occurring at the Fiji Way and Jefferson Boulevard intersections, according to data included in the SafeTREC UC Berkeley Transportation Injury Mapping System (TIMS). TIMS data recorded 12 collisions on the Culver Boulevard overcrossing during the same time period. Two collisions involved a fixed object while the remainder involved another motor vehicle.

Existing Transit

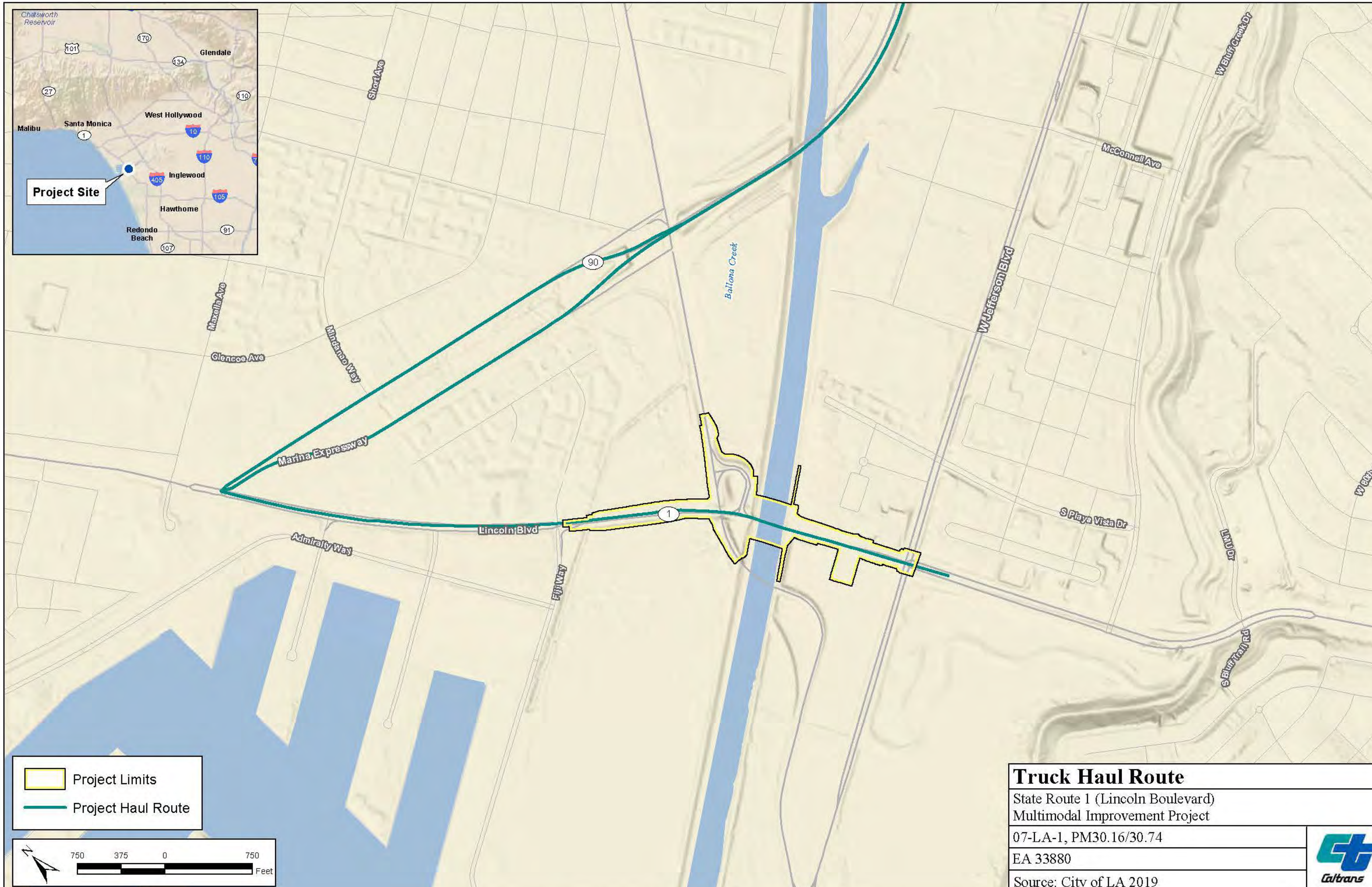
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Fehr & Peers, 2020

Figure 2.1.10-3



Truck Haul Route

State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project

07-LA-1, PM30.16/30.74	
EA 33880	
Source: City of LA 2019	

Figure 2.1.10-4

None of the collisions on the Culver Boulevard overcrossing resulted in a fatality and none involved a bicyclist or pedestrian.

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Since Alternative 1 would involve no construction, there would be no short-term effects related to traffic, transportation, pedestrian, and bicycle facilities. No temporary reduction in lanes would occur in both directions along SR-1/Lincoln Boulevard between Fiji Way and Jefferson Boulevard under Alternative 1. No temporary lane closures or detours of Culver Boulevard would be required under Alternative 1. No detour of the Ballona Creek Bike Path would be needed under Alternative 1.

Operational Effects

Alternative 1 would not implement the planned improvements for SR-1/Lincoln Boulevard that are identified within the City of Los Angeles Mobility Plan 2035, Westside Mobility Plan, and Los Angeles Coastal Transportation Corridor Specific Plan and the SCAG RTP/SCS. Bike lanes and sidewalks would not be installed under this alternative. VMT reductions and southbound vehicular congestion reductions would not occur under Alternative 1. The right-of-way and curb-to-curb cross-section of the SR-1/Lincoln Boulevard would remain the same under this alternative, which would not accommodate future planned transit along SR-1/Lincoln Boulevard.

Cumulative Effects

Alternative 1 would implement no transportation improvements to SR-1/Lincoln Boulevard within the project site. As such, no additional southbound lane, new sidewalks, new buffered bike lanes, or other improvements would occur to SR-1/Lincoln Boulevard, Culver Boulevard, or Culver Loop within the project site.

Cumulative projects in the project vicinity include the adjacent Ballona Wetlands Ecological Restoration Project, which would improve the wetlands and allow for public trails within the BWER. With implementation of Alternative 1, no new or enhanced bicycle or pedestrian connections to the BWER would be built.

Also, Alternative 1 would not accommodate planned transit along SR-1/Lincoln Boulevard, which are cumulative projects within the project vicinity. Therefore, future widening and improvements would be needed once a future Bus Rapid Transit (BRT) or a Grade Light Rail

Transit (LRT) project proceeds within the project site. More information on future planned transit is provided in Table 2-1 and within Chapter 2.1.2, Consistency with Plans and Programs.

Alternative 2 – Base Alternative

<u>Construction Effects</u>

Construction Closures and Detours

Alternative 2 would result in temporary closure of Culver Boulevard from Jefferson Way to the Culver Loop. The detour of Culver Boulevard would be required during the first phase of construction to allow for the demolition and reconstruction of the Culver Boulevard bridge over SR-1/Lincoln Boulevard. During implementation of this detour, traffic that normally travels along Culver Boulevard would instead be routed to alternative corridors including: Centinela Avenue, State Route (SR)-90/Marina Expressway, Jefferson Boulevard, and Short Avenue/Mindanao Way. This would result in a temporary increase in vehicular congestion along these alternate routes.

Alternative 2 would maintain vehicular connectivity along SR-1/Lincoln Boulevard throughout construction. Construction would be staged to first construct half of the new SR-1/Lincoln Boulevard Bridge while traffic is maintained on the existing bridge. Traffic would then be shifted to the new half of the bridge that would be located to the east (upstream) of the existing bridge. Thereafter, the existing bridge would be demolished, and the second half of the bridge would then be constructed on the west side. This approach would maintain at least two lanes of vehicular traffic along SR-1/Lincoln Boulevard during construction, except during limited periods of time during off-peak hours where one lane in each direction may be implemented. This would result in a temporary decrease in roadway capacity and a proportional increase in vehicular congestion.

MM TRANS-1 would be implemented as part of Alternative 2, requiring that the contractor prepare and implement a coordinated Transportation Management Plan (TMP) for the Project to minimize effects to local vehicular traffic, pedestrians, and bicyclists. A minimum of two lanes would be maintained in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted as specified in the TMP described in **MM TRANS-1**.

Construction Traffic and Parking

Construction of Alternative 2 would result in additional traffic on roadways related to new trips that would occur associated with the delivery of materials, construction workers commuting to/from the site, water truck usage, and similar construction-related trips. Construction workers would park within the project site and not in any public parking areas that are used by the nearby communities or private businesses, thereby avoiding the potential for parking effects.

To minimize effects related to contractor traffic and parking that might arise and as required by **MM TRANS-2**, a Contractor Traffic and Parking Plan would be developed that would specify the locations of contractor parking. The plan would also include strategies for reducing contractor trips during peak hours of vehicular congestion.

Construction Effects to Bicycle and Pedestrian Connectivity

Construction of Alternative 2 would interfere with existing pedestrian and bicycle mobility. Construction would require temporary removal or blockage of the limited existing sidewalks that occur within the project site. This includes the sidewalk on the east side of SR-1/Lincoln Boulevard south of the Ballona Creek bridge. Also, pedestrians may be required to use temporary walkways/crossings that would alter the user experience.

The Ballona Creek Bike Path is addressed in more detail in Chapter 2.1.4, Parks and Recreational Facilities. In summary, Alternative 2 would require the temporary detour of the Ballona Creek Bike Path to a signalized crossing of SR-1/Lincoln Boulevard that would be located at Culver Boulevard, which is also detailed in **MM REC-2**. As specified in **MM REC-3**, affected portions of the Ballona Creek Bike Path would be rebuilt, realigned, and reprofiled to accommodate the new Ballona Creek Bridge, which would be a taller and wider structure with an alignment that is shifted to the east when compared to existing conditions. After construction of Alternative 2 is completed, the temporary detour would be removed and the new alignment beneath SR-1/Lincoln Boulevard Bridge would be opened for use.

Construction Effects to Transit Service

Alternative 2 would require the relocation of the bus stop located east of SR-1/Lincoln Boulevard just north of Jefferson Boulevard. Therefore, consistent with **MM TRANS-3**, the bus stop located north of Jefferson Boulevard would be relocated and upgraded to include seating, a trash can, and a shelter. During construction, a temporary bus stop would be provided at this location to avoid effects to transit access.

Also, during construction, existing transit service may experience additional temporary congestion and delay due to lane reductions in both directions of SR-1/Lincoln Boulevard, temporary detour of Culver Boulevard traffic, and along adjacent transit corridors due to the re-routing of existing traffic that uses Culver Boulevard that would travel along these alternate routes instead (i.e., Centinela Avenue, SR-90/Marina Expressway, Jefferson Boulevard, Short Avenue/Mindanao Way).

Construction Effects Related to Vehicle Miles Traveled

VMT would be generated during construction related to construction worker trips to/from the project site, material deliveries, water truck usages, and haul truck trips. Based on the analyses conducted for construction, air quality, greenhouse gas emissions, and energy, Alternative 2 would result in approximately 847,190 total VMT for the construction period. Details are provided in Table 2.1.10-1.

Table 2.1.10-1 – Construction Vehicle Miles Traveled Estimate

<table>
<tr><th>Phase</th><th>Soil Hauling</th><th>Worker Commute</th><th>Water Truck</th><th>Total VMT For Construction Period</th></tr>
<tr><td>Grubbing/Land Clearing</td><td>39,780</td><td>21,840</td><td>3,120</td><td>64,740</td></tr>
<tr><td>Grading/Excavation</td><td>140,850</td><td>363,080</td><td>12,520</td><td>516,450</td></tr>
<tr><td>Drainage/Utilities/Sub-Grade</td><td>0</td><td>208,240</td><td>10,960</td><td>219,200</td></tr>
<tr><td>Paving</td><td>0</td><td>42,120</td><td>4,680</td><td>46,800</td></tr>
<tr><td>Total</td><td>180,630</td><td>635,280</td><td>31,280</td><td>847,190</td></tr>
<tr><td>Total Alternative 2 Construction VMT Divided By Average Miles Driven Per Year By a California Driver[1, 2]</td><td colspan="3">(847,190/12,524)=67.6</td><td>VMT from construction of Alternative 2 would result in similar VMT as would be produced by 68 drivers in a single year.</td></tr>
<tr><td>Total Daily VMT for the Los Angeles-Long Beach-Anaheim, CA Urbanized Area Divided By Total VMT For Construction[2, 3]</td><td colspan="3">(847,190/235,404,000)*100 =0.36%</td><td>Total VMT from construction of Alternative 2 would add up to ~0.36 percent of VMT produced in one day in the Los Angeles-Long Beach-Anaheim, California Urbanized Area.</td></tr>
</table>

VMT: vehicle miles traveled
Source: Psomas 2023i.
Notes:
-1. Average miles driven per year for California is 12,524 (FHWA 2019).
-2. Comparative information in this table is provided for information purposes, to help readers contextualize VMT numbers.
-3. According to FHWA, daily vehicle miles of travel in the Los Angeles-Long Beach-Anaheim, California Urbanized Area was 235,404,000 in 2020 (FHWA 2021).

Increased VMT would also be generated temporarily during the first phase of construction related to longer commutes for some motorists who would need to detour around the project site on a less direct route than their typical commute directly along Culver Boulevard.

<u>Operational Effects</u>

Future Year Forecasts

Because Alternative 2 would provide additional lane capacity in the southbound direction on SR-1/Lincoln Boulevard, travel patterns within the project site would change as a result of implementation of Alternative 2. Accordingly, as part of the TAR, the roadway network in the City of Los Angeles' transportation model was adjusted to reflect the lane configuration changes associated with implementation of Alternative 2, and demand volumes were forecasted for the "Build" (Alternative 2) and "No Build" (Alternative 1) scenarios, for both 2030 and 2050.

The TAR determined that the existing AM and PM peak hour volume increases on SR-1/Lincoln Boulevard primarily occur in the non-peak direction. These increases indicate that SR-1/Lincoln Boulevard is essentially at capacity during the AM peak hour in the northbound direction and during the PM peak hour in the southbound direction, limiting the ability for future increases in traffic volumes without additional lane capacity. During the AM peak hour, larger volume increases occur along SR-1/Lincoln Boulevard in the southbound direction (as a percentage of existing volumes). During the PM peak hour, larger volume increases occur in the northbound direction. This pattern is also anticipated to occur for both 2030 and 2050.

Average Daily Traffic (ADT) Forecasts

As part of the TAR, average daily traffic (ADT) forecasts were developed for the segment of SR-1/Lincoln Boulevard (northbound and southbound) between Jefferson Boulevard and Fiji Way for the four future year scenarios that are shown in Table 2.1.10-2.

Table 2.1.10-2 – SR-1/Lincoln Boulevard Average Daily Traffic (ADT) Volumes

2017 PeMS ADT	Opening Year 2030 Alternative 1	Opening Year 2030 Alternative 2	Design Year 2050 Alternative 1	Design Year 2050 Alternative 2
60,000	67,200	69,900	78,700	81,800

PeMS: Caltrans Performance Measurement System; ADT: Average Daily Traffic.
Source: Fehr & Peers 2023a

Intersection Operations

In the Opening Year (2030) scenario, three of the four intersections would operate at LOS C or better under Alternative 2 in the PM peak hour. The following intersections would operate at LOS D, E, or F during one or more of the peak hours analyzed:

1. SR-1/Lincoln Boulevard & Fiji Way (LOS D during the AM peak hour, No Build and Build)

2. SR-1/Lincoln Boulevard & Culver Loop to SR-1/Lincoln Boulevard (LOS F during the AM peak hour, No Build and Build; and LOS D during the PM peak hour, No Build)
3. SR-1/Lincoln Boulevard & Jefferson Boulevard (LOS F during the AM peak hour, No Build and Build; LOS D during the PM peak hour, No Build and Build)

Decreases in delay related to Alternative, as at the intersection of SR-1/Lincoln Boulevard and Culver Loop to SR-1/Lincoln Boulevard, can be attributed to the additional southbound travel lane on SR-1/Lincoln Boulevard.

In the Design Year (2050), one of the four intersections would operate at LOS C or better during both the AM and PM peak hour for Alternative 2, as it would with Alternative 1. The following intersections would operate at LOS D, E, or F during one or more peak hour:

- SR-1/Lincoln Boulevard & Fiji Way (LOS D during the AM and PM peak hours, No Build and Build.)
- SR-1/Lincoln Boulevard & Culver Loop to SR-1/Lincoln Boulevard (LOS F during the AM peak hour, No Build and Build; LOS E during the PM peak hour, No Build and LOS D during the PM peak hour, Build)
- SR-1/Lincoln Boulevard & Jefferson Boulevard (LOS F during the AM peak hour, No Build and Build; LOS E during the PM peak hour, No Build and LOS F during the PM peak hour, Build)

Decreases in delay that would result from Alternative 2, as at the intersection of SR-1/Lincoln Boulevard and Culver Loop to SR-1/Lincoln Boulevard, can be attributed to the additional southbound travel lane on SR-1/Lincoln Boulevard under Alternative 2. The intersection of SR-1/Lincoln Boulevard and Culver Loop to SR-1/Lincoln Boulevard is estimated to operate at LOS E during the PM peak hour under Alternative 1, the No Build Alternative, and improve to LOS D during the PM peak hour under Alternative 2.

Queue Analysis

In the Opening Year (2030) scenario, queue lengths exceed storage capacities at the following approaches:

- SR-1/Lincoln Boulevard & Fiji Way – NBL (AM and PM peak hours, No Build and Build)
- SR-1/Lincoln Boulevard & Culver Loop to SR-1/Lincoln Boulevard – WBR (AM peak hour, No Build and Build; PM peak hour, No Build and Build)

- SR-1/Lincoln Boulevard & Culver Loop to SR-1/Lincoln Boulevard – WBL (PM peak hour, No Build and Build)
- SR-1/Lincoln Boulevard & Jefferson Boulevard – SBL (AM and PM peak hours, No Build and Build)
- SR-1/Lincoln Boulevard & Jefferson Boulevard – SBR (PM peak hour, Build only)
- SR-1/Lincoln Boulevard & Jefferson Boulevard – WBR (AM and PM peak hours, No Build and Build)
- SR-1/Lincoln Boulevard & Jefferson Boulevard – EBL (AM and PM peak hours, No Build and Build)

In the Design Year (2050), queue lengths are estimated to exceed storage capacities at the following approaches:

- SR-1/Lincoln Boulevard & Fiji Way – NBL (AM and PM peak hours, No Build and Build)
- SR-1/Lincoln Boulevard & Culver Loop to SR-1/Lincoln Boulevard – WBR (AM and PM peak hours, No Build and Build)
- SR-1/Lincoln Boulevard & Culver Loop to SR-1/Lincoln Boulevard – WBL (PM peak hour, No Build and Build)
- SR-1/Lincoln Boulevard & Jefferson Boulevard – SBL (AM and PM peak hours, No Build and Build)
- SR-1/Lincoln Boulevard & Jefferson Boulevard – SBR (PM peak hour, Build only)
- SR-1/Lincoln Boulevard & Jefferson Boulevard – WBR (AM and PM peak hours, No Build and Build)
- SR-1/Lincoln Boulevard & Jefferson Boulevard – EBL (AM and PM peak hours, No Build and Build)

VMT Analysis

Table 2.1.10-3 below provides VMT estimates for conditions with implementation of Alternative 1 and Alternative 2. The Los Angeles Travel Demand Model was used to estimate VMT by isolating all roadway segments within a 1.5-mile radius of the project site. The number of vehicles on each roadway segment was multiplied by the segment length within this boundary using the 2040 model, under Alternative 1 and Alternative 2 conditions. Straight line growth rates were developed between the 2016 base year model and the 2040 model results, and then applied to 2040 VMT results to determine estimates for Opening Year (2030) and Design Year (2050) Conditions. The VMT results for Alternative 2 reflect the additional southbound lane on SR-1/Lincoln Boulevard. As a result of the Project, VMT in the study area is estimated to decrease by approximately 1.7% compared to conditions under Alternative 1 in 2030, and by 4.7% in 2050 when compared to Alternative 1. The decrease in VMT is due to the elimination of the existing southbound bottleneck on the bridge, which would result in vehicles using alternate routes that, while time efficient, require traveling a greater distance. The 1.5-mile radius used for this analysis includes alternative routes across Ballona Creek, including SR-90 and Centinela Avenue, both east of the Project. VMT reductions as a result of Alternative 2 can therefore be attributed to the addition of southbound capacity, providing a more direct route for many trips.

Table 2.1.10-3 – Operational Vehicle Miles Traveled (VMT)

Year	Alternative 1	Alternative 2	Difference	Percent Difference
Opening Year (2030)	632,532	621,550	-10,982	-1.7%
Design Year (2050)	700,441	667,226	-33,215	-4.7%

Source: Fehr & Peers 2023a.

Traffic and VMT Conclusions

Alternative 2 would reconstruct and realign SR-1/Lincoln Boulevard within the project site so that it more effectively accommodates multiple modes of transportation, including the addition of sidewalks and bicycle lanes and area for future transit improvements. Alternative 2 would eliminate a southbound lane drop, which would improve traffic safety and allow for improved southbound vehicular operations and LOS at intersections in the project site. Operation of Alternative 2 would result in reductions in VMT when compared to the Alternative 1 due to drivers taking less circuitous routes around the project site.

Operational Transit Analysis

Alternative 2 would implement **MM TRANS-3**, which includes the relocation and upgrade of the one transit stop that is located east of SR-1/Lincoln Boulevard/just north of Jefferson Boulevard. The new transit shelter would include seating, a trash can, and a shelter.

Alternative 2 would improve southbound vehicular operations along SR-1/Lincoln Boulevard, which would improve southbound transit operations for existing transit routes that utilize SR-1/Lincoln Boulevard.

Alternative 2 would improve pedestrian and bicycle access to transit by adding sidewalks and bicycle lanes within the project site that would connect existing communities to existing and future transit stops.

Alternative 2 has been designed to be consistent with existing and future transit planned along SR-1/Lincoln Boulevard between Santa Monica and Los Angeles International Airport (LAX). Alternative 2 would make it more efficient to implement future transit along SR-1/Lincoln Boulevard within the project site by acquiring the right-of-way that would be needed for a future transit project and improving the curb-to-curb roadway so that it could be retrofitted in the future for transit. Future transit along SR-1/Lincoln Boulevard between Santa Monica in the north and LAX in the south has been contemplated for a long time. A Lincoln Bridge Feasibility Study was prepared for the City as part of the development of the Westside Mobility Plan (STV and Fehr & Peers 2013). The feasibility study took an initial look at ways of improving mobility along SR-1/Lincoln Boulevard while also minimizing environmental effects. The feasibility study included an evaluation of transit concepts that could potentially be implemented along SR-1/Lincoln Boulevard including BRT and LRT. The 130-foot-wide SR-1/Lincoln Boulevard Bridge would provide space for future transit as planned for in the feasibility study and as assumed in the Westside Mobility Plan overall.

The 2024 RTP/SCS includes a project listing for a future BRT project along SR-1/Lincoln Boulevard identified as RTP ID S1160348. The 2024 RTP/SCS also includes a future LRT project along SR-1/Lincoln Boulevard identified as RTP ID S1160349. Both of these projects are listed as “unconstrained projects” within the 2024 RTP/SCS. The BRT project would include a center running BRT on Lincoln Boulevard from Santa Monica Boulevard to LAX. That project would also implement additional transit facilities for transit enhanced network (SCAG 2024a). The LRT project would include the potential future upgrade to rail transit in the long term from BRT (SCAG 2024a). BRT has also been listed in the 2024 RTP/SCS as a “financially constrained project”, identified as RTP ID 224T011. The Project’s alternatives have been designed to include the future cross-section needed to accommodate these transit facilities, based on current information available. This would allow for the roadway to be modified in the future to accommodate improved transit such as BRT or LRT modes. This would allow for these future projects to be implemented more efficiently, while reducing the amount of impacts that occur to the BWER.

Future transit along SR-1/Lincoln boulevard is also programmed as part of the LA Metro 2020 Long Range Transportation Plan (LRTP), which includes a future BRT project on SR-1/Lincoln Boulevard as a planned “Major Transit Project/Transit Investment”. That separate project is described in the LRTP as the “Lincoln Boulevard Transit Corridor” and it would consist of an approximate 10-mile BRT or LRT line that would operate along a north to south route on SR-1/Lincoln Boulevard between the Expo Line's Downtown Santa Monica Station and LAX. According to the LRTP, that project is anticipated to be completed around 2047.

There are further indications that transit improvements along SR-1/Lincoln Boulevard are likely such as the Lincoln Fast Forward project along SR-1/Lincoln Boulevard. Lincoln Fast Forward is located approximately 1.5 miles north of the project site along SR-1/Lincoln Boulevard. That project would provide a rush hour bus-only lane between Venice Boulevard and Commonwealth Avenue. This builds upon the stretch of SR-1/Lincoln Boulevard between Ozone Street and the I-10 Freeway within the City of Santa Monica that already has bus-only lanes.

Also, the 2024 RTP/SCS contains an "unconstrained project" that is identified as RTP ID S1160361, which would consist of a Loyola Circulator that would provide circulator service to connect to/from Loyola Marymount University and future BRT/LRT stations planning on Lincoln Boulevard (SCAG 2024a).

Alternative 2 would help to facilitate future planned transit within the project site by developing a roadway that has enough width, an appropriate slope, and structures with adequate vertical clearances so that the roadway within the project site can be easily retrofitted when LA Metro or others are ready to implement these improvements.

Operational Bicycle and Pedestrian Connectivity Analysis:

Alternative 2 would include connections to existing bicycle and pedestrian facilities within the project site, as well as connections to facilities that are proposed as part of the Ballona Wetlands Restoration Project. More information is provided in Chapters 2.1.4, Parks and Recreation, and 2.1.10, Transportation.

Although SR-1/Lincoln Boulevard serves as a critical north-south connection on the Westside, existing pedestrian facilities are discontinuous north and south of the bridge with no sidewalks provided on either side of the bridge. SR-1/Lincoln Boulevard also lacks bicycle facilities across the bridge, despite its connection to the east-west Ballona Creek Bicycle Path that runs just under the SR-1/Lincoln Boulevard Bridge parallel to Ballona Creek. This lack of connectivity and protection along a high-volume, high-speed road not only discourages active transportation, but also raises safety concerns for bicyclists and pedestrians attempting to access nearby facilities and destinations. The areas of the project site that would receive sidewalks that do not currently have sidewalks are shown in Figure 2.1.10-5.

Alternative 2 would improve connectivity and accessibility to the coastal areas of the Westside for all modes of travel. Proposed improvements on the SR-1/Lincoln Boulevard Bridge include

Bicycle and Pedestrian Improvement Areas

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Psomas; Aerial: Esri, Maxar 2022

Figure 2.1.10-5

widening of the bridge to accommodate protected bicycle lanes and sidewalks on both sides of the bridge. These bicycle and pedestrian improvements would extend between Jefferson Boulevard and Fiji Way. Adding a separated bicycle lane along this segment would create a complete bicycle network, on which cyclists could safely and conveniently travel to and through the area.

Class IV protected bicycle lanes on SR-1/Lincoln Boulevard would provide a connection to the Ballona Creek Bicycle Path as well as existing bicycle facilities south of Jefferson Boulevard and on Fiji Way. Additionally, the proposed improvements would better connect cyclists and pedestrians to the retail and residential developments south of Ballona Creek in Playa Vista off of Jefferson Boulevard. Nearby educational institutions, such as the Westside Neighborhood School, Playa Vista Elementary School, Loyola Marymount University, and Playa Vista Public Library, would be more accessible via active transportation modes.

With average daily traffic exceeding 60,000 vehicles and a speed limit of 45 miles per hour, industry standards recommend separated bicycle lanes. Studies have found that separated bicycle lanes increase cycling and reduce vehicle traffic (FHWA 2015a). Furthermore, separated bicycle lanes are more feasible along routes without parking on the shoulder, few transit stops and limited intersections, all of which are characteristics of this segment of SR-1/Lincoln Boulevard (Caltrans 2015a).

Demand for bicycle and pedestrian facilities was noted during traffic counts conducted as part of the Project’s Transportation Analysis Report (Fehr & Peers 2020a), including 80 cyclists and 81 pedestrians in the AM peak hour within the study area. During the PM peak hour, 36 cyclists and 66 pedestrians were recorded. The proposed separated bicycle facility and sidewalks would promote the safety of current as well as future cyclists and pedestrians.

With implementation of multimodal improvements along the SR-1/Lincoln Boulevard Bridge, as proposed by Alternative 2, bicycle and pedestrian convenience and safety would be improved. The protected bicycle lanes would create a more robust bicycle network in the area improving the surrounding communities’ connectivity to Ballona Creek Bicycle Path and other nearby retail, residential, and academic destinations. The safety risks of cyclists and pedestrians are expected to decrease as exposure to high volume and fast-moving vehicular traffic would be minimized due to separated facilities along SR-1/Lincoln Boulevard Bridge.

Consistency With Regional Transportation Plans:

As described in more detail within Chapter 2.1.2, Consistency with Plans and Programs, Alternative 2 would be consistent with the FTIP, RTP/SCS, the City of Los Angeles Westside

Mobility Plan, the Los Angeles Metro 2020 Long Range Transportation Plan, and other transportation plans and policies.

Alternative 2 has been designed to accommodate future transit projects, as the 130-foot-wide minimum cross-section of the roadway can be re-striped in the future to accommodate center-running bus rapid transit (BRT) or light rail transit (LRT) down the middle of the roadway.

Consistency With Ballona Wetlands Ecological Reserve Planned Bicycle/Pedestrian Network: As described in more detail in Chapter 2.1.4, Parks and Recreational Facilities, Alternative 2 has been designed to stand alone, but to also be fully compatible with the public access improvements that are planned within the BWER. A map showing connectivity between the two projects is provided as Figure 2.1.4-5

<u>Cumulative Effects</u>

Alternative 2 would add a southbound lane within a portion of the project site to eliminate a southbound lane drop, where three lanes narrow to two temporarily. Alternative 2 would also add turning lanes and make other improvements that would collectively result in safer and less congested conditions within the project site, which would benefit existing and future planned growth including the cumulative projects contained in Table 2-1.

Alternative 2 has been designed to provide several connections to public trails that are shown in CDFW's Ballona Wetlands Restoration Project, which is a cumulative project. Collectively, these projects would improve the pedestrian and bicycle experience in and near the project site.

Alternative 2 has been designed to be consistent with LA Metro's planned transit improvements for SR-1/Lincoln Boulevard, which are considered cumulative projects. Collectively, Alternative 2 and future transit projects along Lincoln Boulevard would improve conditions for transit.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard when compared to Alternative 2. This parcel is an undeveloped area that is designated as an open space land use. These areas are not utilized currently for any transportation-related purposes, nor are they planned to be used for trails in the Ballona Wetlands Restoration Plan. As such, the avoidance of temporary construction easements within these areas of the BWER that would occur under Alternative 2A would not avoid, minimize, or increase effects related to transportation. Otherwise, the construction effects of Alternative 2A related to transportation would be the same as for Alternative 2.

<u>Operational Effects</u>

Alternative 2A would construct a permanent retaining wall that would provide a more defined edge between the BWER, an open space land use, and the west side of SR-1/Lincoln Boulevard north of Culver Boulevard. No right-of-way acquisition would be required for Alternative 2A beyond what is required for Alternative 2. Alternative 2A would provide a more defined buffer between future users within the BWER and SR-1/Lincoln Boulevard. The retaining wall would provide benefits to future users of areas in the BWER west of this retaining wall, which would have greater physical separation from the roadway. This would lead to increased perceived safety for users in this area, and potentially less roadway noise for these areas that would result in a more enjoyable area to walk; however, these effects would be minor. The retaining wall proposed under Alternative 2A would not obstruct any transportation facilities such as roads, trails, or bicycle paths. Otherwise, Alternative 2A would have the same effects related to transportation as Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2A, cumulative effects related to transportation modes would be similar to cumulative effects that would result from Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

<u>Construction Effects</u>

Alternative 2B would require fewer temporary construction easements from two parcels when compared to Alternative 2. This parcel is an undeveloped area that is designated as an open space land use and which contains a drainage ditch. These areas are not utilized currently for any transportation-related purposes, nor are they planned to be used for trails in the Ballona Wetlands Restoration Plan. As such, the avoidance of temporary construction easements within these areas of the BWER that would occur under Alternative 2B would not avoid, minimize, or increase effects related to transportation. Otherwise, the construction effects of Alternative 2B related to transportation would be the same as for Alternative 2.

<u>Operational Effects</u>

Alternative 2B would avoid approximately right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison from APN 4211-007-900, which is Los Angeles County Flood Control District-owned land. Both areas that would be acquired contain portions of

Fiji Ditch which is a drainage facility. New cantilevered sidewalks would be built at the same locations as the standard sidewalks that would be built under Alternative 2. These sidewalks would serve the same purpose, but would be built in a different way. As such, Alternative 2B would not avoid, minimize, or increase effects related to transportation. Otherwise, Alternative 2B would have the same effects related to transportation as Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2B, cumulative effects related to transportation including those regarding traffic, bicycle, pedestrian, and transit modes would be similar to cumulative effects that would result from Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2C would increase temporary construction easements within two parcels that are a part of the BWER and designated as open space land uses. These temporary construction easement areas are not utilized currently for any transportation-related purposes as these areas are not open to the public, nor are they planned to be used for trails in the Ballona Wetlands Restoration Plan. These areas do provide connectivity or are nearby future loop trails on both the east and west sides of SR-1/Lincoln Boulevard north of the existing Culver Boulevard bridge. Otherwise, the construction effects of Alternative 2C related to transportation would be the same as for Alternative 2.

<u>Operational Effects</u>

Alternative 2C would increase partial right-of-way acquisition within two parcels that are a part of the BWER and designated as open space land uses. These partial right-of-way acquisition areas are not utilized currently for any transportation-related purposes as these areas are not open to the public, nor are they planned to be used for trails in the Ballona Wetlands Restoration Plan. These areas do provide connectivity to planned future trails that would be built by CDFW on both the east and west sides of SR-1/Lincoln Boulevard north of the existing Culver Boulevard bridge. The wider bridge that would be built under Alternative 2C would provide enhanced bicycle and pedestrian connectivity across SR-1/Lincoln Boulevard when compared to Alternative 2. This would improve connections within the BWER itself — specifically between Area A and North Area C of the BWER, which are the areas of the BWER that are on either side of SR-1/Lincoln Boulevard north of Culver Boulevard. The wider bridge under Alternative 2C would also benefit bicycle and pedestrian connections between local communities and to the coast. Alternative 2 would provide a similar bicycle and pedestrian connection to an overcrossing that is planned by CDFW just north of this location. Otherwise, Alternative 2C would have the same effects related to transportation as Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to transportation including those regarding traffic, bicycle, pedestrian, and transit modes would be similar to cumulative effects that would result from Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER and an open space land use. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900 so no additional temporary construction easements would be needed to implement Alternative 2D. The additional temporary work areas required under Alternative 2D are not utilized currently for any transportation-related purposes as these areas are not open to the public, nor are they planned to be used for trails in the Ballona Wetlands Restoration Plan. Otherwise, the construction effects of Alternative 2C related to transportation would be the same as for Alternative 2.

Operational Effects

Alternative 2D would increase partial right-of-way acquisition within a parcel that is part of the BWER and designated as an open space land use. This partial right-of-way acquisition area is not utilized currently for any transportation-related purposes as this area is not open to the public, nor is it planned to be used for trails in the Ballona Wetlands Restoration Plan. The wider bridge that would be built under Alternative 2C would provide enhanced bicycle and pedestrian connectivity across SR-1/Lincoln Boulevard when compared to Alternative 2. This would improve connections within the BWER itself—specifically between Area A and North Area C of the BWER, which are the areas of the BWER that are on either side of SR-1/Lincoln Boulevard north of Culver Boulevard. The wider bridge under Alternative 2C would also benefit bicycle and pedestrian connections between local communities and to the coast. Alternative 2 would provide a similar bicycle and pedestrian connection to an overcrossing that is planned by CDFW just north of this location. Otherwise, Alternative 2C would have the same effects related to transportation as Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to transportation including those regarding traffic, bicycle, pedestrian, and transit modes would be similar to cumulative effects that would result from Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM TRANS-**1: During final design, the City will prepare a coordinated Transportation Management Plan (TMP) for the Project to minimize effects to local vehicular traffic, pedestrians, and bicyclists. The TMP shall be implemented by the contractor during construction. The TMP shall be consistent with City and Caltrans policies and procedures. At a minimum, the TMP will include the following:
    - A map showing the locations of temporary detours and signage to facilitate local traffic patterns and through traffic requirements.
    - Requirements for the contractor to conduct a public awareness campaign in advance of and during construction in coordination with the City and Caltrans Public Information Offices.
    - Requirements for the use of real-time communications with motorists such as changeable message signs to alert motorists of upcoming construction activities, detours, and travel conditions, as applicable.
    - Requirements that Comprehensive Stage Construction and Traffic Handling Plans be prepared and submitted to the City and Caltrans for review and approval.
    - Requirements to maintain a minimum of two lanes in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted. Special measures for advance outreach to public service providers and to the local community shall be specified in the TMP to minimize effects to emergency response times and to the community.
    - Measures to facilitate coordination with transit providers to ensure that bus routes using SR-1/Lincoln Boulevard and Culver Boulevard are not adversely affected during construction.
    - Requirements to provide 10 days of notice to emergency service providers, local transit providers, and local school districts of any construction activity that would

hinder emergency vehicle response time, bus travel routes, or access to/from schools.

- Measures to ensure the provision of safe travel for pedestrians and bicyclists during construction, including detouring and maintaining operation of the Ballona Creek Bike Path. A sidewalk and unobstructed pedestrian access would be provided at all times during construction on at least one side of the roadway between Jefferson Boulevard in the south and the Ballona Creek Bike Path in the north.

- **MM TRANS-2**: The contractor would prepare and implement a Contractor Traffic and Parking Plan to avoid congestion and parking effects during construction. The plan would be submitted to the City and Caltrans for review and approval as an appendix to the TMP. At a minimum, the Contractor Traffic and Parking Plan would:
    - Specify the number of construction workers and parking spaces needed for each phase of construction.
    - Specify contractor parking locations for each phase of construction.
    - Specify the locations of materials staging areas during each phase of construction and the paths of travel for haul trucks and other construction traffic once within the project site.
    - Identify strategies for reducing contractor trips during peak hours of vehicular congestion such as providing incentives for carpooling.

- **MM TRANS-3**: The bus stop located north of Jefferson Boulevard would be relocated and upgraded to include seating, a trash can, and a shelter. During construction, a temporary bus stop would be provided.

2.1.11 Visual/Aesthetics

Information in this chapter is derived in part from the following technical study:

- Lynn Capouya, Inc. 2019 (December 4). Visual Impact Assessment, State Route 1 (SR-1/Lincoln Boulevard) Multimodal Improvement Project. Irvine, CA: Lynn Capouya, Inc. Provided as Appendix J of this Draft EIR/EA.

Regulatory Setting

Federal

<u>National Environmental Policy Act</u>

The National Environmental Policy Act (NEPA) of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the FHWA, in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

<u>Code of Federal Regulations</u>

Part 325 of Title 33 of the Code of Federal Regulations, regarding the processing of Department of the Army permits, states: "The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources…including the cumulative effects thereof; among those are…aesthetics…" (33 Code of Federal Regulations §325.3[c]).

State

<u>California Environmental Quality Act</u>

CEQA establishes that it is the policy of the State to take all action necessary to provide the people of the State "with…enjoyment of *aesthetic*, natural, scenic and historic environmental qualities" (CA Public Resources Code Section 21001[b]).

California Streets and Highways Code

California Streets and Highways Code Section 92.3 directs Caltrans to use drought resistant landscaping and recycled water when feasible, and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

California Scenic Highway Program

The California Scenic Highway Program is maintained by Caltrans and identifies scenic highway corridors for preservation and protection of aesthetic value. Caltrans maintains a list of routes that are “adopted” and “eligible.” There are three adopted scenic highways in Los Angeles County, all of which are more than 20 miles northeast of the project site. Eligible routes are those that are proposed for further study and may be officially designated when a local jurisdiction adopts a scenic corridor protection program and applies to Caltrans for scenic highway approval. State Route 1 (SR-1, Pacific Coast Highway/Lincoln Boulevard), between State Route 187 (Venice Boulevard) and Interstate 10 (U.S. 10), which begins about 1.5 miles north of the project site and travels farther north, is listed as eligible for designation as a state scenic highway; however, no views of the project site are available from this stretch of SR-1/Lincoln Boulevard due to intervening development in Marina del Rey (Caltrans 2023b).

California Coastal Act

The California Coastal Commission has regulatory authority related to aesthetics pursuant to the sections of the California Coastal Act of 1976 that are discussed below. The Marina del Rey Local Coastal Program (LCP) is a component of the Los Angeles County Local Coastal Program, certified in February 2012 by the California Coastal Commission. The LCP applies to one parcel within the project site, at the southwest corner of Fiji Way and SR-1/Lincoln Boulevard. The LCP lists important views proposed for protection. There are no views listed for protection in the LCP to or from the Ballona Reserve, or to/from the project site.

- Section 30116 – Sensitive Coastal Resource Areas: This section of the Coastal Act relates to the definition of sensitive coastal resource areas. Pursuant to the Coastal Act, "Sensitive coastal resource areas" means those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity. "Sensitive coastal resource areas" include the following:
    - (a) Special marine and land habitat areas, wetlands, lagoons, and estuaries as mapped and designated in Part 4 of the coastal plan.
    - (b) Areas possessing significant recreational value.
    - (c) Highly scenic areas.

(d) Archaeological sites referenced in the California Coastline and Recreation Plan or as designated by the State Historic Preservation Officer.

(e) Special communities or neighborhoods which are significant visitor destination areas.

(f) Areas that provide existing coastal housing or recreational opportunities for low- and moderate-income persons.

(g) Areas where divisions of land could substantially impair or restrict coastal access.

As noted above, highly scenic areas are considered to be Sensitive Coastal Resources Areas by the California Coastal Commission.

- Section 30251 Scenic and Visual Qualities: Under Section 30251 of the Coastal Act, the scenic and visual qualities of coastal areas are considered and protected as a resource of public importance. Under this section, permitted development would be required to be sited and designed to protect views to and along the Ballona Wetlands Ecological Reserve (BWER) and Ballona Creek, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

Local

City of Los Angeles General Plan

Scenic protection provisions are contained in the City of Los Angeles General Plan community plans. Policies in the General Plan that are intended to protect views apply to the development of private property. The Marina del Rey Community Plan includes Policy e.3, which proposes that parts of Fiji Way and SR-1/Lincoln Boulevard be designated as a scenic byway under Section B.2.2 in the City's General Plan; however, this has not occurred to date.

Los Angeles County General Plan

Policies related to the protection of visual resources in the County's General Plan include the following:

- Policy C/NR 13.2: Protect ridgelines from incompatible development that diminishes their scenic value.
- Policy C/NR 13.4: Encourage developments to be designed to create a consistent visual relationship with the natural terrain and vegetation.

In addition, the Scenic Highways Element of the County's General Plan recommends SR-1/Lincoln Boulevard, Jefferson Boulevard, and Culver Boulevard as first priority routes for further study to be designated as scenic routes. First priority routes are subject to corridor studies in the future with the intention of ultimately being officially designated as a scenic highway under the Caltrans State Scenic Highways program. None of these stretches of roadway are currently designated as State scenic highways.

Environmental Setting

Study Area

The landscape within the project site is characterized by man-made development consisting of typical roadway infrastructure (e.g., roadways, ramps, interchange, overpass bridges, commercial, and residential buildings); the Ballona Creek Channel; and vegetation along both sides of the roadway, at the ramps, at the interchange, and in the adjacent BWER. In addition to these open space uses, other land uses within the project site include commercial and multi-family residential uses.

A detailed discussion of existing and future land uses, along with existing site photographs are provided in Chapter 2.1.1, Existing and Future Land Use.

Scenic Vistas

Scenic views or vistas are defined in the City of Los Angeles General Plan Conservation Element as a panoramic public view to natural features, including views of the ocean, striking or unusual natural terrain, or unique urban or historic features, also referred to as scenic resources. Public access to views of scenic resources is from parklands, privately and publicly owned sites, and public rights-of-way.

The County of Los Angeles General Plan Conservation and Natural Resources Element defines a scenic viewshed as a view which provides a scenic vista from a given location, such as a highway, a park, a hiking trail, river/waterway, or even from a particular neighborhood. The boundaries of a viewshed are defined by the field of view to the nearest ridgeline. Scenic vistas are not defined by the County, but coastline and mountain/ridgeline views are specifically noted as having scenic value. Scenic viewsheds vary by location and community and can include ridgelines, unique rock outcroppings, waterfalls, ocean views or various other unusual or scenic landforms.

The project site is surrounded by and within the foreground of scenic vistas including views of the BWER, the Santa Monica Mountains to the north, the San Gabriel Mountains to the northeast, and the Westchester bluffs topped with development to the southeast. Views of these scenic vistas would be altered by Alternative 2.

Lighting Environment

There is existing lighting within the project site, including streetlights along both sides of SR-1/Lincoln Boulevard, along the Culver Boulevard ramp, and along the south side of Culver Boulevard. There is also existing ambient lighting nearby associated with commercial and residential properties adjacent to the project site. There is less existing street lighting within the project site between Fiji Ditch in the north and Culver Boulevard bridge in the south. The entire project site is subject to vehicle headlights at night.

Overhead Utilities

In existing conditions, there are overhead power lines on both sides of SR-1/Lincoln Boulevard north of Ballona Creek. There are also existing overhead power lines along the south side of Culver Boulevard within the project site.

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

No temporary removal of vegetation would occur under Alternative 1. Also, no construction staging areas would be established and no staging, storage, usage, and views of construction equipment and materials would be visible. Therefore, Alternative 1 would not result in substantial adverse visual effects during construction.

<u>Operational Effects</u>

Alternative 1 would not change the profile of SR-1/Lincoln Boulevard, would not remove the two existing bridges within the project site, and would not reconstruct the SR-1/Lincoln Boulevard Bridge over Ballona Creek or the Culver Boulevard overpass over SR-1/Lincoln Boulevard. Also, Alternative 1 would not construct a noise barrier. Therefore, aesthetics and views would not be affected under this alternative.

<u>Cumulative Effects</u>

Alternative 1 would have no effects to the existing visual environment; therefore, Alternative 1 has no potential to contribute to cumulative impacts related to this resource topic.

Alternative 2 – Base Alternative

Construction Effects

Construction would result in several effects to aesthetics which are described below. To begin, some limited night lighting would be needed during construction of Alternative 2. Night lighting would generally not be required since construction activities would occur between 6 A.M. and 9 P.M. in accordance with the City's and County's noise ordinances. However, limited nighttime lighting may be needed during construction within the project site. **MM VIS-1** would be implemented as part of Alternative 2, which requires that construction night lighting be limited to the maximum extent feasible and that any temporary night lighting be hooded and downcast and that direct illumination be limited to active portions of the project site only.

During construction, neighbors, bike path users, and users of SR-1/Lincoln Boulevard and Culver Boulevard would experience a temporary degradation of visual quality through disturbed views that would consist of construction activities, construction vehicles/machinery, demolition activities, stockpiles, staging areas, and temporarily disturbed surfaces where vegetation would be removed. As required by **MM VIS-2,** the construction staging area south of Ballona Creek and west of SR-1/Lincoln Boulevard will be enclosed with an 8-foot-tall or taller chain-link fence with privacy windscreen or similar materials. The contractor would ensure the maintenance of the screening material at all times and shall remove and replace sections of screening material that experience graffiti, wind, or other damage. Also, **MM VIS-2** requires that the contractor shall provide daily visual inspections to ensure the immediate surroundings of construction staging areas are free from construction-related clutter and to maintain the areas in a clean and orderly manner throughout the construction period. With implementation of this measure, temporary effects to views from neighbors, commuters, and users of the bike path would be minimized.

During construction, vegetation would be removed which would alter views of the project site and to the adjacent BWER. All existing landscaped areas that would be temporarily disturbed by construction of Alternative 2 would receive replacement landscaping. All new landscaping within temporary construction easement areas shall receive an appropriate native, non-invasive plant palette in consultation with each property owner in accordance with **MM VIS-3**. All proposed landscaping would conform to the latest Model Water Efficient Landscape Ordinance and applicable local ordinances.

Operational Effects

The project site's visual resources are defined below and are described in terms of the visual character and visual quality that occurs in the project site. Resource change is assessed by evaluating the visual character and the visual quality of the project site before and after construction of the Alternative 2.

Visual Character

Visual character includes attributes such as form, line, color, texture, and is used to describe, not evaluate; that is these attributes are neither considered good nor bad. However, a change in visual character can be evaluated when it is compared with the viewer response to that change. Changes in visual character can be identified by how visually compatible a proposed project would be with the existing condition by using visual character attributes as an indicator. For evaluation of Alternative 2, the following attributes were considered: Form (visual mass or shape), Line (edges or linear definition), Color (reflective brightness and hue), and Texture (surface coarseness).

As described in further detail in the Project's Visual Impact Assessment, the visual character of Alternative 2 would be mostly compatible with the existing visual character of the project site.

Form

The existing visual form in the project site consists of generally flat topography and surrounding environment, which consists of vegetated open spaces, existing roadway features, and residential and commercial development. As a result, visual mass within the project site is dominated by vegetation, pavement and bridges, with buildings as secondary objects contributing to the uniformity of the visual character of Alternative 2. Alternative 2 would result in a slight increase in visual mass through the addition of pavement and reprofiling of the roadway, but overall Alterative 2 would have similar characteristics as the existing condition.

Line

The existing alignment of SR-1/Lincoln Boulevard is mostly linear from a bird's eye view and the same is true from a motorist's perspective at street level. The only occurrence where SR-1/Lincoln Boulevard turns slightly curvilinear is when it crosses under the Culver Boulevard Bridge. The buildings, other roadway components, trees that project perpendicularly from the surface, and the dividing line of vegetated open lands are also linear and bound by the edges of the roadway. In terms of how the proposed Alternative 2 improvements would interface with the existing visual character of line is concerned, the horizontal alignment would remain fairly consistent with the existing corridor's alignment, even where widening, adjustments to ramp alignments and raised elements would occur. With Alternative 2, contrasts with the built environment would remain low, since the existing man-made structures, such as buildings, bridges, ramps, and even the vegetation from the existing landscaping, are mostly in a linear, perpendicular harmony with SR-1/Lincoln Boulevard and would remain so under Alternative 2.

Color

The existing colors that occur within the project site are consistent throughout the project site and, with Alternative 2 would present the same experience to all viewer groups. Since the project site is situated in a generally urbanized environment, viewer groups would be expected to undergo the same exposure to artificial light at night. During the day, glare from reflective surfaces, such as windows from buildings and vehicles, is expected and intensifies when the direction and angle of sunlight changes, especially in hot summer months. The temporary removal of existing vegetation during Alternative 2 construction and relocation of existing street lighting would create a new source of light and glare, but should diminish in time as replacement planting becomes established. Increased pavement surfaces would create the same level of glare because the same material and colors would be used to match the existing pavement. Colors that emanate from existing vegetation are predominately light to dark green and would remain the same after the proposed improvements are constructed. Alternative 2 would not introduce any elements featuring colors or materials that are uniquely or substantially different than the existing condition. The existing textural pattern of the project site has typical characteristics of an urban environment. These textures include the following: concrete and vegetation; the surface texture of building facades and bridge structures; the coarseness or smoothness of the road; and foliage from trees, shrubs, and groundcovers. Of all the visual character attributes discussed, texture is expected to be altered the most, since the proposed improvements under Alternative 2 would introduce more hardened surface and remove some of the existing vegetation adjacent to the roadways and ramps. Viewer groups would be exposed to more pavement, but are not expected to be substantially impacted, based on the similarities between the proposed changes and the existing condition.

Texture

As with most roadway improvement projects, vegetation removal is expected to occur the most at locations where SR-1/Lincoln Boulevard would be widened and ramps realigned and at temporary staging, storage, and other work areas. The removal of existing vegetation adjacent to the roadway, where necessary, would contribute to changes in the visual character attributes discussed above. As a result of Alternative 2, alterations to the existing project site would remain fairly consistent with the existing corridor’s visual character due to the continuity of form, line, color, and textural pattern that are typical in this urbanized setting.

Visual Quality

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the project site.

Public attitudes validate the assessed level of quality and predict how changes to the project site can affect these attitudes. This process helps identify specific methods for addressing each visual impact that may occur as a result of Alternative 2.

The three criteria for evaluating visual quality are defined as: Vividness (the extent to which the landscape is memorable and is associated with distinctive, contrasting, and diverse visual elements), Intactness (the integrity of visual features in the landscape and the extent to which the existing landscape is free from non-typical visual intrusions), and Unity (the extent to which all visual elements combine to form a coherent, harmonious visual pattern). The visual quality of the existing corridor will be slightly altered by Alternative 2 based on the information provided below.

The existing project site consists of relatively flat topography and a consistent urban atmosphere. The immediate view or perspective from the road is typically oriented to the foreground or areas directly adjacent to the roadway, consisting mostly of vegetated open spaces, structures (buildings/bridges), typical roadside landscaping, and the channeled Ballona Creek. The project site's vividness is limited due to the lack of unique, memorable features common to scenic corridors. Undeveloped vegetated areas within the BWER, vegetated buffer zone between residential and commercial developments and the roadway, and man-made structures dominate the visual elements of the project site. In terms of unity and intactness, the existing landform and land cover are both consistent throughout with few uncommon features present.

With implementation of Alternative 2, vividness would remain mostly the same since the elements being proposed are typical in the project site. Intactness would be slightly impacted due to the widened and realigned ramps and roadways with additional sidewalks and bike lanes, and raised bridge profiles. These encroachments would cut into the existing ground plane and result in removal of some vegetation. Unity is manifested through similarities in land cover, dominated by vegetated open spaces that span the corridor in its entirety and man-made development. Since the proposed alterations to the project site would result in similar visual elements with the current condition, impacts to the existing visual quality's unity is not anticipated to be considerable, and no new features uncommon to the site would be added. The implementation of the proposed improvements would generate expanded visibility of the "built" characteristics of the environment and would only contribute to the experience described above.

Resource change (changes to visual resources as measured by changes in visual character and visual quality) would be moderate. The proposed improvements would consist of realigning the roadway and on and off ramps, widening and raising the bridges, and installation of landscaping, street lighting, and signage to a built environment causing a change in visual mass through increased concrete and texture change from the removal of established vegetation. Changes to visual character in terms of line and color would remain low, due to similarities between the existing and proposed components' linear definition and reflective brightness that can be observed from the edges of structures and roadway alignment and reflection from the same components. Visual quality intactness would be impacted by intrusions from man-made components into the existing landscape, most notably from the new travel lane, widened/raised bridges, and roadway realignment. Changes to vividness and unity would remain low due to the lack of naturally occurring features. Although the improvements would be generally compatible with the existing corridor, implementation of these improvements would result in a moderate-low level of resource change, due to slight changes in visual character and visual quality.

Viewers and Viewer Response

Key views that would be affected by Alternative 2 include those of:

- Roadway neighbors consisting of residents living in the Fountain Park Apartment Homes are viewers who would have the longest duration of viewer exposure to any visual changes caused by the proposed roadway improvements, due to their constant presence in the area. These users are stationary and, in a position, to view the changes in close proximity to their surrounding and would typically have a higher concern for the impacts caused to their views, based on the severity of changes. They observe the visual environment on a daily basis and for extended periods of time. Factors that limit their exposure to the proposed improvements include the landscape screening that acts as a buffer zone. Viewer exposure for this user group is moderate.
- Employees in Electronic Arts and LA Fitness commercial businesses and Playa Medical Plaza are not expected to be substantially impacted by the proposed roadway improvements, due to the time they spend indoors and their work activities. This neighbor group would be exposed mostly to the changes only when they travel to and from work, but in some cases, may be exposed to the proposed improvements through the windows in their buildings. Viewer exposure for this user group is low.
- Roadway users consisting of commercial drivers, daily commuters, and tourists would have increased viewer exposure to structural changes to bridges, addition of hardened surfaces, and reduction in vegetation when their travel speeds are reduced by traffic. Without traffic, roadway users would travel at constant driving speeds and focus their attention on their driving with shorter views of the built environment. The proposed improvements would not differ substantially from the existing condition; therefore,

motorists are not expected to drive through a completely different experience. Viewer exposure for this user group is low.

- Recreational users, such as bicyclists and people who use the Ballona Creek Bike Path, are particularly more exposed to the environment since they travel at a much slower pace than motorists and experience their surroundings for longer durations. This viewer group have views for longer periods of time than roadway users but shorter than roadway neighbors. Viewer exposure for this group is therefore considerate moderate-low.

The viewer sensitivity for each type of viewer considered for Alternative 2 is as follows:

- Neighbors and employees in close proximity to the proposed roadway improvements would have the highest viewer sensitivity to the changes in existing visual resources, due to their familiarity with the area. This user group would be less preoccupied and be more engaged to see the proposed roadway improvements from their locations during construction and after completion. The improvements would be closer to their buildings due to the reduced landscape buffer zone. The majority would still be sensitive to the additions caused by the improvements, even though no major building structures are being removed and Alternative 2 blends with the existing built environment. Viewer sensitivity is moderate.
- Roadway users would have low viewer sensitivity, since they focus their attention on the road, traffic, and getting from one place to another. Couriers, for example, are preoccupied with important priorities that include timely arrival of deliveries, condition of the goods being delivered, and their safety, so they are more engaged with their planned destinations. Due to these priorities, they pay minimal attention to the surrounding environment, regardless of the range of views. In some cases where traffic congestion contributes to the length of time a view is observed, viewer sensitivity would remain the same since motorists have become familiarized with the built environment. This viewer group would experience the project site as one common view of the built environment and may not concentrate exclusively on specific improvements of the roadway. Even tourists traveling for pleasure are expected to have the same viewer sensitivity since the result of the proposed improvements would be consistent with the existing.
- Recreational users are anticipated to have low viewer sensitivity due to the types of activities in which they are involved. Bicyclists, for example, take regular routine trips, and when this occurs, their awareness become less specific and they become less sensitive to the changes. Trail users are expected to be more engaged in observing their surroundings since their path is predetermined. Their awareness is more concentrated and

their appreciation for aesthetics is greater. Viewer sensitivity for this group still remains low since the proposed improvements are not expected to cause extreme changes to their viewing experience.

It is anticipated that the average response for neighbors would be moderate-low and roadway and recreational users would be low.

<u>Conclusions on Operational Aesthetic Effects</u>

Visual Impact Assessment Conclusions and Key Viewpoints

Visual impacts are determined by assessing changes to the visual resources under Alternative 2, and predicting viewer response to those changes. As concluded in the Visual Impact Assessment, Alternative 2 would present a low to moderate-low degree of alterations to the existing visual character and visual quality due to similarities with the current condition of the project site. For this reason, the visual impacts of Alternative 2 would not severely change the existing condition of the environment. The primary viewers of the changes are motorists travelling on SR-1/Lincoln Boulevard and neighbors consisting of residential and commercial users. Offsite views would not be obstructed by the proposed raising of the roadway profile and higher bridge structures. This is especially true for residents living in the upper levels of the Fountain Park Apartment Homes that have private coastal views. Their views would not be impaired since they are higher above the roadway and the distance of off-site views expands beyond the project site. Due to the orientation and proximity of the proposed improvements to these viewers, roadway neighbors are expected to be more exposed and sensitive to the changes due to the time they spend at their locations as opposed to roadway travelers moving at constant speed.

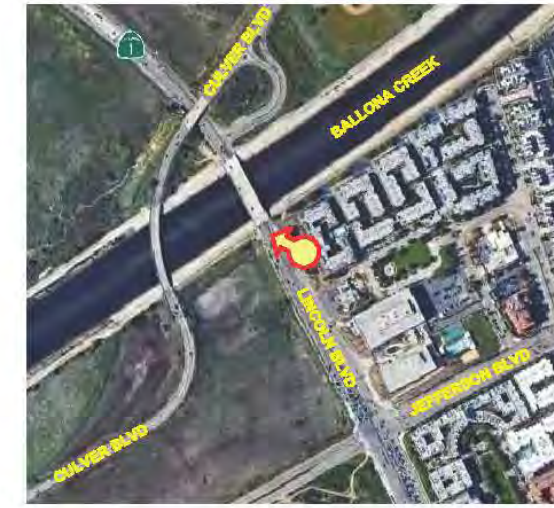
Implementation of Alternative 2 would not create adverse impacts on visual quality. Only minor adverse changes to the setting, viewer exposure, and viewer awareness within the project site are anticipated under Alternative 2. These minor changes would not constitute adverse impacts; therefore, the overall viewer response and visual quality are both considered moderate-low.

In consultation with Caltrans, one key view was selected to be analyzed as part of the Project's Visual Impact Assessment (Lynn Capouya, Inc 2019). Key View #1 is shown in Figure 2.1.11-1. Key View #1 is a public view from near the Fountain Park Apartment Homes looking northwest towards the SR-1/Lincoln Boulevard bridge over Ballona Creek. The existing view consists of a transitional buffer zone separating the complex from the roadway, open vegetated area belonging to the BWER, and the SR-1/Lincoln Boulevard Bridge. This key view was selected to best demonstrate potential changes to the project site's existing visual resources and represents the primary viewer group that would potentially be impacted by the proposed

PROJECT AREA

SCALE: N.T.S.

KEY VIEW ENLARGEMENT



EXISTING CONDITION

BUILD ALTERNATIVE

LEGEND:

PROJECT AREA

PHOTO LOCATION & DIRECTION

Key View Map with Rendering

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Lynn Capouya Inc. Landscape Architect, 2019

Caltrans

Figure 2.1.11-1

improvements. As shown in the Figure, this viewpoint would experience a smaller vegetated buffer from the roadway, but overall the view would remain similar to existing conditions.

Summary – Effects to Scenic Vistas

Alternative 2 would widen an existing roadway, which would result in less vegetation in views of the project site. However, there is an existing roadway and this would consist of a marginal increase in hardscape.

Also, Alternative 2 would realign and increase the profiles of the SR-1/Lincoln Boulevard Bridge over Ballona Creek and the Culver Boulevard Bridge over SR-1/Lincoln Boulevard. Bridge designs and profiles are presented within Chapter 1, Proposed Project. The higher profile of SR-1/Lincoln Boulevard and these two bridges would alter and reduce some views of the adjacent Ballona Wetland Ecological Reserve and of mountains in the distance.

The SR-1/Lincoln Boulevard Bridge would have a concrete barrier along the edges with a tubular handrailing on the top. In addition to being wider, the replacement SR-1/Lincoln Boulevard Bridge would be approximately 8 feet higher than the existing bridge. For most viewers, the bridge would appear as though it was raised and widened to the east.

The Culver Boulevard Bridge would have a concrete barrier along both edges of the bridge with chain link railing at the top. The chain link railing would end approximately 8.8 feet (105.5 inches) above the proposed roadway deck, which accounts for a 73.5 inch chain link railing atop a 32 inch concrete barrier. The chain-link railing would obscure views for motorists and future bicycle and pedestrian users travelling across the bridge in a similar manner as the existing chain-link railing does in existing conditions on this bridge. In addition to being wider, the replacement Culver Boulevard Bridge would be approximately 16 feet higher than the existing bridge. For most viewers, the bridge would appear as though it was raised although the replacement bridge would appear to be traveling on the same alignment as the existing bridge.

Alternative 2 would include installation of new vertical bicycle delineators and green roadway striping at locations along SR-1/Lincoln Boulevard, which would result in minor alterations to the existing visual environment. However, bicycle delineators and green striping already exist nearby on Jefferson Boulevard. Furthermore, these features would not substantially block views of scenic vistas in any way.

In part to minimize effects to scenic vistas and visual character, landscaping has been incorporated as part of Alternative 2. All existing landscaped areas that would be temporarily disturbed by construction of Alternative 2 would receive replacement plantings. All new landscaping within temporary construction easement areas shall consist of an appropriate native, non-invasive plant palette that would be developed in consultation with each property owner in accordance with **MM VIS-3**. All proposed landscaping would conform to the latest Model Water Efficient Landscape Ordinance and applicable local ordinances. Restoration of temporary impact areas within the BWER would be coordinated with CDFW as detailed in **MM REC-1** and **MM VIS-3.** Restoration of temporary impact areas within Fiji Gateway Park would be coordinated with the County as detailed in **MM REC-4** and **MM VIS-3**.

To maximize compatibility with existing views, during final design and the regulatory permitting process, aesthetic treatments for the new Lincoln and Culver Boulevard bridges would be developed in accordance with **MM VIS-4,** Also as part of **MM VIS-4,** the City and Caltrans will work with stakeholders to further refine the bridge aesthetics for the two replacement bridges, including conducting at least one focused outreach meeting related to aesthetics with California Coastal Commission and CDFW staff as well as an additional public meeting with members of the public. Affected stakeholders will be able to provide input on the preferred architectural style, railings, and coloring of the proposed bridge.

The abutments that would be built under Alternative 2 could potentially be the target of graffiti once constructed, which would detract from the visual environment for viewers. To minimize the effects of these types of activities, during final design anti-graffiti treatments shall be specified for Alternative 2's proposed bridge abutment walls in accordance with **MM VIS-5.**

Alternative 2 would require the relocation of power poles within the project site to accommodate the revised roadway alignment. Alternative 2 would relocate existing street lights and traffic signals, and would install new street lights per current Caltrans and City requirements for roadways. These aspects of Alternative 2 would incrementally increase night lighting and visual clutter in the project site.

Alternative 2 would remove existing fencing located along the edges of SR-1/Lincoln Boulevard and Culver Boulevard within the project site. As required by **MM REC-6**, replacement fencing would be installed as part of Alternative 2 to minimize impacts related to potential trespass into unauthorized areas of the BWER and to minimize wildlife getting onto the roadway. As is the case in existing conditions, the replacement fencing would detract from views of pedestrian, cyclists, and motorists of the BWER. The Project would result in approximately 200 linear feet more of fencing than in existing conditions.

Based on the studies completed to date, it is the intent of the City and Caltrans to implement noise abatement as part of Alternative 2 in the form of a noise barrier that would be built on the east side of SR-1/Lincoln Boulevard south of Ballona Creek along the eastern edge of the right-of-way line. The wall would be approximately 350-feet in length and would be approximately 16 feet in height. If during final design conditions have substantially changed, noise abatement may not be necessary. The final decision on the noise barrier will be made upon completion of the project design and the public involvement process. Since a final decision on the noise barrier has not yet been made, this impact analysis for aesthetics assumes that the wall would be built since this would result in the greatest visual change from existing conditions. If this noise barrier were constructed as part of Alternative 2, the primary visual effects would be for private views from apartments and apartment balconies within the Fountain Park Apartments. These private viewpoints provide views to SR-1/Lincoln Boulevard in the foreground and the BWER in the background. Assuming a ten-foot average height per story, a 16-foot barrier would fully obstruct private views out to SR-1/Lincoln Boulevard and the BWER for ground floor apartment units on the west side of the complex. Second floor units on the west side of the complex would have partially obscured views. The ground floor and second floor units fronting SR-1/Lincoln Boulevard would experience additional shading as a result of the noise barrier. Private views from units at the third story and above of the Fountain Park Apartments would have only limited alterations to their views since the barrier would end at the bottom of their viewsheds. Private views from the apartments and balconies on the upper floors of the Fountain Park Apartments would not be obstructed since the barrier would only be 16 feet in height. Also, the noise barrier, in addition to the change in profile for SR-1/Lincoln Boulevard, would obscure views from a private recreational area that is south of Ballona Creek, east of SR-1/Lincoln Boulevard, and just north of the Fountain Park Apartments.

With implementation of mitigation measures **MM VIS-1** through **MM VIS-5**, impacts on Scenic Vistas resulting from implementation of Alternative 2 would be minimized.

Summary – Damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway

The California Scenic Highway Program is maintained by the Caltrans and identifies scenic highway corridors for preservation and protection of aesthetic value. Caltrans maintains a list of routes that are “adopted” and “eligible.” There are three adopted scenic highways in Los Angeles County, all of which are more than 20 miles northeast of the project site. Eligible routes are those that are proposed for further study and may be officially designated when a local jurisdiction adopts a scenic corridor protection program and applies to Caltrans for scenic highway approval. State Route 1 (SR-1, Pacific Coast Highway/Lincoln Boulevard), between State Route 187 (Venice Boulevard) and Interstate 10 (U.S. 10), which begins about 1.5 miles north of the project site and travels farther north, is listed as eligible for designation as a state scenic highway; however, no views of the project site are available from this stretch of SR-1/Lincoln Boulevard due to intervening development in Marina del Rey (Caltrans 2023b).

Given that the project site is not visible from a state scenic highway, Alternative 2 would result is no impact related to this topic.

Summary – Consistency With Plans and Policies Relating to Visual Character

The project site is located in an urbanized area of Los Angeles County pursuant to Section 21071 of the State CEQA Guidelines. Given that the project site is located in an urbanized area, the analysis for this threshold focuses on whether Alternative 2 would conflict with applicable zoning and other regulations governing scenic quality.

As discussed in more detail in Chapter 2.1.2, Consistency With Land Use Plans and Policies, Alternative 2 would be consistent with applicable plans and policies relating to aesthetics and visual quality, and would not directly conflict with any such plans or policies, except as described below.

There are policies contained within the City and County General Plans relating to the maintenance of scenic vistas. See response to Row 15 in Table 2.1.2-1 for more information related to the consistency analysis regarding this topic. In summary, the Project would widen, realign, and increase the profile of the existing roadway that would alter views. However, the Project would include landscaping and other visual features that would minimize visual effects, consistent with City and County policies to protect and reinforce natural and scenic vistas. The Project would involve acquisition of 1.17 acres from the BWER. These portions of the BWER are not visually significant as they are currently covered with a high proportion of non-native herbaceous plant species. This acquisition of 1.17 acres would represent less than 0.5 percent of the 577-acre BWER; therefore, this proposed acquisition would result in a less than significant visual impact on the BWER as a scenic resource. The Project would involve a sound wall; however, the visual effects of the barrier would occur to private viewpoints from parcels to the east of the Project site. Therefore, visual impacts related to the sound wall would not be considered significant pursuant to CEQA.

Alternative 2 would not underground existing overhead power lines and would instead relocate them, which does not fully implement an objective within the Power System Plan of the City of Los Angeles General Plan Infrastructure Systems Element, which is, “To encourage and facilitate the systematic replacement of overhead distribution lines with underground circuits.” Similarly, Policy PS/F 6.6 in the Public Services and Facilities Element of the Los Angeles County General Plan state it is a County policy to, “encourage the construction of utilities underground, where feasible.” However, this would not result in a significant visual impact because the Project would result in similar overhead power lines to existing conditions.

As described above under threshold (a), the Project would be required to implement mitigation measures **MM VIS-1** through **MM VIS-5** to mitigation for impacts related to scenic vistas. These mitigation measures would also be required to minimize Alternative 2's impacts relating to conflicting with applicable zoning and other regulations governing scenic quality.

Therefore, with implementation of mitigation measures **MM VIS-1** through **MM VIS-5**, Alternative 2's effects related to consistency with plans and policies relating to visual character would be minimized.

Summary – New source of substantial light or glare

There is existing lighting within the project site, including traffic signals as well as streetlights along both sides of SR-1/Lincoln Boulevard, along the Culver Boulevard ramp, and along the south side of Culver Boulevard. There is also existing ambient lighting nearby associated with commercial and residential properties adjacent to the project site. There is less existing street lighting within the project site between Fiji Ditch in the north and Culver Boulevard bridge in the south. The entire project site is subject to vehicle headlights at night.

Alternative 2 would result in the removal and replacement of existing streetlights within the project site. Overall, there would be additional streetlights with Alternative 2 than there are in existing conditions. Also, with Alternative 2 the street lights would be more uniformly distributed throughout the project site.

During construction, night lighting would generally not be required since construction activities would mostly occur between 6 a.m. and 9 p.m. in accordance with the City's and County's noise ordinances. However, limited nighttime lighting may be needed during construction within the project site for limited nighttime activities and for safety and security purposes. **MM VIS-1** would be implemented as part of Alternative 2, which requires that any construction night lighting be limited to the maximum extent feasible and that any temporary night lighting be hooded and downcast and that direct illumination be limited to active portions of the project site only.

With implementation of **MM VIS-1,** the lighting effects of Alternative 2 would be minimized.

<u>Cumulative Effects</u>

Implementation of Alternative 2 would result in approximately 36 months of construction activities. During this period of time, the public would experience altered views of an active construction site and unvegetated/graded areas, which would be a visual change from the existing conditions. In the future, other cumulative projects including the SR-1/Lincoln

Boulevard Pavement Rehabilitation Project, the Ballona Wetlands Restoration Project, and future transit projects within the project site would similarly conduct construction within the project site that would also adversely affect views and aesthetics. Cumulatively, viewers in the project site would experience degradation of views caused by several different construction projects that would either be overlapping or concurrent to each other.

The Ballona Wetlands Restoration Project would result in permanent changes to the visual environment within the project site through the re-grading and re-landscaping of the BWER. The Ballona Wetlands Restoration Project would install some vertical elements that would have the potential to affect views such as new pedestrian overcrossings of SR-1/Lincoln Boulevard, Culver Boulevard, and Ballona Creek. Implementation of cumulative projects, including the Ballona Wetlands Restoration Project, and Alternative 2 would result in incrementally more paved surfaces and structures, as well as the replacement of non-native vegetation communities with areas re-planted with native vegetation.

Alternative 2 as well as other cumulative projects would include outdoor lighting, which cumulatively would increase the amount of outdoor lighting within the project site. Outdoor lighting would be designed and installed by all cumulative projects based on City, County, or Caltrans guidance, all of which require shielded and down-cast outdoor lighting and other applicable specifications. As such, there would be an overall increase in night lighting within the project site from existing conditions but no substantial adverse effects are anticipated.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. This area west of SR-1/Lincoln Boulevard is part of the BWER and is generally covered with upland mustard vegetation. Alternative 2A would not re-grade areas beyond the edge of the sidewalk at a 2:1 slope west of SR-1/Lincoln Boulevard at this location. Alternative 2A would result in less disturbance to upland mustard vegetation and less total area of construction activities. When compared to Alternative 2, construction of Alternative 2A would slightly decrease effects related to aesthetics and visual resources. Otherwise, the construction effects of Alternative 2A related to aesthetics and visual resources would be the same as for Alternative 2.

Operational Effects

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER, an open space land use, and the west side of SR-1/Lincoln Boulevard north of Culver Boulevard. This retaining wall could be the target of graffiti. Therefore, **MM VIS-5** would be implemented as part of Alternative 2A to minimize the effects of graffiti, which requires that anti-graffiti treatments be specified for all bridges, abutments, retaining walls, and the one noise barrier. When compared to Alternative 2, operation of Alternative 2A would result in greater visual effects than the 2:1 slope that would be re-landscaped at this location under Alternative 2. Otherwise, Alternative 2A would result in the same operational effects related to aesthetics and visual resources as Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to aesthetics and visual resources would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would require fewer temporary construction easements within parcels owned by Southern California Edison (SCE) and the Los Angeles County Flood Control District (LACFCD). The reduced ground disturbance that would result from Alternative 2B would reduce effects identified for Alternative 2 related to temporary vegetation removal. When compared to Alternative 2, construction of Alternative 2B would slightly decrease effects related to aesthetics and visual resources. Otherwise, the construction effects of Alternative 2B related to aesthetics and visual resources would be the same as for Alternative 2.

Operational Effects

Alternative 2C would require fewer temporary construction easements within parcels owned by SCE and LACFCD. The cantilevered sidewalks that would be built as part of Alternative 2B would result in no new visual or aesthetic effects when compared to Alternative 2 as these sidewalks would be at the same locations as the standard sidewalks that would be built under Alternative 2 and would not be discernible from the sidewalks that would be constructed under Alternative 2. Otherwise, the operational effects of Alternative 2B related to the aesthetics and visual resources would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to aesthetics and visual resources would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements within two parcels that are a part of the BWER. The increased ground disturbance that would result from Alternative 2C would incrementally increase effects identified for Alternative 2 related to degradation of views resulting from construction activities and ground disturbance. This would also result from the incremental increase in bridge construction activities that would occur to build an incrementally wider bridge. Otherwise, the construction effects of Alternative 2C related to aesthetics and visual resources would be the same as for Alternative 2.

Operational Effects

Alternative 2C would increase partial right-of-way acquisition within two parcels that are a part of the BWER and identified as open space land uses just north of the existing Culver Boulevard bridge. This would result in a minor increase in permanent impacts to areas covered with upland mustards and Menzies's Golden Bush Scrub.

The bridge would appear wider for viewers where vegetation would be permanently removed to accommodate the wider bridge. When compared to Alternative 2, Alternative 2C would result in minor increases in effects related to vegetation removal and temporary visual character. Otherwise, operation of Alternative 2C would have the same effects related to aesthetics and visual resources as Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to aesthetics and visual resources would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER and an open space land use. These work activities would occur entirely within a permanent right-of-way area that is proposed within this parcel. Therefore, impacts to vegetation in these areas would be considered permanent.

When compared to Alternative 2, construction of Alternative 2D would result in a minor amount of additional construction activities and resultant effects including impaired views from additional temporary construction activities that would not occur under Alternative 2. Otherwise, the construction effects of Alternative 2D related to the aesthetics and visual resources would be the same as for Alternative 2.

Operational Effects

Alternative 2D would require additional permanent right-of-way acquisition from APN 4211-015-900, which is a part of the BWER and an open space land use. This area would need to be acquired under Alternative 2D to construct a new bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900 that would not be constructed under Alternative 2. These new built elements would be no more than six feet in height, and would therefore not effect views of scenic vistas. The new built elements proposed under Alternative 2D are substantially similar to elements of the visual environment elsewhere within the project site.

Alternative 2D would install low-level pedestrian lighting that is not included in Alternative 2 that would increase the level of lighting locally when compared to Alternative 2 and when compared to existing conditions; however, the new lighting would be shielded and down-cast to minimize effects. Therefore, this new lighting would not substantially change the community character or amount of cohesion of the area.

When compared to Alternative 2, Alternative 2D would result in a minor increase in visual effects attributable to new-built elements that would be built within the BWER, including pedestrian-scaled night lighting. Otherwise, the operational effects of Alternative 2D related to the coastal zone would be the same as for Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to aesthetics and visual resources would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM VIS-1**: Construction night lighting would be limited to the maximum extent feasible. The contractor will ensure that all construction lighting is hooded and downcast, and that direct illumination be limited to the active portions of the project site.
- **MM VIS-2**: To minimize temporary impacts to views, the construction staging area south of Ballona Creek and west of SR-1/Lincoln Boulevard shall be enclosed with an 8-foot-tall or taller chain-link fence with privacy windscreen or similar materials. The contractor would ensure the maintenance of the screening material at all times and shall remove and replace sections of screening material that experience graffiti, wind, or other damage. The contractor shall provide daily visual inspections to ensure the immediate surroundings of construction staging areas are free from construction-related clutter and to maintain the areas in a clean and orderly manner throughout the construction period.
- **MM VIS-3:** All existing landscaped areas that would be temporarily disturbed by project construction would receive replacement landscaping. All new landscaping within temporary construction easement areas would consist of appropriate native, non-invasive plant palette that is developed by the City in consultation with each property owner. All proposed landscaping would conform to the latest Model Water Efficient Landscape Ordinance and applicable local ordinances. New landscaping in temporary impact areas within the Ballona Wetlands Ecological Reserve would be coordinated with CDFW as detailed in **MM REC-1.** Restoration of temporary impact areas within Fiji Gateway Park would be coordinated with the County as detailed in **MM REC-4**.
- **MM VIS-4**: During final design, once a bridge architect is selected for the Project, the City will develop aesthetic treatments for the two proposed bridges and for the noise barrier. During final design, the City and bridge architect will work with stakeholders to determine bridge aesthetics for the two replacement bridges, including conducting at least one focused outreach meeting related to aesthetics with California Coastal Commission staff as well as an additional meeting with members of the public. Affected stakeholders will be able to provide input on the preferred architectural style and coloring of the bridges, and preferred style and treatments for the noise barrier.
- **MM VIS-5:** During final design, anti-graffiti treatments shall be specified for the Project's bridges, abutments, retaining walls, and noise barrier.

2.1.12 Cultural Resources

Information in this section is derived in part from the following technical study:

- Caltrans. 2023c. Historic Property Survey Report (HPSR). Los Angeles, CA: Caltrans.
- Caltrans, 2023d. Archaeological Survey Report (ASR). Los Angeles, CA: Caltrans.
- Caltrans, 2023e. Historical Resources Evaluation Report (HRER). Los Angeles, CA: Caltrans.
- Caltrans, 2023f. Extended Phase I (XPI). Los Angeles, CA: Caltrans.
- Caltrans, 2023g. Post-Review Discovery and Monitoring Plan (PRDMP). Los Angeles, CA: Caltrans.

The reports and documentation noted above are provided within Appendix K of this Draft EIR/EA.

Regulatory Setting

The term "cultural resources," as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and State laws, cultural resources that meet certain criteria of significance are referred to by various terms including "historic properties," "historic sites," "historical resources," and "tribal cultural resources."

Federal

<u>Section 106 of the National Historic Preservation Act</u>

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the FHWA, the ACHP, the California State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both State and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The

FHWA's responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 United States Code 327).

State

California Environmental Quality Act (CEQA)

CEQA requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

Public Resources Code

PRC Section 5024 requires state agencies to identify and protect State-owned historical resources that meet the NRHP listing criteria. It further requires Caltrans to inventory State-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require State agencies to provide notice to and consult with the SHPO before altering, transferring, relocating, or demolishing State-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU)[23] between Caltrans and SHPO, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

California Register of Historical Resources

The CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for State and local planning purposes; determines eligibility for State historic preservation grant funding; and

[23] The MOU is located on the SER at https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/5024mou-15-a11y.pdf

affords certain protections under CEQA. The criteria established for eligibility for the CRHR are directly comparable to the national criteria established for the NRHP. In order to be eligible for listing in the CRHR, a building, object, or structure must satisfy at least one of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. It is associated with the lives of persons important to local, California, or national history.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Archaeologists assess sites based on all four of the above criteria but usually focus on the fourth criterion provided above. Historical resources eligible for listing in the CRHR must also retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. For the purposes of eligibility for the CRHR, integrity is defined as “the authenticity of an historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance”. This general definition is generally strengthened by the more specific definition offered by the NRHP—the criteria and guidelines on which the CRHR criteria and guidelines are based upon.

<u>Assembly Bill 52</u>

In September 2014, Governor Brown signed AB 52 (Chapter 532, Statutes of 2014), which creates a new category of environmental resources that must be considered under CEQA: “tribal cultural resources.” The legislation imposes new requirements for offering to consult with California Native American tribes regarding projects that may affect a tribal cultural resource, emphasizes a broad definition of what may be considered to be a tribal cultural resource, and includes a list of recommended mitigation measures (MMs).

Recognizing that tribes may have expertise regarding their tribal history and practices, AB 52 requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. MMs agreed upon during consultation must be recommended for inclusion in the environmental document.

AB 52 became effective on July 1, 2015, and requires that the lead agency provide project notifications to California Native American tribes on the (NAHC) Tribal Consultation list that request notification in writing prior to a lead agency's release of a Notice of Preparation for an EIR, a Mitigated Negative Declaration, or Negative Declaration. Once Native American tribes receive a project notification, they have 30 days to respond as to whether they wish to initiate consultation regarding the Project and specifically consultation regarding mitigation for any potential project impacts. More information related to the Project's AB 52 tribal consultation is provided in Chapter 3.16 of this Draft EIR/EA.

Affected Environment

To evaluate cultural resources, Caltrans has prepared the following technical reports for this Project: an HPSR; an ASR; an HRER; an XPI; and a PRDMP (Caltrans 2023 c–g).

South Central Coastal Information Center (SCCIC) Records Search

An archaeological and historical resources records search for the project site and the surrounding one-mile radius was conducted on January 9, 2018, at the South Central Coastal Information Center (SCCIC), located at the Department of Anthropology at California State University, Fullerton. The SCCIC is the designated regional repository of the California Historical Resources Information System (CHRIS) for records regarding archaeological and historical resources and associated studies in Los Angeles County. The CHRIS system provides data on the NRHP, CRHR, California Historical Landmarks, California Points of Historical Interest, and Historical Landmarks of Los Angeles County, plus historical maps and photographs as needed.

The results of the 2018 records search identified 68 studies within a 1-mile search radius of the project site. Of the 68 studies, six occur within the project site. The studies date from 1936 to 2016 and consist primarily of block archaeological field studies and literature reviews, archaeological excavations and monitoring, and general overviews of the region.

The 2018 records search at the SCCIC showed that 32 cultural resources have been recorded within a 1-mile radius of the project site.

Of these 32, five are located within the project site; however, one of the cultural resources previously identified in [1981] as a prehistoric shell scatter—CA-LAN-1698—was updated in 1990 by Statistical Research Incorporated (SRI). SRI determined that the shell scatter was the result of redeposited fill and not cultural in origin. The remaining four cultural resources shown within the project site consist of built environment resources and include P-19-176733 (Culver Blvd Overcrossing), P-19-176734 (SR-1/Lincoln Blvd over Ballona Channel), P-19-187805 (Ballona Creek Flood Control Channel), and P-19-192324 (Railroad Grade). For a more detailed description of the built environment resources see the attached 2019 HRER prepared by JRP Historical Consulting.

The resources outside of the project site include prehistoric/Native American lithic scatters, habitation debris, shell middens, and burials as well as historical sites consisting of refuse scatters, remnants of railroads, and built environment resources such as bridges.

Additionally, a number of the prehistoric archaeological sites within the one-mile radius of the project site are part of the Ballona Lagoon Archaeological District (BLAD), an NRHP eligible district. The BLAD establishes the conceptual fabric for examining the archaeological resources in the greater Ballona Lagoon area collectively, as parts of the region's prehistoric hunter-gatherer populations' adaptive settlement and subsistence system centered on the lagoon environment.

The establishment of the BLAD allows for a more standardized procedure for assessing the significance of sites as contributors to the district. Specifically, each archaeological site identified within the Ballona Lagoon region should be evaluated to determine whether it is a contributing element of the BLAD.

Cultural Resources Surveys and Assessments

<u>Archaeological Survey Report (ASR)</u>

An Archaeological Survey Report (ASR) was prepared for the Project utilizing information obtained from: a records search that was conducted at the South Central Coastal Information Center (SCCIC); a search of the Sacred Lands File at the NAHC; a pedestrian survey of the Project APE; and tribal consultation.

The records search conducted for the ASR did not show any archaeological resources within or immediately adjacent to the Project's APE; however, the project location was determined to be situated in a highly archaeologically sensitive area as indicated by numerous Native American sites known to exist within the Ballona Lagoon area, and that are a part of the Ballona Lagoon Archaeological District. The cultural sensitivity of the area is confirmed by the information provided and concerns relayed by Native American representatives as a result of the consultation conducted for this Project. The involved Native American communities have expressed the need for archaeological and Native American monitoring of ground disturbing activities in the Ballona Lagoon area. The archaeological field survey of accessible portions of the Project's APE failed to identify prehistoric or historical archaeological resources; however, there is a high potential to uncover intact cultural deposits at depths as well as within areas of the APE that could not be surveyed. For this reason, an Extended Phase I (XPI) investigation has been conducted for the Project APE, as described in more detail below.

Extended Phase I Investigation

Psomas conducted an XPI field investigation within the project site in October 2022. The field work included excavation of four shovel test pits and three trenches. The excavations did not uncover any cultural resources within the project site. The extent of ground disturbance varies across the project site. Results of shovel testing to the south indicate ground disturbance in this area extended at least 0.5 meter below the modern ground surface. Portions of the project site in the former alignment of the Pacific Electric Railroad, which was constructed during the end of the 19th century, appear to exhibit minimal disturbance as construction practices at that time were less intrusive. Other features, such as the channelization of Ballona Creek, had a significant effect both in depth of excavation and distribution of spoils. Several meters of material appear to have been deposited to bring up the grade of the baseball fields and on-ramp. Coring done for the Project indicates 4 to 7 feet of fill west of Lincoln Highway. The results of the XPI field investigation indicate that the potential to uncover buried intact cultural deposits within the project site is low due to past disturbances and the area once being a freshwater marsh; however, to confirm the conclusions of the XPI Report and to assuage any Native American concerns, the City of Los Angeles Department of Transportation will implement archaeological and Native American monitoring of areas requiring ground disturbance below the fill areas.

Post-Review Discovery and Monitoring Plan (PRDMP)

The cultural resource identification efforts conducted for the Project determined that undisturbed portions of the APE have a low sensitivity for containing precontract resources associated with resource gathering and processing. However, out of an abundance of caution and in deference to Native American concerns, the City of Los Angeles, in coordination with Caltrans, will implement an archaeological and Native American monitoring program, which is described in more detail in the PRDMP.

Historical Resource Evaluation Report (HRER)

JRP staff prepared an HRER for the Project in 2019. As described in the HRER, three properties within the Area of Potential Effects (APE) were previously determined not eligible for listing in the NRHP. These are the Ballona Creek Channel, the SR-1/Lincoln Boulevard Bridge over Ballona Creek Channel (Bridge No. 53 0118), and the Culver Boulevard Overcrossing (Bridge No. 53 0089). One property in the APE required formal evaluation as part of the HRER. This is the remnants of a Pacific Electric Railway bridge that are immediately north of the Culver Boulevard overcrossing and flank SR-1/Lincoln Boulevard. Pamela Daly previously recorded these as "abutments," although they are actually the approach spans and bents of the former bridge. The HRER concludes that the structure is not eligible for listing in the NRHP. This property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the State CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. No properties are historical resources for the purposes of CEQA. A full evaluation of the property under NRHP/CRHR criteria is provided on the DPR 523 forms in Appendix B of the HRER. In conclusion, the HRER found that there are no historic properties/historical resources within the Project's APE.

Consultation with the State Historic Preservation Officer

As described in the Project's HPSR, ASR, XPI, PRDMP, and HRER, the Project's APE contained three (3) previously determined not eligible resources and one property that required formal evaluation as part of this project and was determined not eligible for listing in the NRHP: the Pacific Electric Railway (P-19-192326). Should SHPO concur with the determination of eligibility, a finding of No Historic Properties Affected is appropriate for the undertaking because there are no historic properties within the APE.

On April 26, 2023, Caltrans submitted the Project's HPSR, ASR, XPI, PRDMP, and the HRER for the proposed Project to the SHPO for review. On May 25, 2023, Caltrans received a letter from the SHPO concurring with the findings of the Project's cultural reports of No Historic Properties Affected, which also included concurrence with the determination of eligibility of the Pacific Electric Railway Approaches (P-19-192326) as not eligible for listing in the NRHP.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the NAHC, who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the Caltrans District Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Section 4(f) of the Department of Transportation Act of 1966 provides protection for historic properties. There are no historic properties present within the APE; therefore, there are no Section 4(f) historic sites affected by the proposed project.

Environmental Consequences

Alternative 1 – No Build Alternative:

<u>Construction Effects</u>

Since Alternative 1 would involve no grading or other ground disturbing activities or the removal of any structures, there would be no short-term effects to cultural resources under this alternative.

<u>Operational Effects</u>

Alternative 1 would not have any operational effects related to cultural resources.

<u>Cumulative Effects</u>

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to cultural resources.

Alternative 2 – Base Alternative

<u>Construction Effects</u>

As discussed above, a cultural resources investigation was conducted of the project site. Identification efforts included a review of existing literature, historic maps, a records search at the SCCIC, Native American consultation and search of the NAHC Sacred Lands File, and an archaeological survey of the APE. The results of these identification efforts are presented in detail in the ASR that is Attachment 3 of the HPSR. Record search results showed that 32 cultural resources have been recorded within a one-mile radius of the APE. An XPI study was conducted to provide presence/absence information on subsurface archaeological deposits in the APE. No evidence of subsurface archaeological resources were identified in the XPI study. In the HPSR, Caltrans concluded that no historical resources are known to be present within the project site and that undisturbed portions of the APE have a low sensitivity for containing precontract resources associated with resource gathering and processing.

As described in more detail in the HPSR, the remnants of a Pacific Electric Railway bridge that is immediately north of the Culver Boulevard overcrossing was determined to not meet historic eligibility criteria.

Out of an abundance of caution and in deference to Native American concerns, the City of Los Angeles, in coordination with Caltrans, will implement an archaeological and Native American monitoring program as outlined in the Project's PRDMP, which specifies the archaeological monitoring protocols that shall be implemented during construction. The PRDMP is provided as Attachment 6 to the HPSR. The PRDMP includes minimum requirements related to: archaeological monitoring procedures; Native American participation in monitoring; environmental sensitivity training; notification procedures; and procedures to be implemented in the case of human remains being encountered. The PRDMP also includes procedures and protocols for archaeological field work, laboratory protocols, and procedures for processing of isolates and/or secondary deposits if they are encountered during construction. As required by Section 9 of the PRDMP, a final Cultural Resources Monitoring Report would be prepared and circulated to Native American parties that were involved in consultation during the circulation of the Draft EIR/EA period.

With implementation of the requirements in the PRDMP as required in **MM CUL-1**, Alternative 2 would have no substantial adverse effects related to cultural resources.

Operational Effects

Operation of Alternative 2 would not involve any ongoing grading or other ground disturbance work that could potentially encounter cultural materials. Therefore, operation of Alternative 2 would have no substantial adverse effects related to cultural resources.

Cumulative Effects

As concluded in the HPSR, Alternative 2 is not anticipated to encounter or disturb any cultural resources during construction.

As described above, there is a remote possibility that undiscovered intact archaeological deposits may be present and encountered within the project site during construction of Alternative 2. Therefore, requirements for monitoring, salvage, cataloging, and reporting have been incorporated that would minimize any adverse effects that would result from Alternative 2.

It is likely that most of the cumulative projects would result in native ground disturbance that could similarly encounter and affect archaeological resources and/or human remains. During each projects' entitlement process, it is the responsibility of the CEQA Lead Agency reviewing each of these projects to identify potentially significant impacts, including potential archaeological resource impacts related to archaeological sensitivity, and to require mitigation measures if needed. Furthermore, all projects are required to comply with standard requirements to stop work and call the County Coroner if human remains are encountered. Therefore, given that cumulative projects would be required to implement similar measures as those that have been specified for Alternative 2, there would be no cumulatively considerable impacts related to cultural resources.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would install a new retaining wall along the west side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge, which would result in a greater depth of excavation at this location; however, temporary effects west of SR-1/Lincoln Boulevard would be reduced. Overall, Alternative 2A would have similar effects related to cultural resources as Alternative 2.

Operational Effects

Under Alternative 2A, operational effects related to cultural resources would be the same as described for Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to cultural resources would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Widening of the Roadway Over Fiji Ditch to Avoid Direct Impacts to a Wetland Feature

Construction Effects

Alternative 2B would reduce the construction footprint within Fiji Ditch on both sides of SR-1/Lincoln Boulevard when compared to Alternative 2, which would result in a minor decrease in the likelihood of encountering unknown cultural resources in these areas.

Operational Effects

Alternative 2B would result in the same impacts to cultural resources as Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to cultural resources would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2C would require approximately 250 square feet of additional temporary construction easements on the east and west sides of SR-1/Lincoln Boulevard at the location of the replacement Culver Boulevard Bridge that would be needed to construct a wider bridge than is assumed under Alternative 2. Therefore, Alternative 2A would result in a minor increase in the potential to encounter unknown cultural resources when compared to Alternative 2.

<u>Operational Effects</u>

Under Altrernative 2C, operational impacts on cultural resources would be the same as those associated with Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2C, cumulative effects related to cultural resources would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Provide Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

<u>Construction Effects</u>

Alternative 2D would require approximately 250 square feet of additional temporary construction easements within the BWER on the west of SR-1/Lincoln Boulevard south of the proposed replacement Culver Boulevard Bridge. This additional area would be utilized for construction access and work related to the construction of a new bicycle/pedestrian ramp connection that would be constructed under Alternative 2D. Therefore, Alternative 2D would result in a minor increase in the potential to encounter unknown cultural resources when compared to Alternative 2.

<u>Operational Effects</u>

Under Alternative 2D, cumulative effects related to cultural resources would be the same as described for Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2D, cumulative effects related to cultural resources would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM CUL-1**: The City shall ensure that the procedures identified in the Post-Review Discovery and Monitoring Plan (PRDMP) are implemented, including: archaeological monitoring procedures; Native American participation in monitoring; environmental sensitivity training; notification procedures; procedures to be implemented in the case of human remains being encountered; procedures and protocols for archaeological field work, laboratory protocols, procedures for processing of isolates and/or secondary deposits if they are encountered during construction; and preparation and submittal of a final Cultural Resources Monitoring Report to Caltrans and to Native American parties that were involved in consultation during the circulation of the Draft EIR/EA period.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

Federal

Clean Water Act (33 U.S. Code [USC] 1251 et seq.)

The Clean Water Act was enacted with the primary purpose of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. Section 319 of the Act mandates specific actions for the control of pollution from nonpoint sources. Section 401 of the Act requires any applicant for a Federal license or permit to conduct any activity that may result in a discharge of a pollutant into navigable waters to obtain a certification from the State in which the discharge originates that certifies that the discharge will comply with the applicable effluent limitations and water quality standards. The State agency responsible for implementing Section 401 in California is the Regional Water Quality Control Board (RWQCB). Section 404 of the Act regulates discharges of dredged or fill material into waters of the U.S. Section 402 of the Act requires a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of pollutants into waters of the U.S. from any point source. In 1987, Section 402 was amended to require that the United States Environmental Protection Agency (USEPA) establish regulations for permitting municipal and industrial storm water discharges under the NPDES program. The USEPA has delegated responsibility to the State Water Resources Control Board (SWRCB), the nine RWQCBs, and water quality control planning and control programs to implement and enforce the NPDES Program within California. The Project is subject to the NDPDES General Construction Permit which includes measures to eliminate or reduce pollutant discharges during construction activities through implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP describes the implementation and maintenance of Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the site during construction. Section 303(c)(2)(b) of the Act requires states to adopt water quality standards for all surface waters of the U.S. based on the water body's designated beneficial use. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria based upon bio-monitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. Water quality standards applicable to the Project are listed in the RWQCB's Basin Plan for the Los Angeles region.

Executive Order 11988

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The FHWA requirements for compliance are outlined in 23 Code of Federal Regulations 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the Project.

The base floodplain is defined as "the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the base floodplain."

National Flood Insurance Program (NFIP)

Federal Emergency Management Agency (FEMA) is responsible for managing the National Flood Insurance Program (NFIP), which makes Federally-backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. The NFIP, established in 1968 under the National Flood Insurance Act, requires that participating communities adopt certain minimum floodplain management standards, including restrictions on new development in designated floodways, a requirement that new structures in the 100-year floodplain be elevated to or above the 100-year flood level (known as base flood elevation), and a requirement that subdivisions be designed to minimize exposure to flood hazards.

To facilitate identifying areas with flood potential, FEMA has developed Flood Insurance Rate Maps that can be used for planning purposes, including floodplain management, flood insurance, and enforcement of mandatory flood insurance purchase requirements.

33 USC Section 408: Modifications and Alterations of Corps of Engineers Projects

Section 14 of the Rivers and Harbors Act of 1899 and codified in 33 USC Section 408 (e.g., Section 408) authorizes the Secretary of the Army, on the recommendation of the Chief of Engineers of the Corps, to grant permission for the alteration of a Corps' civil works project if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the Project. Because Ballona Creek is a Corps flood risk management project, a Section 408 permit would be required to remove and reconstruct the Ballona Creek bridge over Ballona Creek. The Section 408 permit application would include all project plans and review the proposed hydrologic changes for the Chief of Engineer's consideration on whether these changes would ultimately impair the usefulness of the original project or not.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code §13000 et seq.) requires protection of water quality by appropriate design, sizing, and construction of erosion and sediment controls. The Porter-Cologne Act established the State Water Quality Control Board (SWQCB) and divided California into nine regions, each overseen by a RWQCB. The SWRCB is the primary State agency responsible for protecting the quality of the State's surface and groundwater supplies and has delegated primary implementation authority to the nine RWQCBs. The Porter-Cologne Act assigns responsibility for implementing Clean Water Act Sections 401 through 402 and 303(d) to the SWRCB and the nine RWQCBs.

The Porter-Cologne Act requires the development and periodic review of water quality control plans (Basin Plans) that designate beneficial uses of California's major rivers and groundwater basins and establish narrative and numerical water quality objectives for those waters, provide the technical basis for determining waste discharge requirements, identify enforcement actions, and evaluate clean water grant proposals. Basin Plans are updated every 3 years. Compliance with Basin Plans is achieved primarily through implementation of the NPDES, which regulates waste discharges as discussed above.

The project site is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB)–Region 4, the Los Angeles Region. The Basin Plan for the Los Angeles Region defines a variety of water quality objectives for the hydrologic units (watersheds) within the project area (LARWQCB 1994a).

Los Angeles Regional Water Quality Control Board (LARWQCB)

The project site is located within the jurisdiction of the LARWQCB, which is one of the nine state RWQCBs under the purview of the SWRCB. The jurisdiction of the LARWQCB includes the coastal watersheds of Los Angeles and Ventura Counties and limited portions of Kern and Santa Barbara Counties. The SWRCB sets statewide policy and, together with the nine State RWQCBs, implements State and Federal laws and regulations that pertain to water quality. The LARWQCB implements State and Federal laws and regulations within its jurisdiction and continuously maintains its Water Quality Control Plan, the Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (“Basin Plan”) (LARWQCB 1994a).

Environmental Setting

Existing Hydrology

The project site is located within the Ballona Creek Watershed. Ballona Creek traverses the project site generally from the east to the west. Ballona Creek includes three reaches as defined by the 1994 Water Quality Control Plan for the Los Angeles Region (Basin Plan) (LARWQCB 1994). The Project is located within the Ballona Creek Estuary reach of the plan, which covers Centinela Avenue west to the Pacific Ocean.

Within the project site, Ballona Creek is a straight, trapezoidal, soft-bottomed channel with concrete flood control levees along the banks.

The Ballona Creek Watershed covers an area of 130 square miles and is located in the coastal plain of the Los Angeles Basin. The boundaries of the watershed are the Santa Monica Mountains to the north, the Harbor Freeway (110) to the east, and the Baldwin Hills to the south. Ballona Creek is a 9-mile long waterway that flows through Culver City and Los Angeles until it reaches Santa Monica Bay between Marina del Rey and Playa del Rey. There are three major tributaries to Ballona Creek which include Benedict Canyon Channel, Sepulveda Creek Channel, and Centinela Creek Channel. After flooding events in the 1930s, the Ballona Creek and its tributaries were channelized and concrete levees were constructed. A map of the Ballona Creek Watershed is provided as Figure 2.2.1-1.

In addition to Ballona Creek, the following storm water drainage facilities are located within the project site:

- A 24-inch storm drain is located within SR-1/Lincoln Boulevard and flows south out of the project site. This drain conveys flows from two storm drain inlets located on the east and west sides of SR-1/Lincoln Boulevard south of Ballona Creek;

Ballona Creek Watershed
Ballona Creek
Project Location
Project Limits
Watershed Flowlines
Watershed Boundary
Miles
Ballona Creek Watershed
State Route 1 (Lincoln Blvd)
Multimodal Improvement Project
07-LA-01, PM 30.16/30.74
EA 33880
Data Sources: Esri, Maxar 2022, CPAD 2019

Figure 2.2.1-1

- A storm water basin adjacent to the Culver Loop just south of the existing Culver Boulevard bridge that collects flows from the loop ramp as well as from Culver Boulevard east of the project site;
- An outlet from the storm water basin mentioned above to the south into Ballona Creek just east of the existing SR-1/Lincoln Boulevard bridge, which has a brief ~25-foot-long daylit segment between the Culver Loop and the Ballona Creek Bike Path ramp;
- A 42-inch storm drainpipe that occurs along the east side of SR-1/Lincoln Boulevard from Fiji Way to 350 feet to the south. Then the 42-inch storm drain travels west across SR-1/Lincoln Boulevard and then goes south to the south along the west edge of SR-1/Lincoln Boulevard until the pipe outlets into Ballona Creek west of the existing SR-1/Lincoln Boulevard bridge;
- A 24-inch pipe that flows from west to east 300 feet south of Fiji Way; and
- A 21-inch LA County storm drainpipe is located west of SR-1/Lincoln Boulevard. This pipe runs from west to east along Fiji Way towards SR-1/Lincoln Boulevard, then shifts south until the pipe outlets into Fiji Ditch.

<u>Existing Hydrologic Conditions Within Ballona Creek</u>

The Sea Level Rise Report that was prepared for the Project in 2023 included an evaluation of three design discharges that are applicable for the reach of Ballona Creek in which the Project occurs, which included: U.S. Army Corps of Engineers (USACE) 100-year discharge; Federal Emergency Management Agency (FEMA) 100-year discharge; and the Los Angeles County Department of Public Works 50-year burned-and-bulked, or Capital, (QCAP) discharge (MBI 2023). Existing discharge volumes for Ballona Creek at SR-1/Lincoln Boulevard are provided in Table 2.2.1-1.

Table 2.2.1-1 – Design Discharges (cfs) for Ballona Creek at SR-1/Lincoln Boulevard

FEMA	USACE	QCAP
44,270 cfs	46,000 cfs	51,240 cfs

FEMA: Federal Emergency Management Agency; USACE: U.S. Army Corps of Engineers; QCAP: Capital; cfs: cubic feet per second.
Source: MBI 2023.

Hydrology-Related Attributes of the Existing SR-1/Lincoln Boulevard Bridge Over Ballona Creek

In the existing condition, the bridge is a four-bent structure with three pier walls. The piers are 90.0 feet apart with a width ranging from 3.25 to 4.50 feet. The deck is vertically curved with the low chord ranging from 17.9 to 21.3 feet North American Vertical Datum of 1988 (NAVD88), and a high chord ranging from 21.4 to 25.8 feet NAVD88. The existing bridge deck is not super-elevated[24]. The representation of the existing bridge in HEC-RAS is shown in Figure 2.2.1-2 (MBI 2023).

Existing Flooding Risks According to FEMA Mapping

Flooding can occur when storm water runoff exceeds the conveyance capacity of the drainage system. Flooding can also occur due to tsunamis, high tides/storm surge, dam or levee failure, sea level rise, or other causes.

Ballona Creek drains a large portion of the Los Angeles basin, and seasonal storms are expected to produce floods within the channel beneath the SR-1/Lincoln Boulevard bridge annually. Available as-built maps suggest that the design flood level within Ballona Creek may be on the order of 6 feet (MSL) (Group Delta 2022a).

FEMA identifies areas throughout the United States that are at risk for flooding. FEMA Flood Insurance Rate Maps (FIRMs) show areas that have a 0.2% risk (500-year event) or a 1% risk (100-year event) of being inundated by a flood event in a given year. The FEMA floodplain limits within the project site and nearby vicinity are shown on FEMA FIRM Panel 06037C1760, which is provided as Figure 2.2.1-3. As shown in Figure 2.2.1-3, the Ballona Creek Channel is identified as Zone A with a 1 percent annual change of flooding but with the flood hazard contained in the channel. Areas south, west, and southeast of the SR-1/Lincoln Boulevard and Jefferson Boulevard intersection are within Zone X, which delineates areas that have a 0.2 percent annual chance of flood hazards. SR-1/Lincoln Boulevard is mapped as occurring within Zone X just south of Jefferson Boulevard. Jefferson Boulevard is mapped as occurring in Zone X from just west of SR-1/Lincoln Boulevard until it merges with Culver Boulevard. Similarly, Culver Boulevard is mapped as occurring within Zone X (FEMA 2008).

Existing Tsunami Risks

A tsunami is a wave or series of waves generated by an earthquake, landslide, volcanic eruption, or even large meteor hitting the ocean (DOC 2015). On shore run-up of a tsunami can cause

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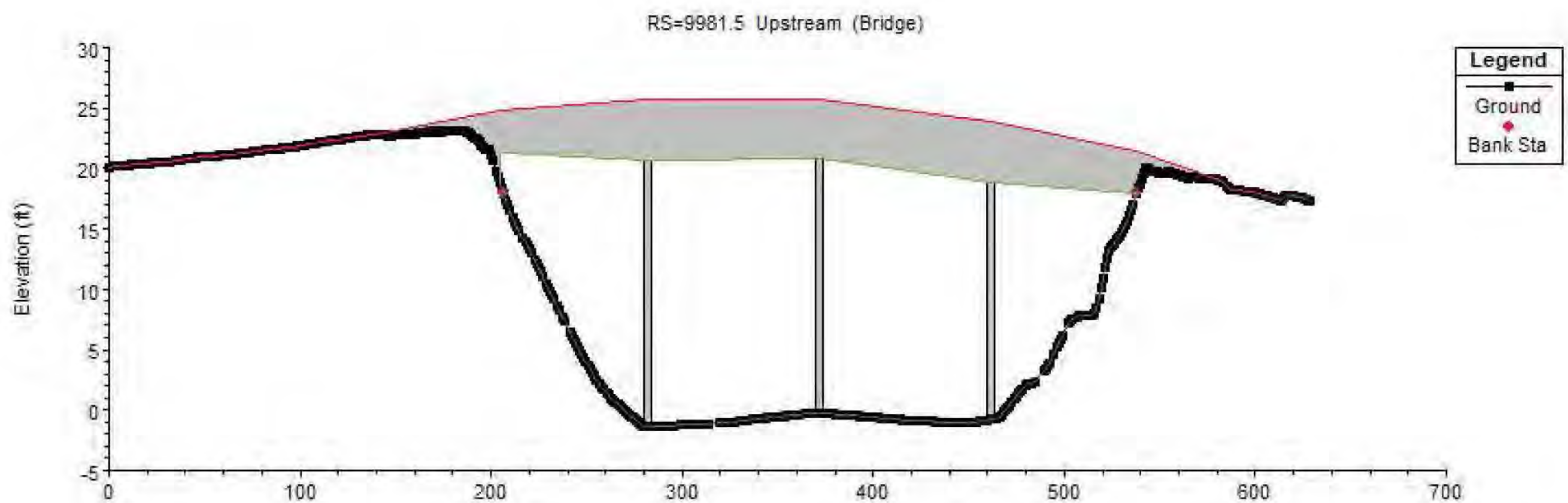
[24] “Superelevation” refers to a roadway that is built so that the outer portion of the road is higher, or superelevated, relative to the inner edge of the roadway.



Existing Lincoln Boulevard Bridge Cross-Section
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Michael Baker International, 2022

Figure 2.2.1-2

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A, V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes *Zone X*
	Area with Flood Risk due to Levee *Zone D*
	NO SCREEN Area of Minimal Flood Hazard *Zone X*
	Effective LOMRs
OTHER AREAS	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	20.2 Cross Sections with 1% Annual Chance
	17.5 Water Surface Elevation
	8 Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	511 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

PANEL **1760** OF **2204**

Panel Contains:

COMMUNITY	NUMBER	PANEL
CITY OF CULVER CITY	060114	1760
CITY OF INGLEWOOD	065036	1760
CITY OF LOS ANGELES	060137	1760
CITY OF CULVER CITY	060114	1760
LOS ANGELES COUNTY	065043	1760
CITY OF LOS ANGELES	060137	1760
LOS ANGELES COUNTY	065043	1760

MAP NUMBER
06037C1760F
EFFECTIVE DATE
September 26, 2008

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by the United States Geological Survey (L The basemap shown is the USGS National Map: Orthoimagery. Last refreshed October, 2020.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 4/6/2023 7:38 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at https://www.fema.gov/media-library/assets/documents/118418

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

FEMA Flood Insurance Rate Map	
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project	
07-LA-01, PM 30.16/30.74	Caltrans
EA 33880	
Sources: FEMA 2008	

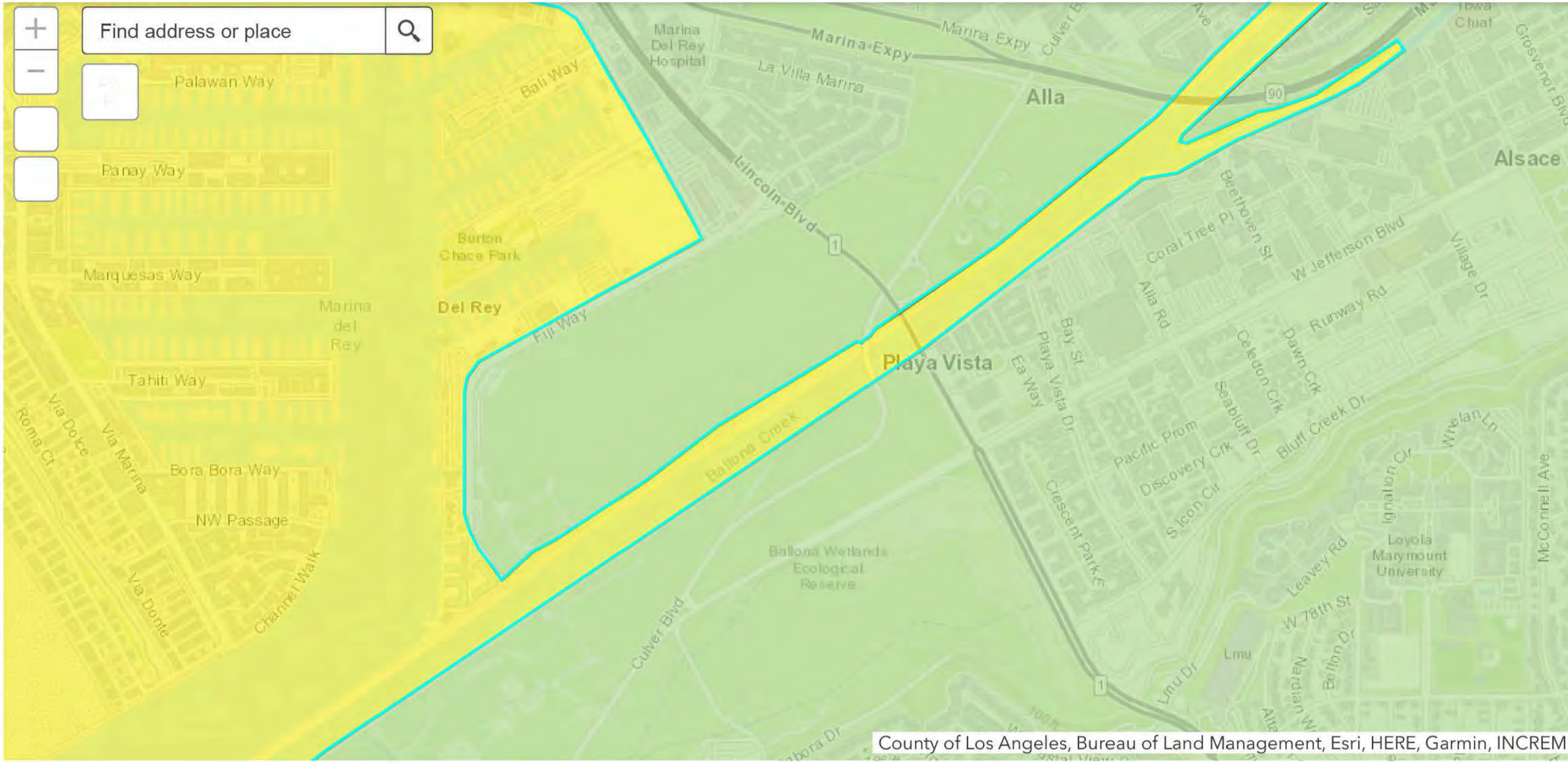
Figure 2.2.1-3

substantial damage and property loss. More than 150 tsunamis have hit California's shore since 1800 (NOAA 2023c). Many tsunamis are barely noticeable, but a few have caused fatalities and/or substantial damage in coastal California during historic times. The most destructive tsunami to occur in California in recent times occurred March 28, 1964. Several surges reaching over 20 feet high swept into Crescent City in Northern California four hours after a magnitude 9.2 earthquake in Alaska occurred. This tsunami event resulted in 12 deaths and the loss of much of the business district within Crescent City (DOC 2023e, NOAA 2023c).

The California Emergency Management Agency (CalEMA) has identified tsunami inundation hazard zones for coastal areas of the State, including the County of Los Angeles. As shown in Figure 2.2.1-4, CalEMA identified tsunami inundation zones include portions of Playa del Rey, Marina del Rey, and Venice Beach. Also, the segment of Ballona Creek as well as the Ballona Creek Bike Path within and adjacent to the project site is designated as a tsunami inundation hazard zone. CalEMA's tsunami inundation hazard zones are primarily based on inundation limits corresponding to a 975-year average return period tsunami event. These limits were extended by CalEMA to reflect potential local tsunami sources not considered in probabilistic analysis and are also modified to reflect the practical need to define limits that coincide with geographic features or city streets (DOC 2023e).

In their development of the tsunami inundation hazard mapping, staff from the California Department of Conservation (DOC) determined that a 9.3 magnitude earthquake in the Aleutian Trench off the Alaskan coastline would trigger a worst-case tsunami along the coast of Los Angeles. The areas shown within the tsunami zone map provided as Figure 2.2.1-4 would be inundated up to a maximum depth of 15 feet during this worst-case scenario event (NOAA 2023b).

Areas within the Santa Monica Bay are susceptible to the effects of far-field tsunamis from distant sources. According to Tsunami Event and Tsunami Observation records maintained by National Oceanic and Atmospheric Administration (NOAA) that are available in the NOAA Natural Hazards Viewer mapping application, there have been a number of minor far-field tsunamis that have occurred in recorded history within the Santa Monica Bay. One such example occurred in March 2011, which resulted from an earthquake that occurred 5,260 miles away in the Tohoku region of Japan. Peak amplitude of this tsunami event in Santa Monica Bay area was up to a maximum of between 0.9–1.0 meter (~2.9–3.2 feet). This event caused some minor damage to docks and some dinghies were sunk in Marina Del Rey (NOAA 2023c). Although it did not generate significant flooding in California overall, this tsunami's currents caused one death and over $100 million in property damages to 27 harbors statewide. Another recent far-field tsunami event occurred in February 2010 involving a 0.1 meter (~3.93 inches) tsunami



Tsunami Inundation Map	
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project	
07-LA-01, PM 30.16/30.74	Caltrans
EA 33880	
Sources: DOC 2023e	

Figure 2.2.1-4

that resulted from an earthquake in Chile. This event caused minor damage to docks in Marina Del Rey.

In addition to far-field tsunami (from distant sources), the Santa Monica Bay and areas within the project site are also susceptible to the effects of near-field tsunamis from sources such as a submarine (underwater) landslides and/or a large earthquakes that occur along any of the nearby off-shore faults. These faults include the Palos Verdes fault zone, the San Pedro Basin fault zone, and Santa Cruz-Santa Catalina Ridge fault zones. For example, in August 1930 a 5.2 magnitude earthquake occurred off of Santa Monica which caused a 3.05 meter (~10 foot) tsunami wave at Santa Monica (NOAA 2023c). Similar events have occurred in recorded history from local sources off the California coast including a December 1812 event that struck Santa Barbara and Ventura County coastlines. The event followed a large earthquake and was a large enough tsunami event to inundate lowland areas and cause damage to nearby ships. According to California Geological Survey (CGS), some scientists theorize that this could have resulted from a submarine landslide that was triggered by the earthquake (DOC 2015).

According to the information contained in the American Society of Civil Engineering (ASCE) Tsunami Hazard Tool online mapper, the project site contains areas within the "tsunami design zone", which are those areas determined by ASCE to be within the extent of tsunami impacts (ASCE 2023a). Areas north of the Culver Boulevard Bridge would be inundated by the tsunami event modeled in the ASCE mapper. At the center point of SR-1/Lincoln Boulevard just north of the Culver Boulevard Bridge, the data shown in the mapper indicate a 6.82-foot (MHW) inundation depth (or 11.32 feet NAVD88) (ASCE 2023a). On the east side of SR-1/Lincoln Boulevard between Fiji Way and Culver Boulevard Bridge, tsunami runup depths could range 9.58 feet (MHW) and 14.04 feet NAVD88. The data indicate that a tsunami may not be contained by the current northern levee of Ballona Creek which could result in inundation of Lincoln Boulevard south of Culver Loop and the Ballona Creek Bike Path at this location during the modeled tsunami event. Inundation depths are shown at this location to range up to about 5.09 feet MHW and 9.58 feet NAVD88. Furthermore, the ASCE data predict that in their modeled tsunami event, nearly all of Marina Del Rey would be inundated, as would coastal roadways include SR-1/Lincoln Boulevard from Culver Boulevard Bridge north to the SR-90/Marina Expressway.

The project site is located about 3 kilometer (km) (~1.86-miles) northeast of a breakwater in the Pacific Ocean, and the Ballona Creek bottom is only a few feet above mean sea level. The existence of the breakwater, offshore barrier islands, and the configuration of the continental shelf in southern California have historically provided relief from the effects of such tsunamis to the project site and vicinity. The ten largest tsunamis that occurred within the Pacific Ocean over the last century did not significantly affect the project site. Also, there is a 7-foot elevation increase in the channel's average elevation as measured from the location of the breakwater to the current location where SR-1/Lincoln Boulevard Bridge crosses over Ballona Creek. This elevation differential would further dissipate energy from open ocean waves that may diffract, refract, or reflect through the levee mouth and propagate upstream into Ballona Creek (Group Delta 2022a, MBI 2023). In conclusion, although there is always the risk of tsunami events occurring throughout coastal California at any time, the project site is physically sheltered from such effects. Therefore, Alternative 2 would not result in any substantial adverse effects related to flooding from a tsunami.

To ensure adequate vertical clearance for the replacement SR-1/Lincoln Boulevard Bridge over Ballona Creek, and as required by **MM HYD-1**, during final design the City will prepare and submit design-level hydraulic and sea level rise analyses for the proposed replacement bridge over Ballona Creek to Caltrans, as well as to the Los Angeles County Flood Control District and USACE as part of the 408 permitting process, and the California Coastal Commission during the Coastal Development Permit application process. At a minimum, the hydraulic analyses conducted during final design shall contain and/or utilize: the latest project design and the latest applicable State and Federal sea level rise guidance.

<u>Existing Risk of Seiche Events</u>

Flooding could also result from a seiche event. A seiche may occur in a semi- or fully-enclosed body of water. Seiches are typically caused when strong winds and/or rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the weather stops or moves on, the water rebounds to the other side of the enclosed area.

Seiche events could technically occur within Ballona Creek, which is a semi-enclosed water body due to oscillations created by earthquakes as well as from strong storms and wind events. Due to the low typical elevation of water within Ballona Creek it is unlikely that such an event would cause damage to the SR-1/Lincoln Boulevard Bridge or other aspects of the project site.

There are historic records of seiche events having occurred in the past within Santa Monica Bay. One such example occurred in August 1931. Although the height of the waves was not recorded, there are descriptions of "enormous waves" rolling onto the coast from Malibu to Laguna Beach. Local scientists ascribed the oscillations to seiches in the basin formed with the Channel Islands. The waves were triggered by remote storms and aggravated by the high tides. There was minimal property damage from this event, and there were recorded lifeguard rescues that needed to occur to rescue individuals that got swept into the ocean by the event (NOAA 2023c).

Also, seiches were recorded at Santa Monica following earthquakes that occurred under Santa Monica Bay in 1930, 1979, and 1989. The maximum height of these long period waves was about two feet (City of Malibu 2023a). Therefore, there is potential for a seiche to occur; however, most of the year there is plenty of adequate clearance between the water surface elevation and the bottom of the proposed bridge that no substantial adverse effects would result.

Existing Potential Flooding of the Project Vicinity From Sea Level Rise Alone

Maps of the project site from the NOAA Sea Level Rise mapper are provided in Figures 2.2.1-5 through 2.2.1-7 (NOAA 2023a).

As shown in Figure 2.2.1-5, with three feet of sea level rise portions of the BWER south of Ballona Creek and west of SR-1/Lincoln Boulevard would begin to flood. Water levels within Ballona Creek and the freshwater marsh southwest of Jefferson Boulevard and SR-1/Lincoln Boulevard would begin to rise. Under this scenario, Jefferson Boulevard would begin to flood southwest of the intersection with Culver Boulevard outside of the project site, limiting access to Playa Del Rey. However, CDFW plans to construct a new engineered levee at this location as part of the Ballona Wetlands Restoration Project, referred to in that project’s Draft EIR/EA as the “West Area B Levee”, which would provide protection from future projected sea level rise for Jefferson Boulevard (CDFW 2017a).

As shown in Figure 2.2.1-6, with five feet of sea level rise additional areas that would flood would include more of Jefferson Boulevard and Fiji Way west of the project site. The BWER would continue to flood at greater depths and at a wider footprint. SR-1/Lincoln Boulevard would also flood north of the project site in this scenario. Also, areas between the Culver Loop and the ball fields would also become inundated in this scenario.

As shown in Figure 2.2.1-7, with ten feet of sea level rise, additional areas that would flood would include: SR-1/Lincoln Boulevard north of the Culver Boulevard overpass; Culver Boulevard east of SR-1/Lincoln Boulevard; the SR-1/Lincoln Boulevard/Fiji Way intersection; and the SR-1/Lincoln Boulevard/Jefferson Boulevard intersection.

Existing Potential Flooding of the Project Vicinity From Sea Level Rise With Storm Surge

Additional mapping was also evaluated from the non-profit organization Our Coast Our Future, which provides mapping for combined scenarios in which sea level rise and a storm event have both occurred. The areas that would be inundated or at-risk in a scenario in which sea level rise 125 centimeters and a 100 year storm event occur are shown in Figure 2.2.1-8. 125 centimeters was used since this is the closet option to the USACE Intermediate Sea Level Rise value of 4.15 feet. As shown in Figure 2.2.1-8, in this scenario much of SR-1/Lincoln Boulevard from north of

NOAA Sea Level Rise Mapping – 3 Feet of Sea Level Rise	
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project	
07-LA-01, PM 30.16/30.74	Caltrans
EA 33880	
Sources: NOAA 2023a	

Figure 2.2.1-5

NOAA Sea Level Rise Mapping – 5 Feet of Sea Level Rise	
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project	
07-LA-01, PM 30.16/30.74	
EA 33880	
Sources: NOAA 2023a	

Figure 2.2.1-6

NOAA Sea Level Rise Mapping – 10 Feet of Sea Level Rise
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
07-LA-01, PM 30.16/30.74
EA 33880
Sources: NOAA 2023a

Figure 2.2.1-7

Jefferson Boulevard to Bluff Creek Drive would be inundated. Also, all of Jefferson Boulevard would be inundated west of SR-1/Lincoln Boulevard, as would all of Culver Boulevard south of Ballona Creek. In addition to roadway connections being inundated, much of the community of Playa Del Rey itself would also be inundated in this scenario. North of Culver Boulevard, SR-1/Lincoln Boulevard and surrounding areas are mapped as "flood-prone low lying".

Also, the Our Coast Our Future mapping was queried using an assumed 200 centimeters with the simultaneous occurrence of a 100 year storm event. The 200 centimeters is a little less than the 6.8 feet, which is the State of California's Medium-High Sea Level Rise value. The areas that would be inundated under this scenario are shown in Figure 2.2.1-9. As shown, all of the areas noted above would be flooded. The only additional areas that would flood in this scenario would be areas along SR-1/Lincoln Boulevard just north of Jefferson Boulevard, as well as areas east of SR-1/Lincoln Boulevard on Jefferson Boulevard.

The Our Coast Our Future mapper could not be utilized for this project site using sea level rise levels of over 200 centimeters as the mapper provided a result of "No Data" with these settings. However, in these conditions with greater amounts of sea level rise, the Ballona Creek levees would ultimately be breached and much of the communities on either side of Ballona Creek would be inundated.

<u>Existing Potential For Flooding of the Project Vicinity From High Tide Flooding</u>

As shown in Figure 2.2.1-10, areas within the project site are currently subject to recurrent or nuisance flooding from high tide events. These areas include portions of the BWER, Ballona Creek, and Fiji Ditch.

<u>Sea Level Rise Design Considerations for the Replacement SR-1/Lincoln Boulevard Bridge Over Ballona Creek</u>

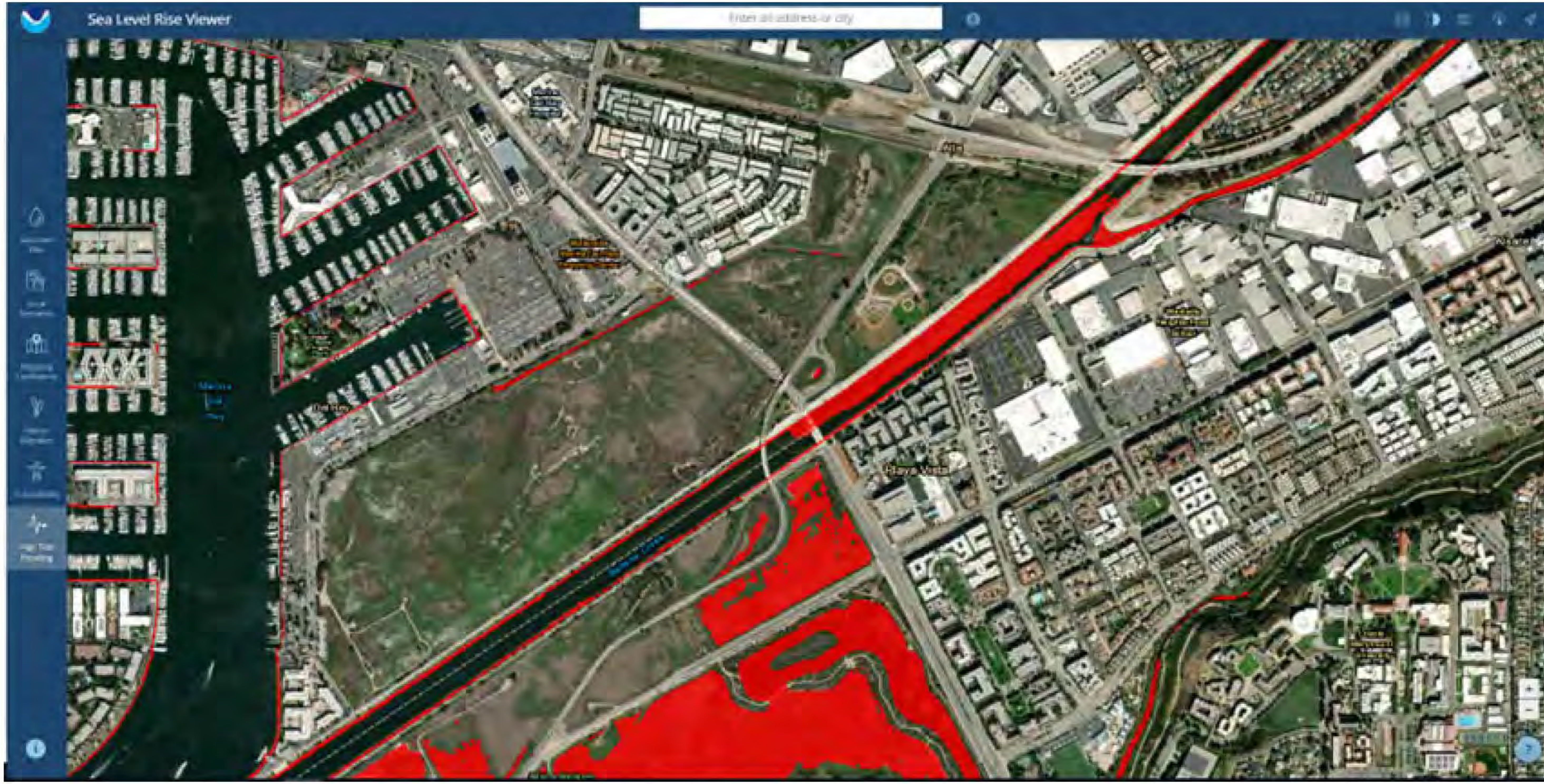
All hydraulic analysis in the Sea Level Rise Report utilized the latest sea level rise design guidance available at the time of preparation. The sea level rise design considerations were based on two design parameters: USACE requirements and State requirements (USACE 2019, California Natural Resources Agency and California Ocean Protection Council 2018). Analysis in accordance with the USACE requirements is expected to be required to comply with future Clean Water Act Section 408 permitting requirements. Analysis in accordance with the State guidance is expected to be required for State-related permitting (i.e. Caltrans, California Coastal Commission, etc.).

Our Coast Our Future – Areas Subject To Flooding With 125 cm Sea Level Rise and a 100 Year Storm Even	
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project	
07-LA-01, PM 30.16/30.74	Caltrans
EA 33880	
Sources: Our Coast Our Future 2023a	

Figure 2.2.1-8

Our Coast Our Future – Areas Subject To Flooding With 200 cm Sea Level Rise and a 100 Year Storm Event
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
07-LA-01, PM 30.16/30.74
EA 33880
Sources: Our Coast Our Future 2023a

Figure 2.2.1-9



NOAA Sea Level Rise Viewer – Areas Currently Experiencing High Tide Flooding	
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project	
07-LA-01, PM 30.16/30.74	Caltrans
EA 33880	
Sources: NOAA 2023a	

Figure 2.2.1-10

The USACE Sea-Level Change Curve Calculator is an online sea-level change. At the time of the preparation of the Sea Level Rise Report, the latest version was Version 2022.60. The Sea Level Rise Report used the USACE 2013 dataset as well as the Santa Monica, California Gage 9410840 for the year 2100, which is the furthest out in time for which the projections are valid. The calculator indicates that relative sea-level change for the intermediate projection is 4.15 feet relative to the NAVD88 datum. This value is used for all modeling with the USACE Sea Level Rise boundary condition. It is important to note that the USACE projections include the local rate of vertical land movement. The estimated USACE relative sea-level change projections for the Santa Monica Gage are shown in Figure 2.2.1-11.

The values used for sea level change/sea level rise in the Sea Level Rise Report are provided in Table 2.2.1-2.

Table 2.2.1-2 – Sea Level Change/Rise Values by Agency for Santa Monica, CA

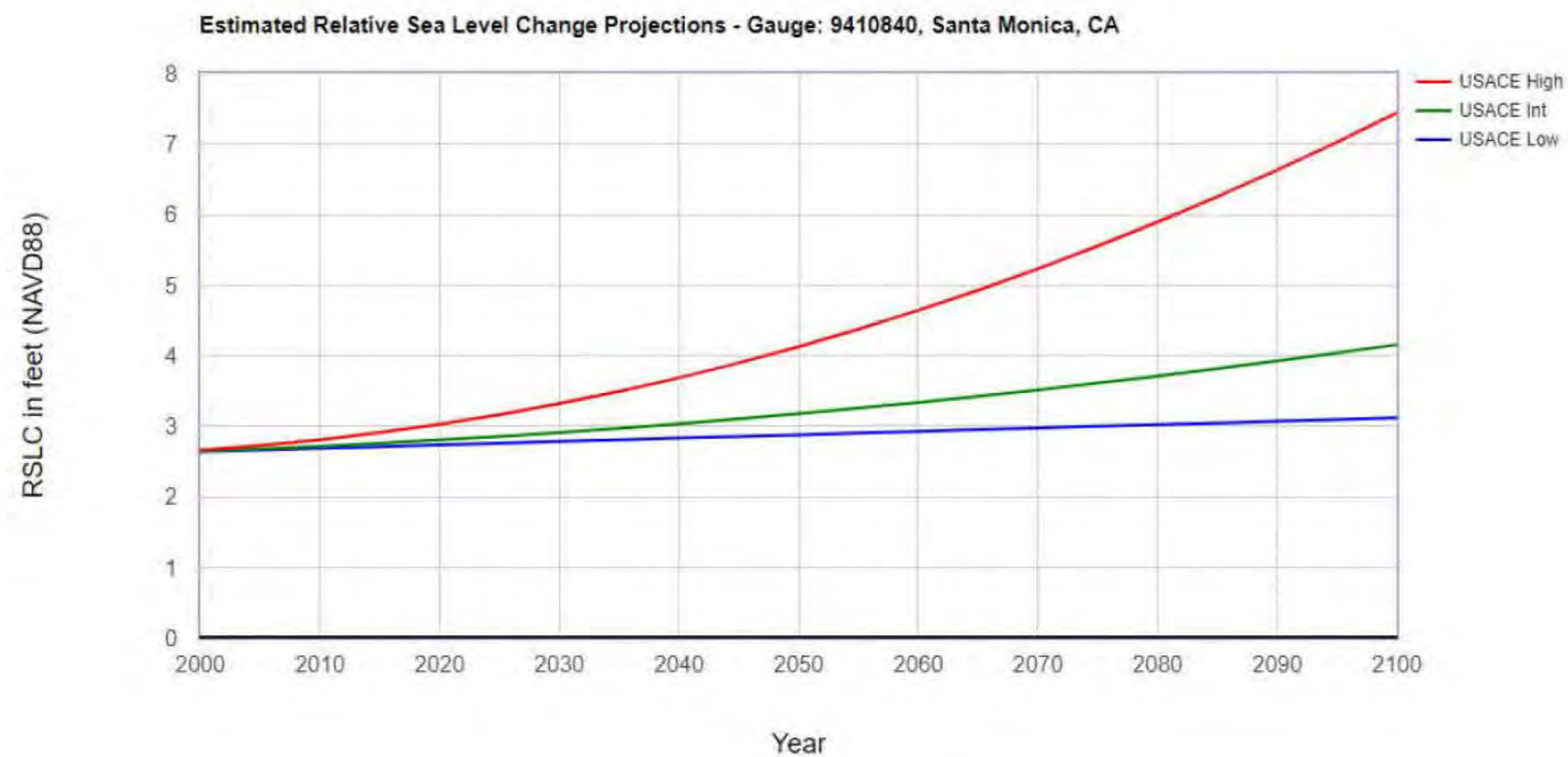
Agency	**USACE**	**California**	**California**	**California**
Criterion	Intermediate	Low	Medium-High	Extreme
Value	4.15	3.30	6.80	10.0

USACE: U.S. Army Corps of Engineers.
Source: MBI 2023.

<u>Hydraulic Analysis of Existing SR-1/Lincoln Boulevard Bridge Over Ballona Creek</u>

All hydraulic modeling in the Sea Level Rise Report was conducted using the HEC-RAS numerical model developed initially by ESA for the adjacent Ballona Wetlands Restoration Project (2017). The HEC-RAS modeling conducted as part of the Sea Level Rise Report consisted of two discharges (USACE and QCAP), two starting water surface elevations (MSL and Mean Higher High Water (MHHW), four Sea Level Rise criteria (USACE Intermediate, and California [2018] Low, Medium-High, and H++), and two bridge conditions (existing conditions and Alternative 2).

The combination of modeling scenarios used in the Sea Level Rise Report resulted in 32 discrete model results. All HEC-RAS model files can be found in Appendix C of the Sea Level Rise Report. Rather than evaluating each of these 32 scenarios, the Sea Level Rise Report instead focused on the design limits of the SR-1/Lincoln Boulevard Bridge. Part of the reason for not discussing all of the simulation results in the Sea Level Rise Report is because some simulations produced less conservative results than other simulations. For example, simulations that utilized MSL produced lower changes in velocity, water surface elevation, and/or greater freeboard than simulations that utilized MHHW. Other simulations were not discussed in the Sea Level Rise Report because the Ballona Creek Levees would be overtopped using those assumptions. For



USACE Sea Level Change Projections for Santa Monica, CA	
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project	
07-LA-01, PM 30.16/30.74	Caltrans
EA 33880	
Sources: Michael Baker International 2023a	

Figure 2.2.1-11

scenarios in which the Ballona Creek levees would be overtopped, the results would be both not valid (that is, the cross sections would not contain the discharge). In these more extreme scenarios, portions of SR-1/Lincoln Boulevard and Culver Boulevard would be inundated as well as adjacent areas including the BWER, Marina Del Rey, and the roads which provide access to these areas. The 32 model runs/scenarios are shown below in Table 2.2.1-3.

Table 2.2.1-3 – Validity of HEC-RAS Model Runs From the Sea Level Rise Report

E/ P	Plan #	Plan Name in HEC-RAS	Discharge	Initial Elevation	Sea Level Rise	Change in WSE (ft) [NAVD88]	Is the analysis valid?
E	1	EX-USACE-MHHW-USACE	USACE	MHHW	USACE - Int	9.39	YES
E	2	EX-USACE-MHHW-Low	USACE	MHHW	CA - Low	8.54	YES
E	3	EX-USACE-MHHW-MH	USACE	MHHW	CA - M-H	12.04	NO
E	4	EX-USACE-MHHW-HH	USACE	MHHW	CA - H++	15.24	NO
E	5	EX-USACE-MSL-USACE	USACE	MSL	USACE - Int	6.75	YES
E	6	EX-USACE-MSL-Low	USACE	MSL	CA - Low	5.90	YES
E	7	EX-USACE-MSL-MH	USACE	MSL	CA - M-H	9.40	YES
E	8	EX-USACE-MSL-HH	USACE	MSL	CA - H++	12.6	NO
E	9	EX-QCAP-MHHW-USACE	QCAP	MHHW	USACE - Int	9.39	YES
E	10	EX-QCAP-MHHW-Low	QCAP	MHHW	CA - Low	8.54	YES
E	11	EX-QCAP-MHHW-MH	QCAP	MHHW	CA - M-H	12.04	NO
E	12	EX-QCAP-MHHW-HH	QCAP	MHHW	CA - H++	15.24	NO
E	13	EX-QCAP-MSL-USACE	QCAP	MSL	USACE - Int	6.75	YES
E	14	EX-QCAP-MSL-Low	QCAP	MSL	CA - Low	5.90	YES
E	15	EX-QCAP-MSL-MH	QCAP	MSL	CA - M-H	9.40	YES
E	16	EX-QCAP-MSL-HH	QCAP	MSL	CA - H++	12.60	NO
P	17	PR-USACE-MHHW-USACE	USACE	MHHW	USACE - Int	9.39	YES
P	18	PR-USACE-MHHW-Low	USACE	MHHW	CA - Low	8.54	YES
P	19	PR-USACE-MHHW-MH	USACE	MHHW	CA - M-H	12.04	NO
P	20	PR-USACE-MHHW-HH	USACE	MHHW	CA - H++	15.24	NO
P	21	PR-USACE-MSL-USACE	USACE	MSL	USACE - Int	6.75	YES
P	22	PR-USACE-MSL-Low	USACE	MSL	CA - Low	5.90	YES
P	23	PR-USACE-MSL-MH	USACE	MSL	CA - M-H	9.40	YES

E/ P	Plan #	Plan Name in HEC-RAS	Discharge	Initial Elevation	Sea Level Rise	Change in WSE (ft) [NAVD88]	Is the analysis valid?
P	24	PR-USACE-MSL-HH	USACE	MSL	CA - H++	12.60	NO
P	25	PR-QCAP-MHHW-USACE	QCAP	MHHW	USACE - Int	9.39	YES
P	26	PR-QCAP-MHHW-Low	QCAP	MHHW	CA - Low	8.54	YES
P	27	PR-QCAP-MHHW-MH	QCAP	MHHW	CA - M-H	12.04	NO
P	28	PR-QCAP-MHHW-HH	QCAP	MHHW	CA - H++	15.24	NO
P	29	PR-QCAP-MSL-USACE	QCAP	MSL	USACE - Int	6.75	YES
P	30	PR-QCAP-MSL-Low	QCAP	MSL	CA - Low	5.90	YES
P	31	PR-QCAP-MSL-MH	QCAP	MSL	CA - M-H	9.40	YES
P	32	PR-QCAP-MSL-HH	QCAP	MSL	CA - H++	12.60	NO

Source: MBI 2022

E: Existing; P: Proposed

<u>Sea-Level Rise Effects on Channel Hydraulics</u>

As shown in Table 2.2.1-4, increasing the magnitude of sea level rise assumed in future conditions while maintaining the same discharge and initial elevation yields no more than an increase of 0.1 foot per second (fps) in velocity and 0.3 feet in WSE in all scenarios considered. Because of these insignificant differences observed in both the existing conditions and proposed conditions under Alternative 2 for various future sea level rise scenarios, future aggradation[25], and degradation[26] effects to channel hydraulics are not anticipated to be substantial as a result of implementing Alternative 2.

However, hydraulic analyses prepared for the Ballona Wetland Restoration Project does indicate that long-term aggradation of the channel bed within Ballona Creek has occurred since 1961 (CDFW 2017a). That is, for the purposes of design of the replacement SR-1/Lincoln Boulevard bridge over Ballona Creek, the Sea Level Rise Report determined that additional and/or accelerated aggradation is expected to gradually decrease the capacity of Ballona Creek channel over time, fostering overtopping of the levees at lower sea level rise magnitudes and/or at less frequent discharge events than the USACE design discharge.

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[25] Channel aggradation is a term used in geology for the increase in land elevation within a channel or river system that occurs due to the deposition of sediment.

[26] Channel degradation is a term used in geology for the decrease in land elevation within a channel or river system that may occur due to scour, erosion, and other phenomena. Degradation is the opposite of aggradation.

Table 2.2.1-4 – Channel Hydraulic Effects of the Bridge Proposed By Alternative 2

The Sea Level Rise Report recommended that the design of the replacement SR-1/Lincoln Boulevard Bridge over Ballona Creek be prepared using the most conservative assumptions for future hydrologic conditions that yielded valid hydraulic analyses—that is, scenarios considering the QCAP design discharge of 51,240 cubic fps, the MSL initial elevation of 2.6 feet, and the California Medium-High sea level rise scenario of 6.8 feet.

Groundwater:

Research conducted as part of the preparation of the Project’s SPGRs and Advanced Planning Studies indicates that water surface elevations in the Ballona Creek channel typically vary from roughly 2 feet to 5 feet (MSL), depending in part on tidal fluctuations (Ground Delta 2022a, 2022b; CNS 2022a).

It should be noted that groundwater levels within the project site are closely related to the water surface elevation within Ballona Creek. Floods within the channel may cause the groundwater levels to temporarily rise within the surrounding levees, although the concrete armor on the channel walls may increase the lag time in groundwater response. Groundwater levels may also fluctuate over time throughout the site due to changes in the water surface elevation and flow within the creek, as well as variations in rainfall, irrigation, or site drainage conditions (CNS 2022a).

According to a review of the California Department of Conservation’s Well Finder mapping application as well as aerial imagery, no groundwater production facilities occur within the project site such as wells. Furthermore, there are no current infiltration basins or other related facilities within the project site.

Currently, the project site contains 8.39 acres of total existing impervious area (Psomas 2023a).

Environmental Consequences

Alternative 1 – No Build Alternative:

Construction Effects

Since Alternative 1 would involve no construction, there would be no short-term effects related to hydrology or flooding. Under Alternative 1, there would be no temporary construction within Ballona Creek; therefore, there would be no floodplain effects related to temporary cofferdams or similar construction measures in Ballona Creek under Alternative 1.

Operational Effects

Overall, Alternative 1 would involve no alterations to the existing hydrology or floodplain characteristics of the project site. Alternative 1 would result in no change to the amount of impervious surface within the project site, nor would the amount of storm water change under Alternative 1. Alternative 1 would not include the replacement of the existing SR-1/Lincoln Boulevard bridge over Ballona Creek at a higher elevation accounting for future projected sea level rise.

Cumulative Effects

Since Alternative 1 would involve no construction or operational effects, Alternative 1 has no potential to contribute to cumulative effects related to hydrology and flooding.

Alternative 2 – Base Alternative

Construction Effects

Temporary Changes To Drainage Characteristics and Infrastructure in the Project Site:

During construction of Alternative 2, the existing topography throughout the project site would be altered through grading or through the deposition of fill to achieve the proposed profile/vertical alignment of SR-1/Lincoln Boulevard within the project site across the 22.41-acre[27] overall impact footprint for Alternative 2 (Psomas 2024a).

Also, many components of the existing storm water drainage infrastructure within the project site would be removed during construction as described below.

As specified in **MM WQ-1**, the Contractor shall develop a SWPPP that would specify appropriate best management practices to avoid and minimize storm water pollution by construction activities. The SWPPP would also specify temporary catchment and conveyance systems to adequately capture and convey storm water during construction. The Contractor shall implement the SWPPP throughout construction. Minimum SWPPP BMPs anticipated include temporary hydroseed, temporary fiber rolls, street sweeping, tracking control at job-site entrances, and temporary drainage inlet protection. The SWPPP would ensure that storm water

[27] A 22.41-acre overall impact footprint was determined by adding 12.087 acres of permanent impacts and 10.317 acres of temporary impacts that are identified within the Natural Environment Study (NES) (Psomas 2024a). Please note that the total Disturbed Surface Area (DSA) within the Storm Water Data Report (SWDR) has a lower acreage given that DSA was calculated in a different manner in the SWDR than how impacts were calculated in the NES.

that is generated from the project site is intercepted, conveyed, treated (as required), and outlet to avoid flooding, ponding, and other related issues.

Temporary Cofferdams and Flood Risk

During construction of Alternative 2, temporary cofferdams would be installed and used to create a work area within Ballona Creek in areas where demolition of the existing piers and installation of new piers would occur. A cofferdam is a watertight enclosure from which water is pumped to expose the bed of a body of water (e.g., Ballona Creek) so that construction can occur within that limited area.

The temporary cofferdams within Ballona Creek that are needed to build Alternative 2 would result in a temporary reduction in the flow capacity of Ballona Creek. Also, the cofferdams would create obstructions to flow within Ballona Creek temporarily during certain points in the construction period when they are being utilized.

The temporary cofferdams would also increase the potential for the buildup of trash and debris at the bridge temporarily during construction.

To the maximum extent feasible, the use of cofferdams in Ballona Creek would be limited to the dry season. As specified in **MM HYD-2,** during final design once the sizes and locations of cofferdams are determined, hydraulic analysis shall be conducted of the proposed cofferdams to determine requirements for flood conveyance, scour avoidance, timing, and sequencing of the use of cofferdams within Ballona Creek. The intent of this measure is to ensure that adequate flow capacity is maintained within Ballona Creek to prevent flood risks. This information will also be required as part of the USACE Section 408 permitting process and may also be required by the California Coastal Commission, the LARWQCB, and CDFW as part of the permitting that would be required for Alternative 2.

Also, as required by **MM HYD-3,** prior to construction the Contractor shall develop a Construction Management Plan that shall include detailed phasing of work within Ballona Creek. The Construction Management Plan shall also include hydraulic analyses, as needed, to confirm that work activities would not substantially inhibit downstream flows within Ballona Creek.

Temporary Trestles and Flood Risk

As noted in the project description for Alternative 2 provided in Chapter 1, Proposed Project, a pile driving rig would be utilized for construction that would either be located on a barge or on a temporary trestle platform that is advanced along the bridge by using a combination of temporary piles and the permanent Cast In Steel Shell (CISS) piles as they are built for the replacement SR-1/Lincoln Boulevard Bridge over Ballona Creek. Since a barge could be moved out of Ballona

Creek prior to a major storm event, the use of a barge during construction would result in minimal floodplain risk. It is assumed that any temporary piles that may be used would be enclosed within the cofferdams noted above, so floodplain risks associated with temporary piles would result in no additional floodplain risks beyond that which is discussed above for the temporary cofferdams.

Groundwater

During construction, water would be utilized from hydrants and/or other existing potable water lateral lines for construction activities as well as to temporarily irrigate landscaping until it establishes (e.g., 1–2 years maximum after planting). The Los Angeles Department of Water and Power (LADWP) procures anywhere from 4 to 17 percent of its water each year from groundwater sources, depending on the year. Therefore, construction of Alternative 2 would result in a temporary increase in demand for groundwater supplies. However, relative to the ~500,000 acre feet of water LADWP delivers each year, the amount of water required for construction would be minimal.

During construction, Alternative 2 would require the temporary dewatering of work areas during grading and other excavations or work within areas below the water table. Water extracted through dewatering would be treated and deposited back into Ballona Creek, Fiji Ditch, or sanitary sewer system.

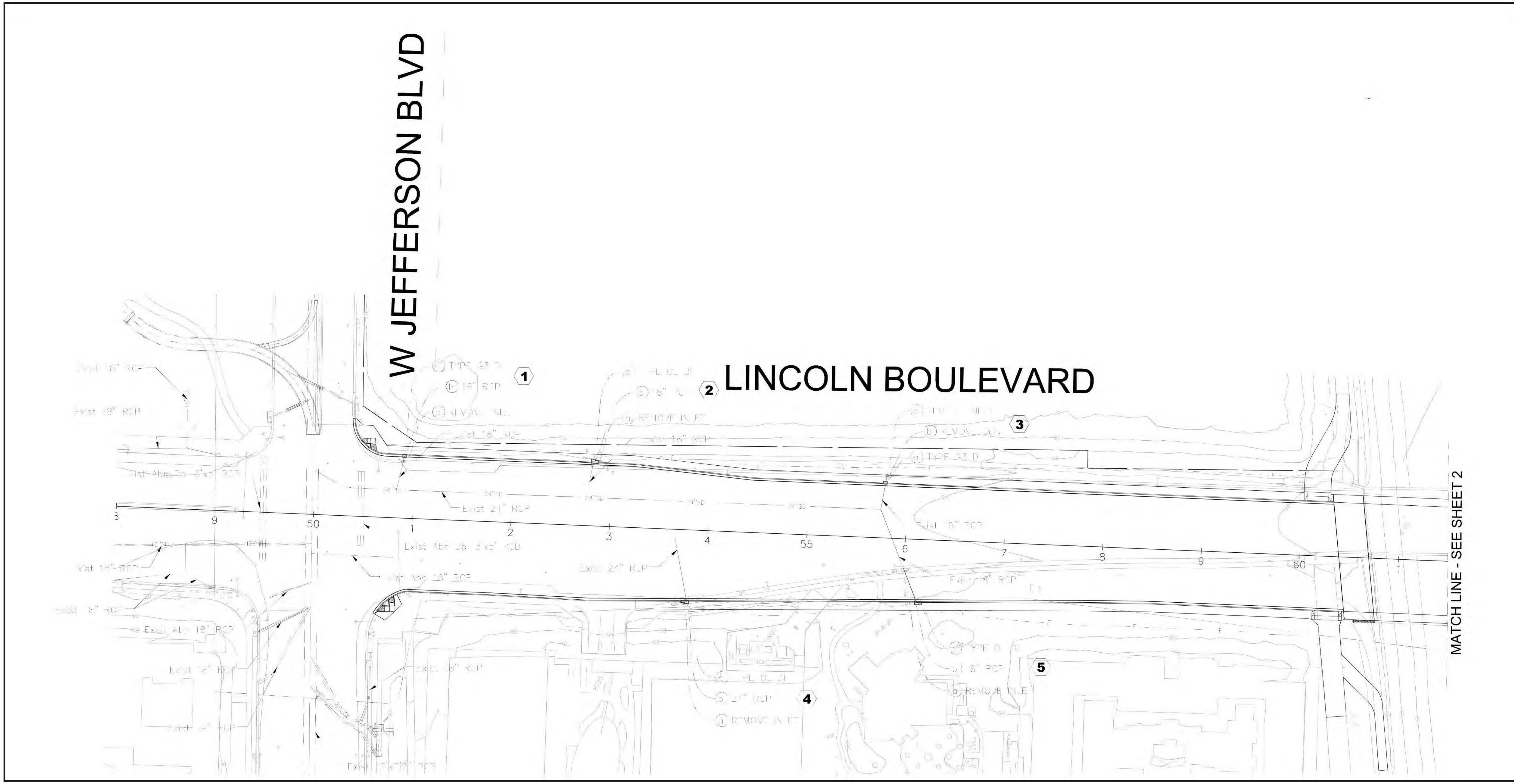
<u>Operational Effects</u>

Changes To Drainage Characteristics and Infrastructure in the Project Site

Alternative 2 would result in changes from the existing topography of some portions of the project site, which would be altered through grading or through the deposition of fill to achieve the proposed profile/vertical alignment of SR-1/Lincoln Boulevard within the project site.

The amount of impervious surfaces would increase from 8.39 acres in existing conditions to 10.65 acres of impervious surfaces with Alternative 2 (Psomas 2023a). This would result in a 2.59-acre (21 percent) increase in runoff from the project site; however, mitigation is specified below requiring the capture and temporary retention or detention of any additional storm water generated by the Project to ensure no substantial downstream effects related to increased flows.

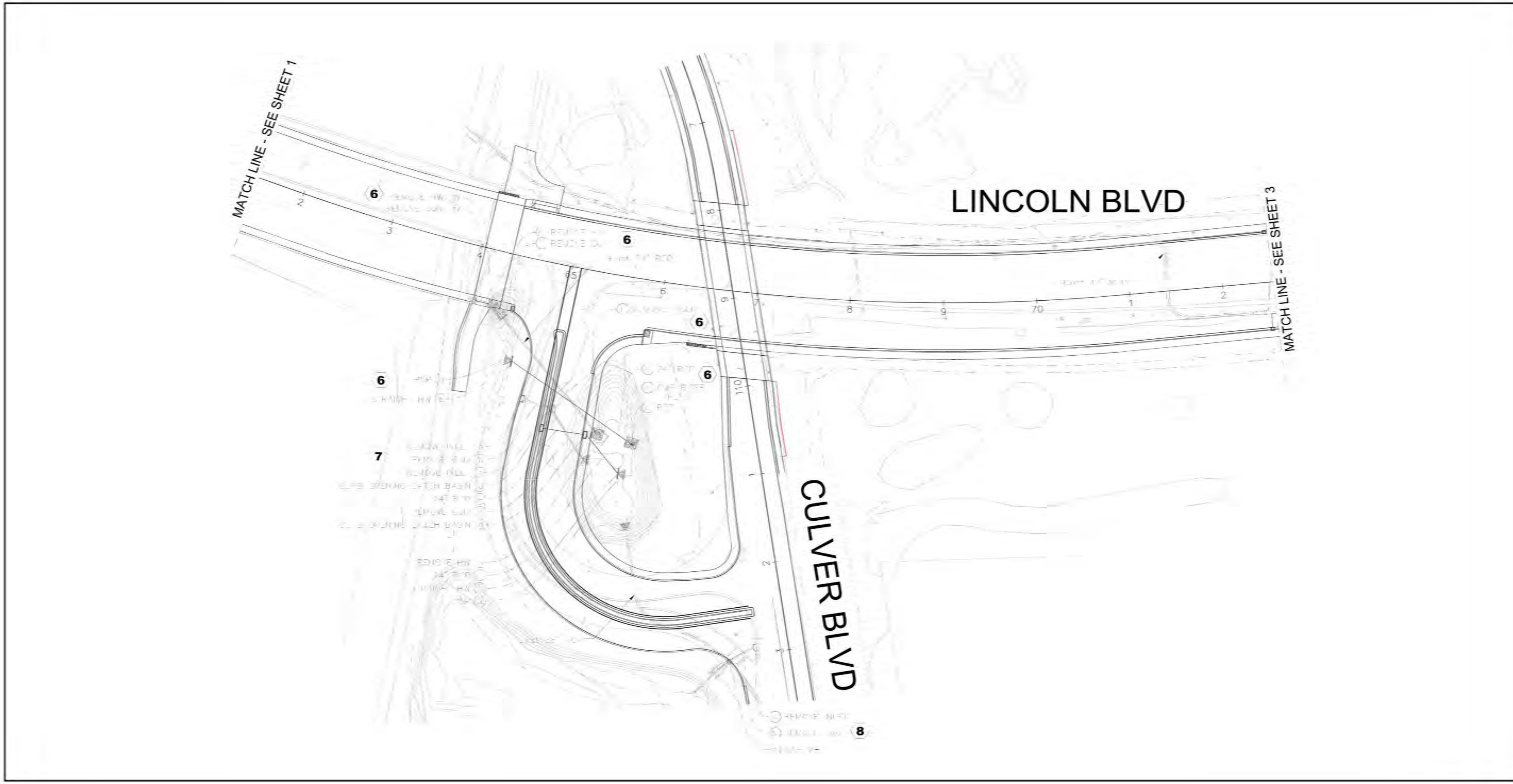
Changes to the drainage system within the project site that would occur under Alternative 2 are shown in Figure 2.2.1-12. Existing drainage facilities that are within the project site would be removed including existing curbs and gutters, storm water inlets, storm water pipes between Fiji Ditch in the north and Jefferson Boulevard in the south.



Sheet 1 of 3

Drainage Plans for Alternative 2	
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project	
07-LA-01, PM 30.16/30.74	Caltrans
EA 33880	
Sources: Psomas 2023a	

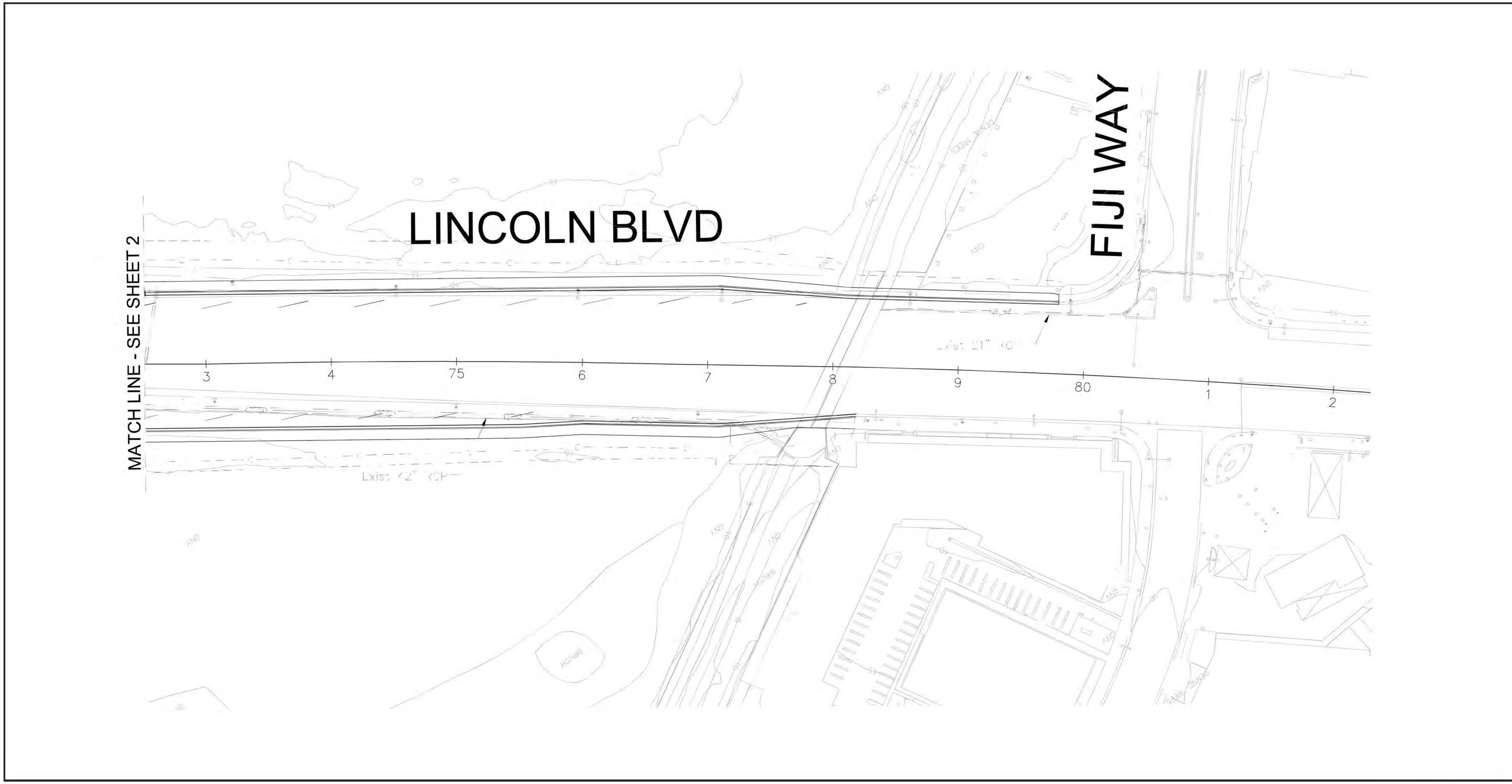
Figure 2.2.1-12



Sheet 2 of 3

Drainage Plans for Alternative 2	
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project	
07-LA-01, PM 30.16/30.74	Caltrans
EA 33880	
Sources: Psomas 2023a	

Figure 2.2.1-12



Sheet 3 of 3

Drainage Plans for Alternative 2
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
07-LA-01, PM 30.16/30.74
EA 33880
Sources: Psomas 2023a

Figure 2.2.1-12

The existing drainage facilities within the Culver Loop area of the project site would be retrofitted, including new storm water inlets and pipes. Also, a detention basin would be constructed east of SR-1/Lincoln Boulevard between the Culver Loop ramp and Culver Boulevard that would receive flows from the Culver Loop area. The detention basin would contain outlet via a raised standpipe that would flow into a 24-inch pipe that would flow south to Ballona Creek. A new (replacement) storm water outlet from the basin would be installed that would include a new headwall and rock slope protection.

The existing storm water pipe, outlet, head wall, and tidal gate flowing from the existing Culver Loop to Ballona Creek would be replaced along a slightly different alignment as mentioned above. Also, the existing storm water inlet and drain pipe on the southeast end of the Culver Loop near the intersection with Culver Boulevard would be removed. This would reduce flows of water to the low-lying area southeast of the Culver Loop.

Storm water from the replacement Ballona Creek Bridge over Ballona Creek would be captured and treated before it is outlet into Ballona Creek or elsewhere as required by **MM WQ-5**.

A portion of the existing 42-inch storm drain that is located on the east side of SR-1/Lincoln Boulevard would need to be relocated as part of Alternative 2, along with its outlet to Fiji Ditch in the north.

Changes To Hydrology-Related Attributes of the SR-1/Lincoln Boulevard Bridge Over Ballona Creek

Under Alternative 2, the SR-1/Lincoln Boulevard Bridge over Ballona Creek would be rebuilt as a three-bent structure with two pier groups. Currently, there are three pier groups. The circular pier groups would be 111.5 feet apart. Each pier would be 5.5 feet wide. The deck would be vertically curved with the low chord ranging from 23.6 to 25.1 feet, and a high chord ranging from 28.6 to 30.2 feet.

As shown in Table 1-1 which is provided in Chapter 1, Proposed Project, the total square footage of the proposed piers within Ballona Creek would be 792 inches, which is a 19.7 percent decrease from the 987 square feet of existing footings and pier walls that occur within the channel. Therefore, the revised bridge supports in Ballona Creek are not anticipated to increase potential for flooding since there would be less obstruction to flow with Alternative 2 than in existing conditions.

Hydraulic Modeling of Existing and Proposed SR-1/Lincoln Boulevard Bridge

The existing Ballona Creek channel hydraulics and the conditions that would result from Alternative 2 on channel hydraulics are summarized in Table 2.2.1-4 above. Comparative information is provided in the table including the existing and proposed velocities and water surface elevations (WSE) for different events.

For all scenarios examined, the average difference in velocity between existing conditions and conditions under Alternative 2 is +0.01 fps. That is, all valid hydraulic analyses show that the proposed bridge condition under Alternative 2 would have negligible effects on velocity of water moving in the channel compared to the existing bridge condition.

Table 2.2.1-4 also provides the anticipated changes in water surface elevation in NAVD88 from existing to Alternative 2 conditions for the cross sections in the vicinity of the bridge. For all scenarios examined, the difference in WSE ranged from zero to a decrease of 0.02 feet. Therefore, all valid hydraulic analyses show that Alternative 2 would have a negligible effect on the depth of water in Ballona Creek when compared to the existing bridge condition.

Potential Flooding

The project site is at risk for flooding in the event that Ballona Creek were to overtop its levees. The project site is also at risk of flooding from more infrequent events such as tsunami and seiche events, and from long-term causes like sea level rise. More information on existing flood risks is provided earlier in this chapter.

Although Alternative 2 would increase impervious surface within the project site, Alternative 2 would not increase the amount of storm water within Ballona Creek during peak storm events when compared to existing conditions as storm water catchment and detention systems would be implemented to mimic existing flows from the project site. More information on this topic is provided below in the Groundwater section.

Alternative 2 would have fewer piers in the channel that would be spread further apart, allowing for less potential obstruction of flow within the channel from Alternative 2 once built.

Effects of sea level rise on the new bridge under Alternative 2 have been minimized by constructing the bridge at a higher elevation than the current bridge. During preliminary design, hydraulic modeling has been conducted to determine the appropriate minimum elevation for the bridge based on modeled storm water flows in the creek, various sea level rise projections, and other factors such as storm surge (MBI 2023). If CDFW does not end up implementing flood protection levees that are called for in the Ballona Wetlands Restoration Project, then flooding of SR-1/Lincoln Boulevard, Jefferson Boulevard, Fiji Way, and other portions of the project site and nearby vicinity would occur.

Groundwater

The amount of impervious surfaces would increase from 8.39 acres in existing conditions to 10.65 acres of impervious surfaces with Alternative 2 (Psomas 2023a). This would result in a 2.59-acre (21 percent) increase in runoff from the project site. Therefore, Alternative 2 would result in decreased groundwater infiltration without mitigation.

To minimize effects to groundwater recharge and groundwater supplies, **MM HYD-4** would be implemented requiring that the increased runoff caused by Alternative 2 would be captured and then detained or retained using storm water best management practices such as swales, underground infiltration chambers, basins, tree wells, or other means. These measures would be specified during final design at the same time that roadway, grading, and drainage plans are being finalized. Implementation of **MM HYD-4** would minimize effects to groundwater recharge and would also ensure that there are substantial increases in the rate or amount of runoff coming from the project site.

Alternative 2 would not require the direct extraction of any groundwater for use as a water supply. Irrigation to planted areas would be terminated approximately two years after planting.

Impeding or Redirecting of Storm Water Flows

Within Ballona Creek, Alternative 2 would result in the same Ballona Creek channel cross-section as occurs in existing conditions. The only exception is that there would only be two piers supporting the new bridge instead of the three piers configuration that supports the existing bridge. This would result in less potential for the bridge structure to impede or redirect storm flows from flowing west to the Pacific Ocean.

Alternative 2 would result in increased impervious surface and storm water generation; however, as noted above, additional storm water would be captured and detained or retained, which would avoid increased storm water flows emanating from the project site.

<u>Cumulative Effects</u>

Other cumulative projects in the vicinity of the project site would be required to implement storm water BMPs during construction and operation, similar to the requirements assumed for Alternative 2. Therefore, effects related to hydrology and floodplain from these cumulative projects would not be substantial in combination with Alternative 2.

Downstream flooding within the BWER is assumed as part of the Ballona Wetlands Restoration Project, which would include flood protection levees and intentionally floodable areas.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would not change any construction work activities within Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2A would involve less ground disturbance and vegetation removal within a small portion of the project site that is west of SR-1/Lincoln Boulevard and south of Fiji Ditch and north of Culver Boulevard. This would result in a minor temporary decrease in the amount of storm water generated from this area of the project site. Otherwise, the construction effects of Alternative 2A related to hydrology and floodplain would be the same as for Alternative 2.

Operational Effects

Alternative 2A would not change any effects related to Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2A would result in the same amount of impervious surface coverage within the project site as would result from Alternative 2. The primary difference between these two alternatives is that Alternative 2A would include a retaining wall that would reduce temporary ground disturbance within the BWER. In contrast, Alternative 2 would not build a retaining wall and would instead re-grade the area west of SR-1/Lincoln Boulevard so that it is a consistent 2:1 slope leading down to the roadway with native landscaping. Alternative 2A would require the installation of backdrains, brow ditches, and similar best practices to ensure proper drainage and integrity of the proposed retaining wall. In general, the amount of storm water generated by Alternative 2A once built would be the same as for Alternative 2. Alternative 2A would convey storm water flows in the same direction of flow and in the same general quantities as proposed for Alternative 2. Otherwise, Alternative 2A would not result in any additional changes related to hydrology or floodplain when compared to Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to hydrology and flooding would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would not change any construction work activities within Ballona Creek when compared to Alternative 2, but would reduce construction activities within Fiji Ditch. Otherwise, the construction effects of Alternative 2A related to hydrology and floodplain would be the same as for Alternative 2.

Operational Effects

Alternative 2B would not change any effects related to Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. The cantilevered sidewalks at Fiji Ditch would reduce permanent effects to this drainage feature. Otherwise, Alternative 2B would not result in any additional changes related to hydrology or floodplain when compared to Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to hydrology and flooding would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would involve a greater amount of ground disturbance and vegetation removal within a small portion of the project site near the existing Culver Boulevard bridge on both sides of SR-1/Lincoln Boulevard. This would result in a minor temporary increase in the amount of storm water generated from this area of the project site. Otherwise, the construction effects of Alternative 2A related to hydrology and floodplain would be the same as for Alternative 2.

Operational Effects

Alternative 2C would not change any effects related to Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2C would result in a wider bridge than is proposed by Alternative 2, which would generate additional runoff; however, any additional runoff would be captured and retained or detained so the wider bridge would not result in any new substantial adverse effects. Otherwise, Alternative 2C would not result in any additional changes related to hydrology or floodplain when compared to Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to hydrology and flooding would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

<u>Construction Effects</u>

Alternative 2D would involve a greater amount of ground disturbance and vegetation removal within a small portion of the project site near the existing Culver Boulevard bridge west of SR-1/Lincoln Boulevard. This would result in a minor temporary increase in the amount of storm water generated from this area of the project site. Otherwise, the construction effects of Alternative 2D related to hydrology and floodplain would be the same as for Alternative 2.

<u>Operational Effects</u>

Alternative 2D would not change any effects related to Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2D would result in an additional bicycle/pedestrian ramp that is not included in Alternative 2, which would result in additional impervious surface that would generate additional runoff. However, any additional runoff would be captured and retained or detained so the new ramp would not result in any new substantial adverse effects. Otherwise, Alternative 2D would not result in any additional changes related to hydrology or floodplain when compared to Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2D, cumulative effects related to hydrology and flooding would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM HYD-1**: To ensure adequate vertical clearance from current and future storm water flows within the Creek, during final design the City will prepare and submit design-level hydraulic and sea level rise analyses for the proposed replacement bridge over Ballona Creek. The hydraulic and sea level rise analyses shall be submitted to Caltrans for review as well as to the Los Angeles County Flood Control District and Army Corps of Engineers as part of the 408 permitting process, and the California Coastal Commission during the Coastal Development Permit application process. To confirm the minimum freeboard needed for the bridge, the hydraulic analyses conducted during final design shall contain and/or utilize: the project design and the latest applicable State and Federal sea level rise guidance.
- **MM HYD-2:** During final design, once the sizes and locations of cofferdams are determined, the City shall conduct hydraulic analyses of the proposed cofferdams to

determine requirements for flood conveyance, scour avoidance, timing, and sequencing of the use of cofferdams within Ballona Creek.

- **MM HYD-3:** Prior to construction the Contractor shall develop a Construction Management Plan that shall include detailed phasing of work within Ballona Creek. The Construction Management Plan shall also include hydraulic analyses, as needed, to confirm that work activities would not substantially inhibit downstream flows within Ballona Creek.
- **MM HYD-4:** Increased runoff from the project site would be captured and then detained or retained using storm water best management practices such as swales, underground infiltration chambers, basins, tree wells, or other means. These measures would be specified during final design at the same time that roadway, grading, and drainage plans are being finalized. Also, runoff from the bridge deck of the Ballona Creek bridge would be captured and piped to either side of the bridge for treatment.

2.2.2 Water Quality and Storm Water Runoff

Regulatory Setting

Federal Requirements

Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source[28] unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are CWA sections relevant to the Project:

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

Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the State that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).

Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).

Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

[28] A point source is any discrete conveyance such as a pipe or a man-made ditch.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (USEPA) Section 404 (b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the USEPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent[29] standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination for the document is included in Chapter 2.3, Biological Resources.

State Requirements

Porter-Cologne Water Quality Control Act

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

The State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial

[29] The U.S. EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable Regional Water Quality Control Boards' Basin Plan. In California, Regional Water Quality Control Boards s designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then State-listed in accordance with CWA Section 303(d). If a State determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards and an allocation of that amount to the pollutant's sources. Water quality standards are set by the California Regional Water Quality Control Boards, which identifies the uses for each waterbody (e.g., drinking water supply, contact recreation [swimming], and aquatic life support [fishing]), and the scientific data to support that use. A TMDL is the sum of allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure the waterbody can be used for the purposes the State has designated. The calculation must also account for seasonal variation in water quality. The CWA, Section 303, establishes the water quality standards and TMDL programs.

<u>State Water Resources Control Board and Regional Water Quality Control Boards</u>

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of Statewide application, and oversees water quality functions throughout the State by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollutant Discharge Elimination System (NPDES) Program

<u>Municipal Separate Storm Sewer Systems (MS4)</u>

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including MS4s. An MS4 is defined as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a State, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water." The SWRCB has identified the Department as an owner/operator of an MS4 under federal regulations. The Department's MS4 permit covers all Department rights-of-way, properties, facilities, and activities in the State. The SWRCB or the Regional Water Quality Control Boards issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

The Department's MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012, and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014), and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

1. The Department must comply with the requirements of the Construction General Permit (see below);
2. The Department must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, the Department developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within the Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed Project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

<u>Construction General Permit</u>

The Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009, and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012) would be applicable to the Project. The permit regulates storm water discharges from construction sites that result in a disturbed soil area of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the Regional Water Quality Control Boards. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with the Department's SWMP and Standard Specifications, a Water Pollution Control Program is necessary for projects with disturbed soil area less than one acre. As discussed in the Project's Storm Water Data Report, the Project is a Risk Level 1.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will be in compliance with State water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate Regional Water Quality Control Board, dependent on the project location, and are required before the USACE issues a 404 permit.

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

Local

Los Angeles County Municipal Separate Storm Sewer System Permit

The current Los Angeles County MS4 Permit became effective on December 28, 2012 (Order No. R4-2012-0175) and regulates municipal storm water and non-storm water discharges during the construction and operation of certain facilities. The requirements of the order apply to the Los Angeles County Flood Control District, the unincorporated areas of Los Angeles County under County jurisdiction, and 84 cities within the Los Angeles County Flood Control District (the Permittees) with the exception of the City of Long Beach. The MS4 permit contains minimum standards that the Permittees must enforce that apply to construction activities disturbing greater than one acre such as the Project (see also requirements for the Statewide construction permit discussed above, which is a permit that the construction contractor must apply for and adhere to). Compliance with MS4 construction requirements includes implementation of work site BMPs for erosion, sediment, non-storm water management, and waste management.

During operation of proposed improvements, non-storm water discharges from the site would be prohibited (with some conditional exceptions). Storm water effluent must meet water-quality based effluent limitations, or water quality standards for discharge leaving the site, and must not cause or contribute to the exceedance of receiving water limitations (water quality standards for receiving waters). The discharger would be required to prepare a Monitoring and Reporting Program, which includes outfall-based storm water monitoring data (where storm water exits the facility), wet and dry weather receiving water monitoring data, outfall-based non-storm water monitoring data, and regional studies. The frequency of required monitoring and sampling activities varies with the waterbody. If it is determined that a receiving water limitation is being exceeded by effluent from the proposed facilities, the discharger would be required to submit an Integrated Monitoring and Compliance Report. This report would be used to determine additional measures to prevent or reduce pollutants contributing to the exceedance of receiving water limitations.

Los Angeles Regional Water Quality Control Board Groundwater Dewatering General Permit

The Los Angeles Regional Water Quality Control Board General NPDES Permit No. CAG994004 (Order No. 97-043) covers discharges of treated and untreated groundwater generated from permanent or temporary dewatering operations, including groundwater generated from well drilling, construction or development, and purging of wells. This permit ensures the pollutant concentrations in the discharge will not violate any water quality objectives for receiving waters, including discharge prohibitions. Required groundwater samples taken prior to discharging operations determine whether or not another permit may apply or whether the water must be treated prior to being discharged. Dischargers must submit a Report of Waste Discharge prior to permit authorization, including a feasibility study on reuse/alternative disposal methods, a description of groundwater treatment collection and discharge system, a flow diagram, chemicals that will be used, etc. An ongoing monitoring and reporting program is also required under this permit. Because the construction of the channel meander shapes in the proposed Alternatives 1 and 2 would require dewatering, the Groundwater Dewatering General Permit would be required.

Environmental Setting

This chapter incorporates information on drainage from the Storm Water Data Report and Draft Project Report that have been prepared for the Project (Psomas 2023a).

Surface Water Quality

Section 303 of the Clean Water Act establishes the quality standards and TMDL programs. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards and an allocation of that amount to the pollutant’s sources. Water quality standards are set by the California State Water Board, which identifies the uses for each waterbody and the scientific data to support that use. A TMDL is the sum of allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure the waterbody can be used for the purposes the State has designated. The calculation must also account for seasonal variation in water quality.

The project site drains to receiving waters including Ballona Creek, Ballona Creek Estuary, Ballona Creek Wetlands, Marina del Rey Harbor, and Santa Monica Bay.

The project site is within the Ballona Creek Watershed and Jurisdiction Group 3 of Marina Del Ray Total Maximum Daily Load (TMDL) Watershed Boundary. The TMDLs applicable to the project site are provided in Table 2.2.2-1.

Table 2.2.2-1 – TMDLs Applicable to the Project Site

Pollutant(s)	Effective Date	LA RWQB Resolution No.	Categorical Implementation Requirements[1 2]
Ballona Creek and Wetland Trash TMDL	-	-	-
Trash	8/1/2002, revised 6/30/2016	R15-006	Discharge of trash to receiving waters from Caltrans R/W is prohibited. Caltrans is assigned a WLA and compliance schedule in the Ballona Creek Trash TMDL. Installation/retrofit of Gross Solid Removal Devices (GSRDs) and/or full capture systems at existing drainage outfalls within Caltrans R/W are required for TMDL compliance. Existing projects with GSRDs do not require additional implementation.
Ballona Creek Metals TMDL	-	-	-
Metals (Cu, Pb, Zn) and *Se*	12/22/2005, revised 10/26/2015	R13-010	Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain metals and Se. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil.
Ballona Creek Estuary Toxic Pollutants TMDL	-	-	-
Toxic Pollutants (Ag, Cd, Cu, Pb, Zn, Chlordane, DDTs, Total PCBs, Total PAHs)	12/22/2005, revised 10/26/2015	R13-010	Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain toxic pollutants as listed in the TMDL. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil.
Ballona Creek Wetlands TMDLs for Sediment and Invasive Exotic Vegetation	-	-	-
Sediment, invasive exotic vegetation	03/26/2012	US EPA established TMDL	The TMDL assigns a WLA on sediment discharges and input of invasive exotic vegetation to the Responsible Agencies, including Caltrans. Caltrans shall implement control measures to prevent or minimize erosion and sediment discharge. Control efforts may include protecting hillsides, intercepting and filtering runoff, avoiding concentrated flows and not modifying natural runoff flow patterns.

Pollutant(s)	Effective Date	LA RWQB Resolution No.	Categorical Implementation Requirements[1 2]
TMDL for Bacteria Indicator Densities in Ballona Creek, Ballona Estuary, and Sepulveda Channel	-	-	-
Indicator bacteria	03/26/2007, revised 07/02/2014	R12-008	Dry-weather non-storm water and wet-weather storm water discharges may significantly increase bacteria loading to receiving waters. Caltrans shall implement control measures and/or BMPs to prevent the discharge of bacteria from its R/W. Source control measures include street sweeping, illegal dumping clean-up, public education on littering. BMPs include devices which treat storm water through retention/detention, infiltration and/or diversion.
Santa Monica Bay TMDLs for DDT and PCBs	-	-	-
Dichlorodiphenyl-trichlorethane (DDT), total polychlorinated biphenyls (PCBs)	03/26/2012	US EPA established TMDL	Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain pesticides. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil.
Santa Monica Bay Beaches Dry- and Wet-Weather Bacteria TMDLs			
Indicator bacteria	07/15/2003	2002-004 (dry-weather) 2002-022 (wet-weather)	Dry-weather non-storm water and wet-weather storm water discharges may significantly increase bacteria loading to receiving waters. Caltrans shall implement control measures and/or BMPs to prevent the discharge of bacteria from its R/W. Source control measures include street sweeping, illegal dumping clean-up, public education on littering. BMPs include devices which treat storm water through retention/detention, infiltration and/or diversion.

Notes:
1 Refer to §4 of the PPDG to determine the specific impervious threshold for storm water Treatment BMP requirements.
2 General TMDL Requirements can be found in Attachment IV of the NPDES Statewide Storm Water Permit.
Source: Psomas 2023a.

Erosion and Sedimentation

Throughout most of its length, Ballona Creek is a concrete-lined, flood-control channel in a highly urbanized watershed. These factors limit the supply of sediment to Ballona Creek, which in turn limits the potential for sedimentation in the channel. The concrete lining also prevents channel erosion, so erosion only occurs in the soft-bottom portion of the channel (downstream of Centinela Boulevard).

Groundwater Quality

The shallow water table is under tidal influence meaning that groundwater elevations fluctuate in response to tidal cycles in Santa Monica Bay. Generally, freshwater from the inland water table flows toward the coast and mixes with salty groundwater making groundwater that is brackish (a mixture of salty and fresh water). The brackish groundwater in these estuarine, shallow water table aquifers is non-potable.

Overall, the groundwater in the Santa Monica Basin is of fair to poor quality. Contaminants include total dissolved solids, nitrate, volatile organic compounds, and methyl tertiary-butyl ether (MTBE). Groundwater quality in the Santa Monica Basin reflects current and historical land uses. As a highly urban area, commercial and industrial activities have resulted in contamination due to leaking aboveground and underground storage tanks, leaking sewer and oil pipelines, spills, and illegal discharges. Many groundwater contamination plumes consist of priority contaminants such as petroleum fuels and additives (e.g., MTBE) or solvents (e.g., trichloroethylene, perchloroethylene) (Santa Monica Basin Groundwater Sustainability Agency 2022).

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Since Alternative 1 would involve no construction, there would be no short-term effects related to water quality and storm water runoff. Therefore, there would be no temporary increase in water quality effects related to potential spills of water quality contaminants from a construction site. No vegetation removal, grading, or other revisions to local hydrology would occur under Alternative 1. Therefore, Alternative 1 would not increase risk of soils/sediments getting into Ballona Creek.

Under Alternative 1, there would be no temporary construction within Ballona Creek nor would the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek be demolished. Therefore, there would be no potential effects related to water quality related to machinery being operated in/near the creek, or of polluted runoff entering the creek, or of debris falling into Ballona Creek. Given that the existing bridge structures in the project site likely contain lead based paint and asbestos containing materials, Alternative 1 would avoid the potential for these building materials to pollute local waters during demolition, as could occur under Alternative 2. There would also be no need to install temporary cofferdams under Alternative 1 that could potentially increase scour and erosion in the Ballona Creek, as well as temporary flood risks. Alternative 1 would also not involve any work within the groundwater table so no dewatering would be needed and no resultant water quality effects would occur. Finally, Alternative 1 would not require the temporary removal of the trash screen within Ballona Creek.

Operational Effects

Alternative 1 would involve no alterations to the existing hydrology or floodplain characteristics of the project site. Therefore, there would be no resultant changes in scour or sedimentation within Ballona Creek that would result under this alternative, nor would the total number of piers be decreased under this alternative as would occur under Alternative 2.

Alternative 1 would result in no change to the amount of impervious surface within the project site, nor would the amount of storm water change under Alternative 1. Therefore, Alternative 1 would not result in any increased potential for polluted storm water to enter waterways from the project site. However, Alternative 1 would not result in the implementation of water quality BMPs to detain and treat water that would result from Alternative 2.

Cumulative Effects

Since Alternative 1 would involve no construction or operational effects, Alternative 1 would have no potential to contribute to cumulative effects related to water quality and storm water runoff.

Alternative 2 – Base Alternative

Construction Effects

Surface Water Quality and Runoff

Water quality within Ballona Creek and Fiji Ditch would be affected during construction of Alternative 2 as described in more detail below.

Overview of Common Water Quality Impacts From Construction

Alternative 2 would result in short-term effects related to water quality and storm water runoff such as increases in chemicals, debris, loose soil, sediment, and/or spilled fluids such as gasoline, oil, and lubricants. Surface runoff would occur that, if not controlled, could affect water quality in local receiving waters.

Alternative 2 would result in soil disturbance and vegetation removal that would promote erosion during storm and wind events if not controlled. According to the Natural Environment Study, Alternative 2 would result in a total of 22.41-acres[30] of ground disturbance, (Psomas 2024a).

Construction of the new SR-1/Lincoln Boulevard Bridge would involve work activities within Ballona Creek that would disturb soil and would otherwise potentially introduce water quality contaminants into the waterway. The major steps in the bridge reconstruction would include:

- Temporary cofferdams [31] would be installed and used to create a work area within Ballona Creek in areas where new piers would be constructed.
- Abutments would be constructed including 36-inch diameter Cast In Drilled Hole (CIDH) concrete piles, and stone columns installed beneath the abutments.
- Piers would be constructed consisting of 66-inch diameter Cast In Steel Shell (CISS) concrete pile columns each with integral drop pier caps.
- Concrete slope paving would then be installed.

Soil disturbance within Ballona Creek would occur within cofferdams associated with the removal of the existing bridge substructure and the construction of the new bridge substructure. These activities could potentially result in sediment becoming suspended within Ballona Creek, although these effects would be minimized through the use of cofferdams and other measures to be specified in the SWPPP.

During construction of the new SR-1/Lincoln Boulevard Bridge over Ballona Creek, there is potential that polluted runoff would not be contained on the bridge and would instead be allowed to freely discharge into Ballona Creek. Any contaminant compounds in the runoff would be immediately discharged into the water in this worst-case scenario. Pollutants could include trash, fuels, oil, brake dust, sediment, etc. Also, equipment that is operated in the construction area might leak petroleum compounds, or fuel could spill when it is being dispensed or during storage that could flow into a waterway via storm water runoff. Runoff could also occur from areas that

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[30] A 22.41-acre overall impact footprint was determined by adding 12.087 acres of permanent impacts and 10.317 acres of temporary impacts that are identified within the Natural Environment Study (NES) (Psomas 2024a). Please note that the total Disturbed Surface Area (DSA) within the Storm Water Data Report (SWDR) has a lower acreage given that DSA was calculated in a different manner in the SWDR than how impacts were calculated in the NES.

[31] A cofferdam is a watertight enclosure from which water is pumped to expose the bed of a body of water so that construction can occur.

are dedicated to cleaning equipment, which could result in water quality effects if not controlled including increased phosphates, suspended solids, and dissolved solids.

To avoid and minimize impacts to water quality that could result from general construction activities, **MM WQ-1** would be implemented, which requires that the Contractor develop an SWPPP which will specify appropriate best management practices to be implemented during construction. Project construction would also adhere to the South Coast Air Quality Management District's Rule 402 (Nuisance) and Rule 403 (Fugitive Dust) to avoid and minimize dust from leaving the site. With implementation of **MM WQ-1**, no substantial adverse effects would result from general construction activities.

Hazardous Materials

Based on records searches of available information and an assessment of historical land uses, it is likely that the project site contains soils and groundwater that may be contaminated with hazardous materials. When disturbed, these materials could blow into waterways or could drain into waterways via storm water, if not managed. With implementation of **MM HAZ-1**, which is detailed in Chapter 2.2.5, Hazardous Waste/Materials, any contaminated soil or groundwater would be identified and classified, and appropriate procedures for the management of soils would be determined at that time. With implementation of **MM HAZ-1**, potential water quality effects from the disturbance, handling, ad disposal of potentially contaminated soil and groundwater would be minimized.

Aerially-Deposited Lead likely occurs within shallow soils along SR-1/Lincoln Boulevard and Culver Boulevard within the project site. With implementation of **MM HAZ-2**, which is detailed in Chapter 2.2.5, Hazardous Waste/Materials, aerially-deposited lead would be managed in a manner that would minimize potential effects to surface water quality.

The two existing bridges within the project site likely contain lead based paint, and may contain asbestos containing materials. With implementation of **MM HAZ-3**, which is detailed in Chapter 2.2.5, Hazardous Waste/Materials, asbestos containing materials, lead based paint, and other hazardous materials within structures that would be demolished would be managed in a manner that would minimize potential effects to surface water quality.

Yellow traffic striping and pavement markings within the project site could potentially contain hazardous materials; however, **MM HAZ-5** would be implemented requiring the testing and proper management of these materials. With implementation of **MM HAZ-5,** potential effects to water quality would be minimized.

Water Quality Effects of the SR-1/Lincoln Boulevard Bridge Removal Over Ballona Creek

Bridge demolition above Ballona Creek could result in water quality pollutants entering the waterway from the demolition operations. If not controlled, pollutants could include: lead based paint, chromium, rust debris, particulate matter, and other substances.

The removal of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek would consist of the following major steps:

- Temporary cofferdams would be installed and used to create a work area within Ballona Creek in areas where demolition of the existing piers would occur.
- Existing footings would be demolished and removed.
- Existing timber piles would be left in place below the Ballona Creek surface level.
- Concrete, reinforcing steel, and steel girders would be salvaged and recycled following current sustainability practices.

To minimize potential water quality effects related to the bridge removal over Ballona Creek, **MM WQ-2** would be implemented requiring a Bridge Removal Plan be developed and implemented by the Contractor. The plan would include applicable bridge debris containment measures to collect debris and prevent it from falling into the creek. The plan would include water quality monitoring requirements for work within and above Ballona Creek. The plan would include measures such as:

- Use of attachments on construction equipment to catch debris;
- Use of heavy-duty tarps or netting suspended below the existing bridge deck;
- Use of platforms built below the existing bridge deck;
- Use of silt curtains or containment booms in the creek; and
- Moving concrete sections to land for breaking down rather than breaking them down above the creek.

With implementation of **MM WQ-2,** Alternative 2 would have no substantial adverse effects on water quality within Ballona Creek or other receiving waterways.

Dewatering

During construction, Alternative 2 would require the temporary dewatering of work areas during grading and other excavations or work within areas below the water table. Dewatering would be required which would result in water that would need to be disposed of that could potentially contain water quality pollutants. Water quality pollutants that could be encountered primarily includes sediments. **MM WQ-3** would be implemented to avoid and minimize water quality effects related to dewatering, which requires that groundwater encountered during construction will be temporarily stored onsite, tested, treated, and disposed of in coordination with the Los Angeles Regional Water Quality Control Board. With implementation of **MM WQ-3**, Alternative 2 would have no substantial adverse effects on surface water quality.

Temporary Cofferdams and Erosion/Water Quality

Temporary cofferdams would be installed and used to create a work area within Ballona Creek in areas where demolition of the existing piers and installation of new piers would occur.

As required by **MM HYD-2**, which is presented previously in Chapter 2.2.1, Hydrology and Floodplain, construction activities within the active Ballona Creek channel shall occur between May 1 and October 1 to avoid the rainy season to the maximum extent feasible.

Temporary cofferdams could result in increased potential for scour and erosion within the channel if they are being utilized during a large storm event, which could pose risk to downstream structures such as the Culver Boulevard bridge over Ballona Creek. Downstream scour and erosion could also result in effects to CDFW's Ballona Wetlands Restoration Project and habitats establishing therein, if CDFW has implemented their restoration project prior to Alternative 2 being implemented. Scour and erosion would result in diminished water quality downstream that would have effects on fish and marine mammals.

In order to minimize potential water quality effects related to the bridge removal over Ballona Creek, **MM WQ-2** would be implemented requiring a Bridge Removal Plan be developed and implemented by the Contractor.

Temporary Removal of Existing Trash Screen

During construction, and especially if a barge is used as noted above, then the existing trash screen that is located within Ballona Creek downstream/west of the existing SR-1/Lincoln Boulevard Bridge would need to be temporarily removed to permit access. The trash screen would be replaced prior to the completion of construction. As required by **MM WQ-4,** alternative water quality BMPs would be implemented during construction of Alternative 2 to intercept trash prior to it passing through the project site. This could include strategies such as the temporary placement of the trash screen upstream/east of the proposed replacement SR-1/Lincoln Boulevard Bridge over Ballona Creek.

Groundwater Quality

Due to the shallow depth of the groundwater table within the project site, construction of Alternative 2 could potentially affect groundwater quality. Construction activities within/below the groundwater table could disturb sediments and increase turbidity within groundwater. Incidental spills within the project site of oils, fuels, lubricants, etc. could also affect groundwater if it were to be allowed to absorb into the soil and to percolate into the shallow groundwater table within the project site. However, with implementation of **MM WQ-1** requiring development and implementation of a SWPPP and **MM WQ-3** requiring implementation of dewatering best management practices, potential effects to groundwater quality would be minimized.

Operational Effects

Drainage From The Roadway

The wider roadway that would result from Alternative 2 would have the potential to contribute less polluted storm water into Ballona Creek when compared to the existing conditions.

Typical water quality contamination on roadways often includes incidental drippings from vehicles, accidental spills that introduce contaminant materials, and accidental releases from bridge maintenance activities. Also, surface runoff would be affected by particulates from pavement wear; metals such as zinc, lead, iron, copper, cadmium, chromium, nickel, and manganese from vehicles brakes; diesel fuel; tire wear; auto body rusting; metal plating; break lining wear; grease and lubricating oils; trash discarded from vehicles; and pathogenic bacteria from soil, litter, bird droppings, etc.

Alternative 2 would include seven capture house devices and one trash net within the project site that would intercept primarily trash prior to it being carried to Ballona Creek or other downstream receiving waters.

Also, as required by **MM WQ-5,** storm water generated from the widened roadway would be treated for anticipated roadway contaminants prior to the water discharging into Ballona Creek, Fiji Ditch, or other downstream receiving water bodies. Additional treatment methods could include practices such as biofiltration swales, detention basins, gross solids removal devices, and/or media filters (e.g., filtration systems where the first chamber settles out the larger solids and the second chamber traps hydrocarbons and metals as they pass through the filter).

As such, implementation of mitigation measures and construction of the seven capture house devices and one trash net would improve the water quality of storm water runoff from existing conditions.

Drainage From The Bridge Deck

The wider bridge deck over Ballona Creek would have potential to contribute polluted storm water into Ballona Creek beyond existing conditions.

As required by **MM WQ-5**, storm water generated on the bridge deck of the SR-1/Lincoln Boulevard Bridge over Ballona Creek would be piped off the bridge and treated on either side of the bridge before it is allowed to outlet to Ballona creek or other downstream receiving waterbody.

Potential For Release of Pollutants Due to Project Inundation During Project Operations

Portions of the project site could potentially be flooded during a variety of scenarios related to storm events and sea level rise that are described in more detail in Chapter 2.2.1, Hydrology and Floodplain. In the event of a flood within the project site, vehicles within the project site could be flooded, which could lead to water quality pollution with gasoline, metals, and other contaminants listed above that would result from the widened roadway. However, in most flood events local roadways would be closed prior to flooding actually occurring; therefore, it is unlikely that cars would be on SR-1/Lincoln Boulevard or Culver Boulevard when it is subject to flooding.

Groundwater Quality

Alternative 2 would not result in any substantial permanent effects to the quality of the groundwater within or near the project site. No aspects of Alternative 2 would increase the transport of pollutants into the groundwater table through infiltration. Alternative 2 would result in 2.90 acres of additional impervious surface within the project site, which would reduce groundwater infiltration. Alternative 2 would also involve 7.58 acres of replaced impervious surface area. However, groundwater infiltration in the project site is limited in existing conditions due to the high groundwater table, which limits current percolation that occurs within the project site. Therefore, the increased impervious surface would not result in a substantial decrease in groundwater infiltration that would thereby result in impaired groundwater quality.

Cumulative Effects

As discussed above, Alternative 2 would result in short-term construction effects to surface water quality from demolition, grading, and other construction-related activities. Also, during operation of Alternative 2 potential water quality contamination might occur from the widened roadway and bridge deck.

Similar to Alternative 2, cumulative projects in the vicinity would be required to prepare and implement a SWPPP and to identify and implement operational water quality BMPs, which would minimize the potential for water quality degradation on a cumulative basis. Therefore, no substantial cumulative effects would result from implementation of Alternative 2 and other cumulative projects.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would not change any construction work activities within Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2A would involve less ground disturbance and vegetation removal within a small portion of the project site that is west of SR-1/Lincoln Boulevard and south of Fiji Ditch and north of Culver Boulevard. This would result in a minor decrease in the amount of storm water generated from this area of the project site as well as in the potential for temporary water quality effects such as turbidity/erosion. Otherwise, the construction effects of Alternative 2A related to water quality and storm water runoff would be the same as for Alternative 2.

<u>Operational Effects</u>

Alternative 2A would not change any effects related to Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2A would result in the same amount of impervious surface coverage within the project site as would result from Alternative 2. The primary difference between these two alternatives is that Alternative 2A would include a retaining wall that would reduce temporary ground disturbance within the BWER. In contrast, Alternative 2 would not build a retaining wall and would instead re-grade the area west of SR-1/Lincoln Boulevard so that it is a consistent 2:1 slope leading down to the roadway with native landscaping. Alternative 2A would require the installation of backdrains, brow ditches, and similar best practices to ensure proper drainage and integrity of the proposed retaining wall. In general, the amount of storm water generated by Alternative 2A once built would be the same as for Alternative 2, and the quality of storm water would be the same as is anticipated for Alternative 2. Alternative 2A would convey storm water flows in the same direction of flow and in the same general quantities as proposed for Alternative 2. Otherwise, Alternative 2A would not result in any additional changes related to water quality and storm water runoff when compared to Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2A, cumulative effects related to water quality and storm water runoff would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would not change any construction work activities within Ballona Creek when compared to Alternative 2, but would reduce a small amount of work within Fiji Ditch related to the extension of a culvert that would occur under Alternative 2. Alternative 2B would involve less ground disturbance and vegetation removal within a small portion of the project site, on both sides of SR-1/Lincoln Boulevard within Fiji Ditch. This would result in a minor decrease in the amount of storm water generated from this area of the project site as well as in the potential for temporary water quality effects such as turbidity/erosion. Otherwise, the construction effects of Alternative 2B related to water quality and storm water runoff would be the same as for Alternative 2.

Operational Effects

Alternative 2B would not change any effects related to Ballona Creek when compared to Alternative 2, but would reduce the amount of permanent effects to Fiji Ditch on both sides of SR-1/Lincoln Boulevard where existing culverts beneath the roadway would be extended under Alternative 2. Alternative 2B would result in the same amount of impervious surface coverage within the project site as would result from Alternative 2. The primary difference between these two alternatives is that Alternative 2B would include cantilevered sidewalks that would reduce work within Fiji Ditch. The amount of storm water generated by Alternative 2B once built would be the same as for Alternative 2, and the quality of storm water would be the same as is anticipated for Alternative 2. Alternative 2B would convey storm water flows in the same direction of flow and in the same general quantities as proposed for Alternative 2. Otherwise, Alternative 2B would not result in any additional changes related to water quality and storm water runoff when compared to Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to water quality and storm water runoff would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would not change any construction work activities within Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2C would involve a greater amount of ground disturbance and vegetation removal within a small portion of the project site near the existing Culver Boulevard bridge on both sides of SR-1/Lincoln Boulevard. This would result in a minor temporary increase in the amount of storm water generated from this area of the project site as well as in the potential for temporary water quality effects such as turbidity/erosion. Otherwise, the construction effects of Alternative 2C related to water quality and storm water runoff would be the same as for Alternative 2.

Operational Effects

Alternative 2C would not change any effects related to Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2C would result in a wider bridge than is proposed by Alternative 2, which would generate additional runoff that would contain storm water pollutants; however, any additional runoff would be captured, detained, and treated so the wider bridge would not result in any new substantial adverse effects related to water quality when compared to Alternative 2. Otherwise, Alternative 2C would not result in any additional changes related to water quality and storm water runoff when compared to Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to water quality and storm water runoff would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would not change any construction work activities within Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2D would involve a greater amount of ground disturbance and vegetation removal within a small portion of the project site near the existing Culver Boulevard bridge west of SR-1/Lincoln Boulevard. This would result in a minor temporary increase in the amount of storm water generated from this area of the project site as well as in the potential for temporary water quality effects such as turbidity/erosion. Otherwise, the construction effects of Alternative 2C related to water quality and storm water runoff would be the same as for Alternative 2.

Operational Effects

Alternative 2D would not change any effects related to Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2D would result in an additional bicycle/pedestrian ramp that is not included in Alternative 2, which would result in additional impervious surface that would generate additional runoff. However, any additional runoff would be captured, detained, and treated so the new ramp would not result in any new substantial adverse effects related to water quality when compared to Alternative 2. Otherwise, Alternative 2D would not result in any additional changes related to water quality and storm water runoff when compared to Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to water quality and storm water runoff would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM WQ-1:** The Contractor shall develop a Storm Water Pollution Prevention Plan (SWPPP) that shall specify appropriate best management practices to avoid and minimize storm water pollution by construction activities. The Contractor shall implement the SWPPP throughout construction. The SWPPP shall be implemented in accordance with the requirements of the State Water Board and Los Angeles Regional Water Quality Control Board for SWPPP approval, implementation, and reporting.

  At a minimum, the following surface runoff measures, or their equivalent, will be implemented during construction as a part of the SWPPP:

  - Tires on construction equipment will be washed before the equipment leaves the project site.
  - Designated locations will be provided for servicing, washing, and refueling equipment, away from temporary channels or swales that would quickly convey runoff to the drainage system and into Ballona Creek or Fiji Ditch.
  - Hazardous materials (e.g. oil, lubricants, gasoline) will be stored and dispensed at a safe distance (a minimum of 100 feet) Ballona Creek and Fiji Ditch. Fueling of semi-stationary equipment within the 100-foot buffer would only occur in accordance with best management practices approved by the Los Angeles Regional Water Quality Control Board.
  - Best management practices would be implemented around areas where hazardous materials would be temporarily stored to ensure that any accidental spills are contained and do not contaminate receiving waters.
  - To prevent potential introduction of any lead based paint into receiving waters, the contractor(s) will take appropriate measures to eliminate lead based paint from reaching the receiving waters. If paint removal is necessary during the bridge

dismantling process, the contractor will comply with all applicable laws and regulations relative to this process to ensure protection of receiving waters.

- The Contractor shall provide stabilized entrances and exits from the project site.
- The Contractor shall regularly water or otherwise stabilize non-paved areas of the construction site.
- The Contractor shall regularly sweep and vacuum paved surfaces near entrances to the construction site.
- The Contractor shall protect storm drain inlets with inserts or linear interrupters such as gravel bag and/or sandbag berms.
- The Contractor shall manage stockpiles against wind and water erosion.
- The Contractor shall monitor and report BMP performance and conditions before and immediately after the completion of work, in accordance with SWPPP specifications.
- The Contractor shall install temporary signage with contact information for someone on the Contractor's team that can be contacted by members of the public should they observe and desire to report fugitive dust, track-out, or other potential water quality-related issues during construction.

- **MM WQ-2**: The Contractor shall develop and implement a Bridge Removal Plan. The plan shall be submitted to the City for review and approval prior to implementation. The plan shall include applicable bridge debris containment measures to collect debris and prevent it from falling into the creek. The plan would include water quality monitoring requirements for work within and above Ballona Creek. The plan would include measures such as:
  - Use of attachments on construction equipment to catch debris;
  - Use of heavy-duty tarps or netting suspended below the existing bridge deck;
  - Use of platforms built below the existing bridge deck;
  - Use of turbidity curtains in lieu of silt curtains. Silt curtains generally refer to impermeable barriers built to hold water and thus provide control of suspended sediment. Silt curtains are generally not used in tidal channels due to the elevated water velocities. An alternative solution is the use of turbidity curtains, which are deployed in a manner similar to silt curtains, but are constructed of a permeable material that allows water to flow through the membrane while trapping suspended sediment. Use of these permeable membrane curtains allows for the

barrier to extend from the water surface to the bottom, which provides greater sediment containment over the use of silt curtains; and

  - Moving concrete sections to land for breaking down rather than breaking them down above the creek.

- **MM WQ-3:** Groundwater encountered during construction will be temporarily stored onsite, tested, treated, and then disposed of. A dewatering permit will be obtained from the Regional Water Quality Control Board prior to beginning construction activities that could encounter groundwater. Based on results of the groundwater assessment and recommendations from the Regional Water Quality Control Board, the Contractor may utilize one or a combination of three different approaches to disposing of water obtained from dewatering operations, which are specified below:
  - Onsite Treatment: This approach involves the installation and usage of a temporary water treatment plant for treating water generated from dewatering operations to reduce the concentrations of pollutants of concern below NPDES limits.
  - Treatment and Disposal Offsite: This approach involves the temporary storage of water on the project site, waste profiling, and then transporting the water to a regulated facility for treatment and disposal. Based on results of the groundwater investigation, the groundwater could be profiled as either hazardous waste or nonhazardous waste.
  - Disposal into Local Sewer System: This approach would entail disposal of the groundwater into the City of Los Angeles sewage treatment system. The groundwater can be disposed by connecting the dewatering operation to a local sewer line adjacent to the project site or to a trunk line. The type of sewer line connection is dependent upon the rate of flow of the groundwater from the dewatering operation and would be determined by the permitting agency. To dispose of groundwater into the City of Los Angeles sewer system, an Industrial Wastewater Discharge Permit is required, which is issued by the City of Los Angeles Department of Public Works, Bureau of Sanitation, Industrial Waste Management Division (IWMD). To satisfy permit conditions, treatment of discharge water would be required.

- **MM WQ-4:** To minimize water quality effects to the temporary removal of the trash screen within Ballona Creek, the Contractor shall implement alternative water quality best management practice during construction of Alternative 2 to intercept trash prior to it passing through the project site. This could include strategies such as the temporary placement of the trash screen upstream/east of the proposed replacement Lincoln Boulevard Bridge over Ballona Creek.

- **MM WQ-5**: Storm water generated from the widened roadway would be treated for anticipated roadway contaminants prior to the water discharging into Ballona Creek, Fiji Ditch, or other downstream receiving water bodies. Treatment methods could include practices such as biofiltration swales, detention basins, gross solids removal devices, and/or media filters.

  Also, storm water generated on the bridge deck of the SR-1/Lincoln Boulevard Bridge over Ballona Creek would be piped off the bridge and treated on either side of the bridge before it is allowed to outlet to Ballona creek or other downstream receiving waterbody.

2.2.3 Geology/Soils/Seismic/Topography

Information in this section is partially derived from the following technical studies:

- Group Delta. 2022a (November). Structure Preliminary Geotechnical Report, Lincoln Boulevard Bridge Replacement, Los Angeles, California. Los Angeles, CA: Group Delta.
- Group Delta. 2022b (November). Structure Preliminary Geotechnical Report, Culver Boulevard Bridge Replacement, Los Angeles, California. Los Angeles, CA: Group Delta.
- Psomas. 2019 (November). Paleontological Identification Report (PIR) and Paleontological Evaluation Report (PER) for the State Route 1 (SR-1/Lincoln Boulevard) Multimodal Improvement Project. Pasadena, CA: Psomas.

Regulatory Setting

Federal

<u>International Building Code</u>

The International Building Code (IBC) is the national model building code providing standardized requirements for construction. The IBC establishes consistent construction guidelines for the nation, and has been adopted with amendments into the California Building Code. The IBC contains codes related to geology and soils, including Chapter 16 (structural design) and Chapter 18 (soils and foundations) (ICC 2021a).

<u>Historic Sites Act of 1935</u>

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under CEQA.

<u>National Environmental Policy Act:</u>

The National Environmental Policy Act of 1969 as amended (NEPA) requires the federal government to use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 US Code [USC] 4331[b][2]). To further emphasize this point, the FHWA in its implementation of NEPA (23 USC 109[h]) directs final decisions for projects be made in the best overall public interest, taking into account adverse environmental effects, including the destruction or disruption of the natural environment, including soils, geology, and mineral resources.

State

California Building Code

The 2022 California Green Building Standards Code (CGBSC; 24 California Code of Regulations, Part 11) is administered by the California Building Standards Commission and went into effect on January 1, 2023 (CBSC 2022a). The national model code standards adopted into Title 24 apply to all occupancies in California except for modifications adopted by State agencies and local governing bodies. The CGBSC establishes general standards for the design and construction of buildings, including provisions related to seismic safety. The CGBSC provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures in its jurisdiction. Chapter 18 of the California Building Code, Soils and Foundations, specifies the level of soil investigation required by law in California. Requirements in Chapter 18 apply to building and foundations systems and consider reduction of potential seismic hazards.

Alquist-Priolo Earthquake Fault Zoning Act of 1972

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) was adopted by the State of California in 1972 in order to mitigate surface fault rupture hazards along known active faults (California Public Resources Code [PRC] Section 2621 et. seq.). The purpose of the Alquist-Priolo Act is to reduce the threat to life and property—specifically from surface fault rupture—by preventing the construction of buildings used for human occupancy on the surface trace of active faults. Under the Alquist-Priolo Act, the California Geological Survey has defined an "active" fault as one that has had surface displacement during the past 11,700 years (Holocene time). This law directs the State Geologist to establish Earthquake Fault Zones (known as "Special Studies Zones" prior to January 1, 1994) to regulate development in designated hazard areas. In accordance with the Alquist-Priolo Act, the State has delineated "Earthquake Fault Zones" along identified active faults throughout California. Prior to permitting, City and County jurisdictions must require a geologic investigation to demonstrate that a proposed development project, which includes structures for human occupancy, is adequately set back. An evaluation and written documentation of the site must be prepared by a licensed geologist. If the results of the report determine there is an active fault, no structure for human occupancy can be placed over the trace of the fault and a set back from the fault (generally at least 50 feet) is required.

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 and directs the State of California Department of Conservation Division of Mines and Geology to identify and map areas subject to earthquake hazards such as liquefaction, earthquake-induced landslides, and amplified ground shaking (PRC Sections 2690–2699.6). Passed by the State legislature after the 1989

Loma Prieta Earthquake, the SHMA is aimed at reducing the threat to public safety and minimizing potential loss of life and property in the event of a damaging earthquake event. Seismic Hazard Zone Maps are a product of the resultant Seismic Hazards Mapping Program and are produced to identify Zones of Required Investigation; most developments designed for human occupancy in these zones must conduct site-specific geotechnical investigations to identify the hazard and to develop appropriate mitigation measures prior to permitting by local jurisdictions.

The SHMA establishes a Statewide public safety standard for the mitigation of earthquake hazards. The California Geological Survey's Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California, provides guidance for the evaluation and mitigation of earthquake-related hazards for projects in designated zones of required investigations (CGS 2008a).

Seismic Design Criteria

This chapter also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using the Department's Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities.

Local

Geologic resources and geotechnical hazards in the project site are also governed by local jurisdictions. The conservation and safety elements of the City of Los Angeles General Plan contain policies for the protection of geologic features and avoidance of geologic hazards (City of Los Angeles 2001b, 2021b). Also, the City's and County's Local grading ordinances establish detailed procedures for excavation and earthwork required during construction. In addition, the City's and County's building codes and building design standards establish requirements for construction of aboveground structures. Most local jurisdictions rely on the 1997 California Uniform Building Code as a basis of seismic design. All local jurisdictions must comply with regulations of the Alquist-Priolo Act.

Environmental Setting

Regional and Local Geology

Site Geology and Soils

The project site is located within the Los Angeles basin section of the Peninsular Ranges geomorphic province of southern California. The Los Angeles basin is generally underlain by Quaternary alluvial deposits, which overlie several thousand feet of Tertiary marine and non-marine sediments. Previous geological investigations that have occurred within the project site and vicinity indicate that the site is underlain by Quaternary Alluvial Floodplain Deposits, which are covered with both hydraulic fill and conventional fill indicate that the site is underlain by Quaternary Alluvial Floodplain Deposits, which are covered with both hydraulic fill and conventional fill.

Quaternary-age alluvial sediments primarily associated with the Ballona Creek drainage are believed to underlie the entire project site to the maximum depth explored. The upper portion of these alluvial deposits (from a few feet above mean sea level down to about 35 feet or 40 feet below mean sea level) is typically poorly consolidated, and most commonly consists of interbedded lean and fat clay (CL or CH) and silt (ML and MH), with occasional beds of silty and clayey sand (SM and SC). At elevations approximately 35 feet or 45 feet below mean sea level (MSL), the density of the alluvium typically increases, and the beds of silty, clayey, and poorly graded sand (SM, SC, or SP) become more common. Laboratory tests indicate that the alluvium is moderate to highly compressible.

The existing SR-1/Lincoln Boulevard Bridge abutments are believed to be underlain by compacted fill, as well as hydraulic fill soils placed during the development of Marina Del Rey. The hydraulic fills are similar in composition to the underlying alluvium, as they were likely generated from these deposits (CNS 2022a).

A geologic map of the project site and vicinity is provided as Figure 2.2.3-1.

Expansive Soils

Expansive soils are fine-grained soils that shrink or swell as the moisture content decreases or increases. Structures built on these soils can experience damage resulting from shifting, cracking, and breaking damage as soils shrink and subside, or expand and rise. The change in soil volume is due to the gain (swell) or loss (shrink) of water in soils having high clay content; silts also can undergo volume changes with changes in moisture. The shrink/swell phenomenon most commonly is observed in the upper 10 to 20 feet of soil where precipitation, evapotranspiration, and related water-cycle reactions occur. Shallow expansive soils commonly are found on sites in

REFERENCE: Saucedo et al. (2003). *Geologic Map of the Long Beach 30'x60' Quadrangle, California*, CGS, Scale 1:100,000.

ABBREVIATED EXPLANATION

HOLOCENE

af	Artificial fill
Qw	Active channel and wash deposits
Qa	Alluvial flood plain deposits
Qls	Landslide deposits
Qb	Beach deposits
Qe	Eolian deposits
Qpe	Paralic estuarine deposits
Qyf	Young alluvial fan and valley deposits, undivided a = sand, s = silt, c = clay
Qyf2	Young alluvial fan deposits, unit 2
Qyf1	Young alluvial fan deposits, unit 1
Qya	Young alluvial flood plain deposits, unit 1
Qye	Young eolian deposits
Qype	Young paralic estuarine deposits
Qof	Old alluvial fan and valley deposits, undivided a = sand, s = silt, c = clay
Qoa	Old alluvial flood plain deposits, undivided

PLEISTOCENE

Qoe	Old eolian deposits
Qom	Old marine deposits, undivided
Qop	Old paralic deposits, undivided, a = sand, s = silt, c = clay
Qlh	La Habra Formation
	San Pedro Formation
Qsp	San Pedro Formation, undivided
Qspt	Timms Point Silt Member
Qspl	Lomita Marl Member
Qi	Inglewood Formation
Qp	Pleistocene sedimentary deposits, undivided

N

NO SCALE

Geologic Map

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Group Delta Consultants Inc., 2022

Figure 2.2.3-1

California and soil testing for shrink/swell is frequently conducted by the engineer when characteristic soils are identified during the field soil sample and laboratory testing phases. If soils with shrink/swell tendencies are identified, they can be managed in various ways but one of the most common is removal of the expansive soils and replacement with non-expansive fills. Geotechnical investigations performed within the adjacent BWER for CDFW's Ballona Wetlands Restoration Project included testing for soil expansion and laboratory results from a very limited sampling effort determined a low potential for expansion in near surface soils, however boring logs indicate that there are clayey soil layers that may have higher expansion potential (CDFW 2017a).

Soil Corrosiveness

Corrosive soils have the potential to corrode unprotected metal and concrete upon contact under certain conditions, such as concrete foundations. Factors in determining soil corrosivity are electrical resistivity, pH, soluble salt content, soil types, aeration, anaerobic conditions, and site drainage.

Corrosion tests were performed on selected samples collected from exploratory borings collected at the project site. The corrosion potential for these soils was assessed in accordance with the the Caltrans Corrosion Guidelines. Caltrans defines a corrosive environment as an area where the soil has either a chloride concentration of 500 parts per million (ppm) or greater, a sulfate concentration of 1,500 ppm or greater, or a pH of 5.5 or less. The available test data indicates that the project site's soils are not corrosive based on Caltrans' criteria.

However, the available resistivity tests do suggest that the soils within the project site may be extremely corrosive to buried metals, based on the nomography[32] provided in Figure 855.3B of the 2020 Caltrans Highway Design Manual. All three of the soil samples tested had minimum resistivities below 1,000 ohm-cm. This is indicative of corrosive soil since soil corrosion is associated with electrical conductivity.

According to the Draft EIR/EIS prepared for CDFW's Ballona Wetlands Restoration Project, areas north of Ballona Creek and west of SR-1/Lincoln Boulevard are known to be severely corrosive to ferrous metals, possibly aggressive to copper, and moderately aggressive to concrete (CDFW 2017a).

[32] Nomography is the graphical representation of mathematical relationships for purposes of calculation.

Surface Fault Rupture

Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The magnitude, sense, and nature of fault rupture can vary for different faults or even along different strands of the same fault. Although future earthquakes could occur anywhere along the length of an active fault, only regional strike-slip earthquakes of magnitude 6.0 or greater are likely to be associated with significant surface fault rupture and offset (CDMG and USGS 1996). It is important to note that unmapped subsurface fault traces could experience unexpected and unpredictable earthquake activity and fault rupture. However, ground rupture is considered more likely along active, strike-slip faults. Therefore, the highest potential for surface faulting in or near the project site is along existing active fault traces.

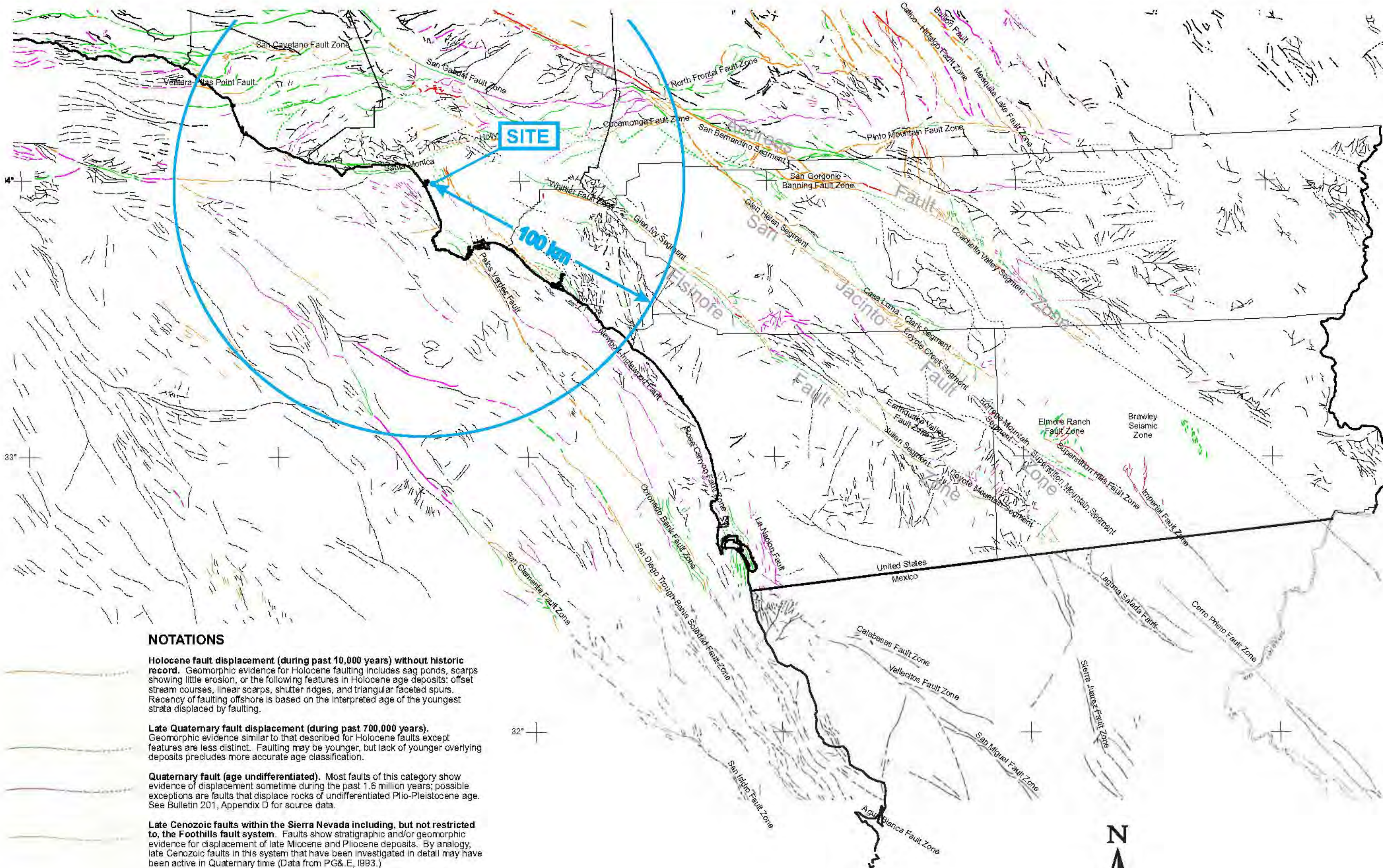
Known faults within 100 kilometers (km) of the project site are shown on the Regional Fault Map provided as Figure 2.2.3-2. The approximate locations of both the active and potentially active faults in the project vicinity are shown on the Local Fault Map provided as Figure 2.2.3-3 (Group Delta 2022a).

The project site is not located within an Alquist-Priolo Earthquake Fault Zone and no evidence of active or potentially active faulting was encountered during Group Delta's site investigation and literature review. Consequently, ground rupture is not considered a significant geologic hazard to the Project.

Seismic Ground Shaking

The project site is in a seismically active region of southern California containing both active faults and potentially active faults. According to the U.S. Geological Survey's earthquake rupture forecasting, the Los Angeles Area has a 60 percent chance of experiencing a magnitude 6.7 or greater earthquake over the next 30 years (USGS 2022). Depending on a number of factors, there is a potential for high-intensity ground shaking to occur in this region. The intensity of such an event would depend on the fault and the distance to the epicenter, the moment magnitude, the duration of shaking, and the nature of the geologic materials on which a structure would be constructed. Disregarding local variations in ground conditions, the intensity of shaking at different locations generally can be expected to decrease with distance from an earthquake epicenter.

The project site does not occur within an "Earthquake Fault Zone", as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act, and there are no known faults that underlie the project site (DOC 2023c; Group Delta 2022a and 2022b). According to the



NOTATIONS

Holocene fault displacement (during past 10,000 years) without historic record. Geomorphic evidence for Holocene faulting includes sag ponds, scarps showing little erosion, or the following features in Holocene age deposits: offset stream courses, linear scarps, shutter ridges, and triangular faceted spurs. Recency of faulting offshore is based on the interpreted age of the youngest strata displaced by faulting.

Late Quaternary fault displacement (during past 700,000 years). Geomorphic evidence similar to that described for Holocene faults except features are less distinct. Faulting may be younger, but lack of younger overlying deposits precludes more accurate age classification.

Quaternary fault (age undifferentiated). Most faults of this category show evidence of displacement sometime during the past 1.6 million years; possible exceptions are faults that displace rocks of undifferentiated Plio-Pleistocene age. See Bulletin 201, Appendix D for source data.

Late Cenozoic faults within the Sierra Nevada including, but not restricted to, the Foothills fault system. Faults show stratigraphic and/or geomorphic evidence for displacement of late Miocene and Pliocene deposits. By analogy, late Cenozoic faults in this system that have been investigated in detail may have been active in Quaternary time (Data from PG&E, 1993.)

Pre-Quaternary fault (older than 1.6 million years) or fault without recognized Quaternary displacement. Some faults are shown in this category because the source of mapping used was of reconnaissance nature, or was not done with the object of dating fault displacements. Faults in this category are not necessarily inactive.

Regional Fault Map

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

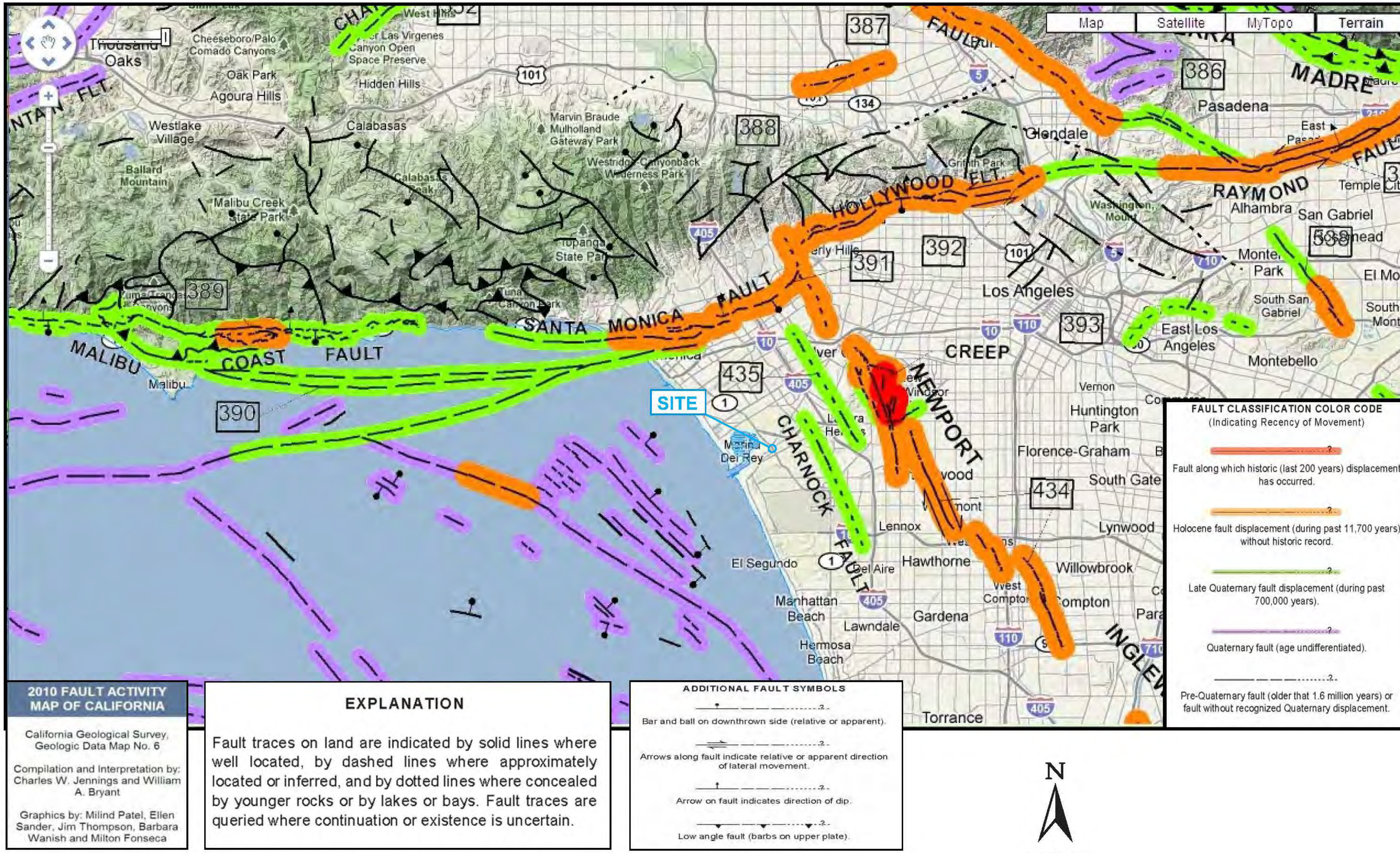
07-LA-1, PM30.16/30.74

EA 33880

Source: Group Delta Consultants Inc., 2022

Caltrans

Figure 2.2.3-2



N
NO SCALE

Local Fault Map

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Group Delta Consultants Inc., 2022

Caltrans

Figure 2.2.3-3

California Department of Conservation's (DOC's) Fault Activity Map of California, the nearest fault to the project site is the Charnock Fault, which is approximately 1.2 miles to the east of the project site (DOC 2023f). The Charnock fault trends northwest-southeast, approximately parallel to the trend of the Newport-Inglewood fault zone and the Overland fault. Throughout the region, there is the potential to experience strong ground shaking and damage from any one of the active or potentially active faults located in Southern California.

The Caltrans ARS Online tool (V3.0.2) was used to develop a preliminary design spectrum for the project site located at a latitude of 33.9750° north, and a longitude of 118.4323° west. The ARS design spectrum incorporated an average shear wave velocity (Vs30) of 210 meters per second (or 690 feet per second), based on the direct shear wave velocity measurements conducted in CPT sounding A-SCPT-022.

The preliminary Caltrans ARS design spectrum for the site has a Peak Ground Acceleration of 0.6g. The deaggregated mean earthquake moment magnitude (M) is 6.6 and the mean site-to-source distance (R) for the 1.0 seconds spectral acceleration is 16.6 km. Note that loose soil at the site (N60<10) would classify as Class S2 soil per Section 6.1.3 of the Caltrans Seismic Design Criteria, Version 2.0.

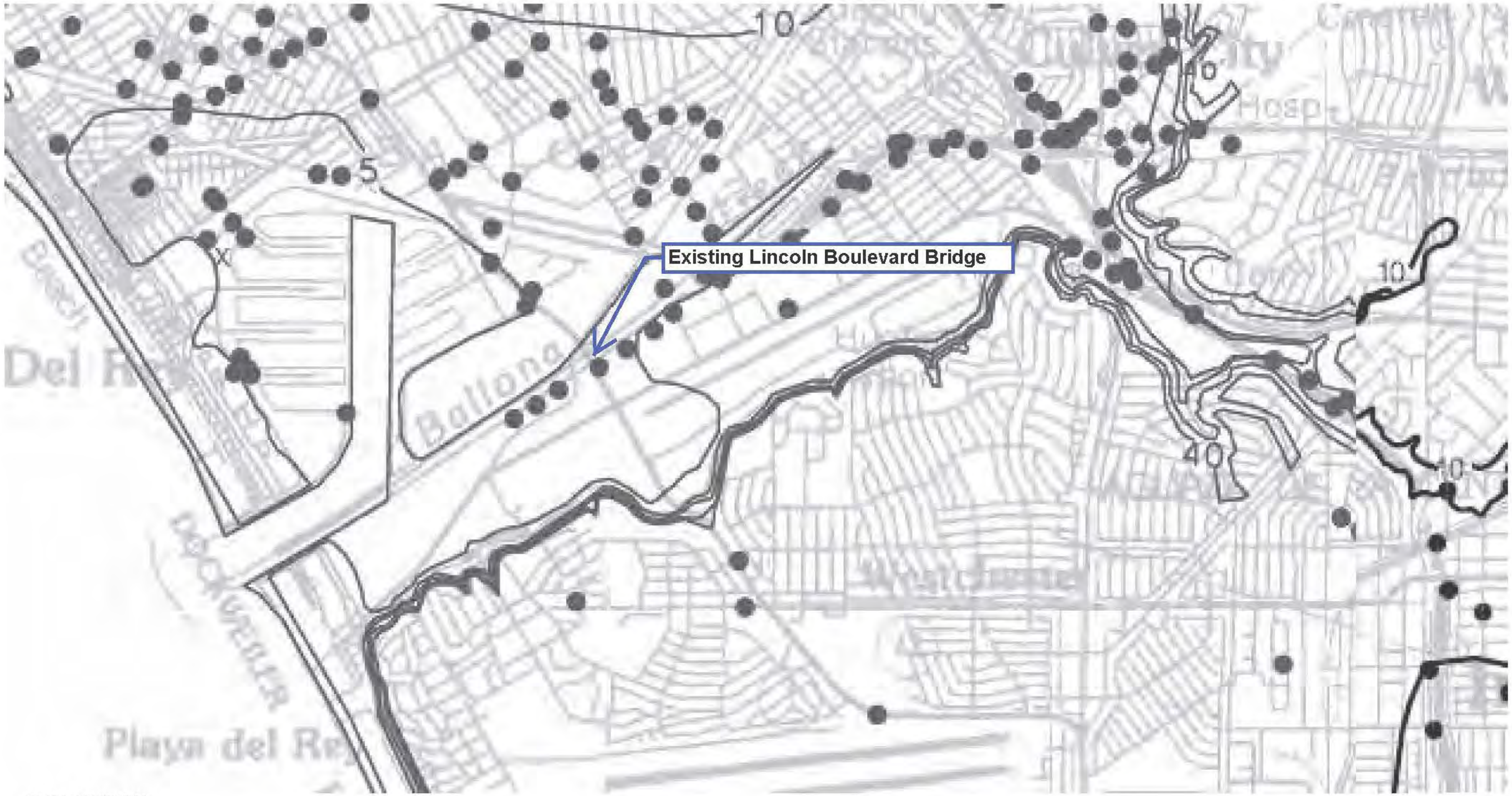
Groundwater

Research conducted as part of the preparation of the project's Structure Preliminary Geotechnical Reports (SPGRs) and Advanced Planning Studies indicates that water surface elevations in the Ballona Creek channel typically vary from roughly 2 feet to 5 feet (MSL), depending in part on tidal fluctuations (Ground Delta 2022a, 2022b; CNS 2022a). Additionally, the High Groundwater Map provided as Figure 2.2.3-4 suggests that groundwater levels may rise to about 5 feet below existing grades in the project site (CNS 2022a).

Groundwater levels within the project site are likely to be closely related to the water surface elevation within Ballona Creek. Flood events within Ballona Creek may cause the groundwater levels to temporarily rise within the surrounding levees. The concrete embankments along the edge of Ballona Creek may increase the lag time in groundwater response. Groundwater levels may also fluctuate over time throughout the site due to changes in the water surface elevation and flow within Ballona Creek, as well as variations in rainfall, irrigation, or drainage conditions (CNS 2022a).

Liquefaction

Liquefaction involves the sudden loss in strength of a saturated, cohesionless soil (sand and non-plastic silts) caused by the build-up of pore water pressure during cyclic loadings, such as



EXPLANATION:

● Approximate location of borehole used to collect groundwater data.

— 5 — Approximate depth to historic high groundwater in feet.

REFERENCE: California Geologic Survey (1998). Seismic Hazard Zone Report for the Venice & Inglew

N

NO SCALE

High Groundwater Map

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: Group Delta Consultants Inc., 2022

Caltrans

Figure 2.2.3-4

that produced by an earthquake. This increase in pore water pressure can temporarily transform the soil into a fluid mass, resulting in sand boils, settlement, and lateral ground deformations. Typically, liquefaction occurs in areas where there are loose to medium dense sands and silts, and where the depth to groundwater is less than 50 feet from the ground surface. In summary, three simultaneous conditions are required for liquefaction:

- Historic high groundwater within 50 feet of the ground surface;
- Liquefiable soils such as loose to medium dense sands; and
- Strong shaking, such as that caused by an earthquake.

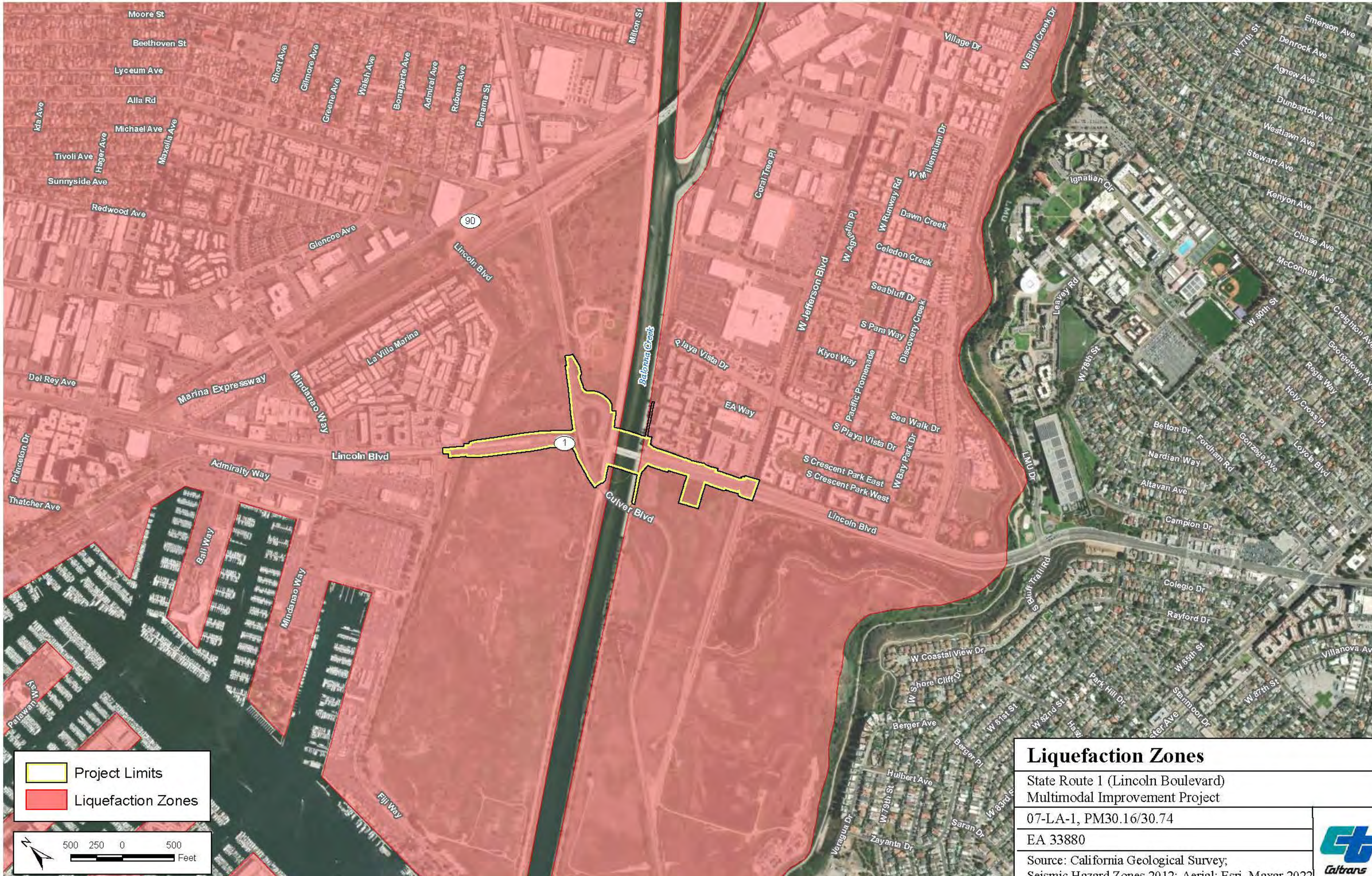
As shown in Figure 2.2.3-5, most of the project site is classified by the DOC as being susceptible to liquefaction (DOC 2023c). Based on the preliminary liquefaction settlement analyses conducted for the Project, the bottom of the liquefiable layers within the project site may extend to elevations -25 feet to -30 feet. Additionally, the total liquefaction settlement associated with the design level earthquake at the project site is anticipated to vary from about 1 inch to 3 inches. Liquefaction settlement may result in a downdrag load on bridge piles, settlement of approach embankments, and lateral spreading of the abutments. Liquefaction also creates the potential for loss of near surface soil strength resulting in a reduced lateral pile capacity for bridges (Group Delta 2022a, 2022b).

Lateral Spreading

Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, density of the soil, and the depth to groundwater.

Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

Based on simplified empirical methods, there appears to be a strong potential for lateral spread of the Ballona Creek levees in the project site. Previous analyses suggest that displacements along the Ballona Creek levees may vary from roughly 6 inches to 18 inches. However, the precise location, depth, and density of the liquefiable layers at the abutment locations will greatly impact the seismic response.


Liquefaction Zones
State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: California Geological Survey;
Seismic Hazard Zones 2012; Aerial: Esri, Maxar 2022
Project Limits
Liquefaction Zones
500 250 0 500
Feet
Lincoln Blvd
Culver Blvd
Ballona Creek
Marina Expressway
Admiralty Way
Mindanao Way
Glencoe Ave
La Villa Marina
Del Rey Ave
Thatcher Ave
Princeton Dr
Bali Way
Fiji Way
Palawan Way
Moore St
Beethoven St
Lyceum Ave
Alla Rd
Michael Ave
Tivoli Ave
Sunnyside Ave
Redwood Ave
Ida Ave
Hager Ave
Maxella Ave
Short Ave
Gilmore Ave
Greene Ave
Walsh Ave
Bonaparte Ave
Admiral Ave
Rubens Ave
Panama St
Milton St
Playa Vista Dr
EA Way
Coral Tree Pl
W Jefferson Blvd
Kiyot Way
Pacific Promenade
S Playa Vista Dr
S Crescent Park East
S Crescent Park West
Sea Walk Dr
W Bay Park Dr
S Para Way
Seabluff Dr
Discovery Creek
Celedon Creek
Dawn Creek
W Runway Rd
W Millennium Dr
Village Dr
W Bluff Creek Dr
Ignatian Cir
LMU Dr
Leavey Rd
W 78th St
W 80th St
W 77th St
Emerson Ave
Denrock Ave
Agnew Ave
Dunbarton Ave
Westlawn Ave
Stewart Ave
Kenyon Ave
Chase Ave
McConnell Ave
Creighton Ave
Georgetown Ave
Regis Way
Holy Cross Pl
Loyola Blvd
Gonzaga Ave
Fordham Rd
Belton Dr
Nardian Way
Altavan Ave
Campion Dr
Colegio Dr
Rayford Dr
Villanova Ave
W 85th St
W 87th St
Stanmoor Dr
Park Hill Dr
W 82nd St
W 81st St
W 83rd St
W Coastal View Dr
W Shore Cliff Dr
S Bluff Trail Rd
Berger Ave
Berger Pl
Hulbert Ave
W 79th St
Saran Dr
Zayante Dr
Veragua Dr
90
1
Figure 2.2.3-5

Subsidence

Subsidence can be caused by the withdrawal of fluids such as groundwater and oil or by the placement of new loadings such as new bridges. The removal of the fluids reduces the strength of the geologic layers, with silts and clays being the most susceptible to subsidence. Oil has not been extracted from the local area since the 1930s (CDFW 2017a). There are no water supply wells located within the project site. With no fluid extraction activities, the project site is not known to be subject to subsidence due to fluid withdrawal. However, settlement can occur when a load from a structure or placement of new fill material is applied, causing distortion in the underlying materials. Therefore, the Project may be susceptible to settlement and subsidence associated with new loads that would result from new and widened roadway surface and two replacement bridges.

Landslides

Earthquakes can induce substantial stresses on slopes and can cause earthquake-induced landslides or ground cracking if the slope fails. Earthquake-induced landslides can occur in sloped areas that are susceptible to strong ground motion during an earthquake. Slope stability can depend on a number of complex variables. The geology, structure, and amount of moisture in the slope affect slope failure potential, as do external processes (i.e., climate, topography, slope geometry, and human activity). The factors that contribute to slope movements include those that decrease the resistance in the slope materials and those that increase the stresses on the slope. Slope failure under static forces occurs when those forces initiating failure overcome the forces resisting slope movement. For example, a soil slope may be considered stable until it becomes saturated with water. Under saturated conditions, the water pressure in the individual pores within the soil increases, reducing the strength of the soil and making it more susceptible to earthquake induced failure. The 1989 Loma Prieta earthquake on the San Andreas Fault triggered thousands of landslides over an area of 5,400 square miles. According to the Reported California Landslides database maintained by the California DOC, there have been no reported landslides within the project site. The nearest reported landslide occurred in the Santa Monica Mountains over eight miles north of the project site (DOC 2023b). As shown in Figure 2.2.3-6, there are no mapped landslide susceptibility zones within the project site. The nearest landslide susceptibility zone is approximately 0.35-mile south of the project site just south of Cabora Drive (DOC 2023c).

Scour Potential for the Existing SR-1/Lincoln Boulevard Bridge

The existing SR-1/Lincoln Boulevard Bridge crosses the Ballona Creek channel, where the potential for scour may be high during heavy storm flow. Scour could also result from a tsunami

Landslide Susceptibility

State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project

07-LA-1, PM30.16/30.74

EA 33880

Source: California Geological Survey; Seismic Hazard Zones 2012; Aerial: Esri, Maxar 2022

Figure 2.2.3-6

as discussed in more detail in Chapter 2.2.1, Hydrology and Floodplain. The Federal Emergency Management Agency (FEMA) Flood Maps and Tsunami Inundation Zones for the project site are shown in Figures 2.2.1-3 and 2.2.1-4. The existing concrete lining of Ballona Creek should help to reduce the potential for scour on the banks of the creek, although the bottom of the channel does not appear to be lined (Group Delta 2022a, 2022b). Scour calculations for the existing bridge are shown below in Tables 2.2.3-1 and 2.2.3-2.

On a related note, CDFW's Ballona Wetlands Restoration Project would involve the realignment of Ballona Creek downstream (west) of the project site and would connect the creek to the historic wetlands that are north and south of the existing creek. To reduce the potential for scour that could result from their project, CDFW would implement mitigation consisting of the construction of an armored sill across the channel from the Culver Boulevard Bridge to the SR-1/Lincoln Boulevard Bridge.

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Alternative 1 would involve no construction activities; therefore, Alternative 1 would result in no effects related to worker or temporary structures being exposed to expansive and corrosive soils, surface fault rupture, seismic ground shaking, liquefaction, lateral spreading, subsidence, or landslides. No temporary structures would be utilized in Ballona Creek such as cofferdams as part of Alternative 1; therefore, there would be no potential for scour to result from Alternative 1. Alternative 1 would have no short-term effects related to geology, soils, or related topics.

Operational Effects

Alternative 1 would involve the continued use of the existing roadways along SR-1/Lincoln Boulevard and Culver Boulevard, as well as the continued use of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek and the Culver Boulevard Bridge over SR-1/Lincoln Boulevard. These bridges were built in 1937 and 1933 respectively. A seismic retrofit of the SR-1/Lincoln Boulevard Bridge occurred in 1994. Under Alternative 1, these structures would remain in place and would not be reconstructed according to updated geotechnical evaluations and current building code requirements.

Cumulative Effects

Since Alternative 1 would involve no construction or operational effects, Alternative 1 would have no potential to contribute to cumulative effects related to geology and soils.

Alternative 2 – Base Alternative

<u>Construction Effects</u>

Expansive and Corrosive Soils

Soils within the project site may be expansive and are likely to be highly corrosive. If present, expansive and corrosive soils typically take time to result in observable damage to structures constructed upon and within them, depending on site specific conditions and the materials involved. Therefore, since these effects would result from long term exposure to expansive and/or corrosive soils, if present, these effects are described below under "Operational Effects". Therefore, construction of Alternative 2 would have no substantial adverse effects related to expansive and corrosive soils.

Surface Fault Rupture

The project site does not contain any known faults; therefore, there is very low potential for surface fault rupture to occur within the project site during the construction period. Also, construction of Alternative 2 would not include any element that would trigger fault rupture, such as the injection of fluids into the subsurface. Therefore, Alternative 2 would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault during the construction period.

Seismic Ground Shaking

The project site is in a seismically active area of Southern California containing both active faults and potentially active faults. Implementation of Alternative 2 would not include any improvements that would trigger seismic activity. While it is technically feasible that seismic activity could occur during the construction period at a time when workers might be susceptible to injury or death because of strong ground shaking, the likelihood of an earthquake occurring during this short time frame is relatively low. There is evidence that activities such as injection of fluids into the subsurface can trigger seismic activity; however, Alternative 2 proposes no such activities. As a result, there would be negligible risks of ground-shaking from implementation of Alternative 2. Therefore, Alternative 2 would not expose people or structures to potential substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic ground shaking during the construction period.

Liquefaction and Lateral Spreading

Construction of Alternative 2 does not have the potential to trigger seismic activity. Therefore, Alternative 2 would not increase the risk of secondary effects of seismicity such as liquefaction and lateral spreading occurring during the construction period. The project site has soils that are prone to liquefaction and lateral spreading; therefore, temporary structures and structures partially constructed would need to be engineered in accordance with CGBSC requirements to minimize risks. Therefore, Alternative 2 would not expose people or structures to potential substantial adverse impacts, including the risk of loss, injury, or death involving liquefaction and lateral spreading during the construction period.

Subsidence

Given that subsidence occurs over time, effects related to subsidence to structures built by Alternative 2 is evaluated below under Operational Effects. Temporary structures utilized during the construction period would be engineered in accordance with the CGBSC and/or other applicable requirements to avoid and minimize effects related to settlement and subsidence that could occur during the construction period. Therefore, Alternative 2 would not expose people or structures to potential substantial adverse impacts, including the risk of loss, injury, or death involving subsidence during the construction period.

Landslides

The project site is relatively flat and there are no landslide susceptibility zones, as defined by CSG, within the project site. As shown in Figure 2.2.3-6, the nearest landslide susceptibility zone is approximately 0.35-mile south of the project site just south of Cabora Drive (DOC 2023c). No aspect of the implementation of Alternative 2 would affect these slopes. Therefore, Alternative 2 would not expose people or structures to potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides during the construction period.

Scour

The use of temporary cofferdams during construction of Alternative 2 could result in increased potential for scour and erosion within the channel if they are being utilized during a large storm event, which could pose risk to downstream structures such as the Culver Boulevard bridge over Ballona Creek. Downstream scour and erosion could also result in effects to CDFW's Ballona Wetlands Restoration Project and habitats establishing therein, if CDFW has implemented their restoration project prior to Alternative 2 being implemented. Scour and erosion would result in diminished water quality downstream that would have effects on fish and marine mammals. As required by **MM HYD-2**, during final design, once the sizes and locations of cofferdams are determined, the City shall conduct hydraulic analyses of the proposed cofferdams to determine requirements for flood conveyance, scour avoidance, timing, and sequencing of the use of cofferdams within Ballona Creek. With implementation of **MM HYD-2**, Alternative 2 would not expose people or structures to potential substantial adverse impacts, including the risk of loss, injury, or death involving scour during the construction period.

<u>Operational Effects</u>

Expansive and Corrosive Soils

Soils within the project site may be expansive and are likely to be highly corrosive. If present, over time these expansive and corrosive soils result in observable damage to structures constructed upon and within them, depending on site specific conditions and the materials involved.

As required by **MM GEO-1**, a site-specific design-level geotechnical field investigation will be conducted during final design. If expansive or corrosive soils are determined to be present, the geotechnical investigation shall provide appropriate recommendations to minimize the effects of expansive and/or corrosive soil on project structures, such as the removal and replacement of such soils and/or concrete encasement of structural foundations.

Surface Fault Rupture

Earthquake fault zones are regulatory zones that encompass surface traces of active faults that have a potential for future surface fault rupture. These zones generally are delineated by establishing a buffer area of about 500 feet on either side of the surface trace of active faults. The construction of new structures on or within 500 feet of an active fault could expose people or structures to potential injury or loss in the event of a rupture of a known earthquake fault. However, there are no known active faults that pass through or within 500 feet of the project site (DOC 2023f). While fault rupture is not necessarily confined to the limits of an active fault trace, the potential for rupture to occur beyond 500 feet is considered to be very low. As a result, based on available geologic data, there are no known active or potentially active faults with the potential for surface fault rupture directly beneath or projecting toward the project site. Therefore, operation of Alternative 2 would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault.

Seismic Ground Shaking

The project site is located within a seismically active region of southern California and has the potential to experience strong ground shaking from local and regional faults. The project site would likely experience at least one substantive (i.e., greater than 6.7 magnitude) earthquake in the next 30 years. Under Alternative 2, the proposed roadway, two bridge structures, streetlights, and earthen fill slopes would be subjected to ground shaking during a moderate to large earthquake and could experience structural damage or deformation if not engineered to withstand such forces.

Applicable provisions of Title 24, the CGBSC would be implemented as part of Alternative 2. Title 24 ensures that structural improvements are adequately designed to withstand the impacts of earthquake ground shaking and requires project sponsors to complete a soils and foundation investigation, which must be overseen by a geotechnical engineer registered in the State of California. Therefore, compliance with the CGBSC will ensure that this would be less than significant impact. Implementation of the regulatory requirements of the CGBSC, to ensure that all improvements are constructed in compliance with the law, is the responsibility of the project engineers and building officials. The geotechnical engineer, as a registered professional with the State of California, is required to comply with the CGBSC and applicable City and County codes, and other relevant requirements, while applying standard engineering practice and the appropriate standard of care for the particular region in California.

As required by **MM GEO-1**, a site-specific design-level geotechnical field investigation will be conducted for the Project. The investigation will provide recommendations to avoid and minimize effects related to seismic ground shaking that are applicable to earthwork, site preparation, and foundation design that were prepared for the Project shall be incorporated in the Project.

Therefore, with implementation of **MM GEO-1,** operation of Alternative 2 would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death due to strong seismic ground shaking.

Liquefaction and Lateral Spreading

The project site contains underlying materials that could be subject to liquefaction and associated ground failures, such as lateral spreading. These seismically induced ground failures could damage the roadway and new bridges that would be built as part of Alternative 2 if not mitigated.

Almost all of the project site is located within a State of California Liquefaction Hazard Zone as mapped by the California Geological Survey (CGS) under the SHMA. New development within a liquefaction hazard zone must comply with California Geological Survey Guidelines for Evaluating and Mitigating Seismic Hazards (Special Publication 117A). Special Publication 117A provides standards for field investigations, soils testing, seismic modeling, and mitigation strategies to overcome risks of liquefaction-relate ground failure.

As required by **MM GEO-1**, a site-specific design-level geotechnical field investigation will be conducted during final design. This analysis would provide additional analyses of liquefaction settlement, including the locations and extent of liquefiable layers, and recommendations for foundations would be developed and implemented accordingly.

With implementation of **MM GEO-1,** operation of Alternative 2 would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death due to liquefaction and lateral spreading.

Subsidence

Alternative 2 has the potential to result in soil subsidence through the introduction of a widened roadway and replacement bridge structures that would increase loading and downward pressure on the soil, which could then cause subsidence.

As required by **MM GEO-1**, a site-specific design-level geotechnical field investigation will be conducted for the Project. This analysis would provide additional analyses of potential subsidence effects of the Project, and recommendations for soil improvement and foundations would be developed and implemented accordingly.

With implementation of **MM GEO-1,** operation of Alternative 2 would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death due to subsidence.

Landslides

As noted above, the project site is flat and there are no landslide susceptibility zones or historic landslides that have occurred within or near the project site. No aspect of the implementation of Alternative 2 would affect off-site areas designated as susceptible to landslides. Alternative 2 would create new slopes with a maximum 2:1 slope; however, these slopes would not be susceptible to landslides as they would be engineered, compacted, and constructed in accordance with the CGBSC.

Therefore, operation of Alternative 2 would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death due to landslides.

Scour Potential

Two approaches to scour analysis were utilized in the Project’s SLR Report to understand the effects to sediment transport and channel bed response that would result from the proposed replacement SR-1/Lincoln Boulevard Bridge over Ballona Creek. The first approach that was used follows the guidelines of LACDWP (2006). The second approach used bridge scour calculations using the hydraulic design package in HEC-RAS based on HEC-18 (FHWA 2012). The benefit of the Los Angeles County Department of Public Works (LACDPW) Scour Analysis approach is that it considers the total bed response, including general and long-term bed adjustment, and local scour. The benefit of the HEC-18 Scour Analysis approach is that it considers the different elements of bridge scour directly in the HEC-RAS model. Generally, both approaches follow all or part, respectively, of Federal Highways guidelines for scour analysis for stream crossings. The methods and analysis results are described below.

LACDPW Scour Analysis

The LACDPW scour calculations for the existing bridge and for the replacement bridge over Ballona Creek proposed as part of Alternative 2 are summarized in Table 2.2.3-1 below. As shown in the table, Alternative 2 would result in additional 0.01 feet of bridge scour compared to the existing condition for all valid analyses. This is a small amount relative to the existing bridge scour.

Table 2.2.3-1 – LACDPW Scour Results (feet) at SR-1/Lincoln Boulevard Bridge

Discharge	Initial Elevation	SLR Scenario	Existing	Proposed
USACE	MHHW	USACE – Int	24.22	24.23
USACE	MHHW	CA – Low	22.48	22.49
USACE	MSL	USACE – Int	22.56	22.57
USACE	MSL	CA – Low	22.57	22.58
USACE	MSL	CA – M-H	22.42	22.43
QCAP	MHHW	USACE – Int	23.11	23.12
QCAP	MHHW	CA – Low	23.15	23.16
QCAP	MSL	USACE – Int	23.21	23.22
QCAP	MSL	CA – Low	23.22	23.23
QCAP	MSL	CA – M-H	23.11	23.12

SLR: Sea Level Rise; USACE: U.S. Army Corps of Engineers; CA: State of California; MHHW: Mean Higher High Water; MSL: Mean Sea Level; QCAP: Los Angeles County Department of Public Works Capital Storm Discharge

Source: Michael Baker Internal 2022a..

HEC-18 Scour Analysis

HEC-18 analysis was conducted for Alternative 2 in the HEC-RAS model using the software's hydraulic design function. The function utilizes hydraulic information from the model to perform the scour calculations. The calculations are limited to contraction, pier, and abutment components of local scour.

Table 2.2.3-2 below summarizes the HEC-18 scour results comparing the existing and proposed condition bridges for all valid simulations examined. The analyses show that on average, the proposed bridge would result in up to an increase of 2.5 feet of pier scour and a decrease in 0.1 feet of contraction score[33] when compared to the existing condition.

Table 2.2.3-2 – HEC-18 Scour Results (feet) at SR-1/Lincoln Bridge

Discharge	Initial Elevation	SLR Scenario	E Contraction	E Pier	E Abutment	E Total	P Contraction	P Pier	P Abutment	P Total
USACE	MHHW	USACE - Int	0.94	9.72	0.0	10.66	0.87	12.21	0.0	13.08
USACE	MHHW	CA - Low	0.97	9.74	0.0	10.71	0.88	12.23	0.0	13.11
USACE	MSL	USACE - Int	0.99	9.76	0.0	10.75	0.92	12.26	0.0	13.18
USACE	MSL	CA - Low	1.00	9.77	0.0	10.77	0.91	12.27	0.0	13.18
USACE	MSL	CA - M-H	0.94	9.72	0.0	10.66	0.87	12.20	0.0	13.07
QCAP	MHHW	USACE - Int	1.00	9.97	0.0	10.97	0.92	12.51	0.0	13.43
QCAP	MHHW	CA - Low	1.02	9.98	0.0	11.00	0.93	12.52	0.0	13.45
QCAP	MSL	USACE - Int	1.02	10.00	0.0	11.02	0.94	12.55	0.0	13.49
QCAP	MSL	CA - Low	1.03	10.00	0.0	11.03	0.95	12.56	0.0	13.51
QCAP	MSL	CA - M-H	0.99	9.97	0.0	10.96	0.92	12.51	0.0	13.43

E: Existing; P: Proposed; SLR: Sea Level Rise; USACE: U.S. Army Corps of Engineers; MHHW: Mean Higher High Water; CA: State of California; QCAP: Los Angeles County Department of Public Works Capital Storm Discharge; MSL: Mean Sea Level.
Source: Michael Baker Internal 2022a

In summary, the LACDPW scour analysis of the SR-1/Lincoln Bridge show that the proposed bridge design would result in an additional 0.01 feet of bridge scour compared to the existing condition for all valid analyses. Results of the HEC-18 scour analysis show a greater degree of scour, with an average increase of 2.4 feet of total scour for the proposed SR-1/Lincoln Boulevard Bridge over Ballona Creek in comparison to the existing bridge. As recommended in the Preliminary Geotechnical Report for the Ballona Creek Bridge and as required by **MM GEO-1**, the preliminary scour evaluation conducted for the Project shall be revised and updated during final design after the completion of future site-specific geotechnical field

[33] The contraction score evaluates the amount of contraction scour occurs when the flow area of a stream is reduced by a natural contraction or a bridge constricting the flow. At a bridge crossing, many factors can contribute to the occurrence of contraction scour. These factors may include the following: the main channel naturally contracts as it approaches the bridge opening; the road embankments at the approach to the bridge cause all or a portion of the overbank flow to be forced into the main channel; the bridge abutments are projecting into the main channel; the bridge piers are blocking a significant portion of the flow area; and a drop in the downstream tailwater which causes increased velocities inside the bridge.

investigation, including the collection of geotechnical borings. With development of a geotechnical report during final design and implementation of its recommendations, no substantial adverse effects are anticipated related to scour.

<u>Cumulative Effects</u>

Alternative 2 would result in potential increased exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury, or death due to expansive soils; corrosive soils; strong seismic ground shaking; liquefaction; lateral spreading; and subsidence. However, with implementation of **MM GEO-1** requiring preparation of a design-level geotechnical field investigation during final design and implementation of recommendations, risks resulting from these geotechnical hazards would be minimized.

Similarly, all of the cumulative projects that involve construction of new structures would be required by the agency issuing their building permits to prepare geotechnical reports that would evaluate and mitigate geotechnical hazards for each of these projects. Therefore, no substantial adverse effects related to geotechnical hazards would likely result from these cumulative projects.

Given that neither Alternative 2 nor the cumulative projects would result in substantial effects related to this topic, there is no potential for cumulative effects regarding geology and soils.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would result in less ground disturbance on the west side of SR-1/Lincoln Boulevard, which would result in decreased potential for erosion and scour of these areas during storm events. Construction of Alternative 2A would result in similar effects when compared to Alternative 2 related to expansive and corrosive soils, surface fault rupture, seismic ground shaking, liquefaction, lateral spreading, subsidence, and landslides.

<u>Operational Effects</u>

Alternative 2A would result in one additional retaining wall along the west side of SR-1/Lincoln Boulevard, which would be designed based on recommendations in the Project's geotechnical report. With implementation of recommendations in the geotechnical report as required in **MM GEO-1**, Alternative 2A would result in the same effects as Alternative 2 related to expansive and corrosive soils, surface fault rupture, seismic ground shaking, liquefaction, lateral spreading, subsidence, and landslides. No additional work would occur under Alternative 2A in

Ballona Creek or Fiji Ditch that could increase scour. Therefore, Alternative 2A would have similar effects to Alternative 2 regarding geology and soils.

Cumulative Effects

Under Alternative 2A, cumulative effects related to geology and soils would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would result in less ground disturbance on both sides of SR-1/Lincoln Boulevard at Fiji Ditch, which would result in decreased potential for erosion and scour of these areas during storm events. Construction of Alternative 2B would result in similar effects when compared to Alternative 2 related to expansive and corrosive soils, surface fault rupture, seismic ground shaking, liquefaction, lateral spreading, subsidence, and landslides.

Operational Effects

Alternative 2B would result in cantilevered sidewalks instead of standard sidewalks, which would be designed based on recommendations in the Project's geotechnical report. With implementation of recommendations in the geotechnical report as required in **MM GEO-1**, Alternative 2B would result in the same effects as Alternative 2 related to expansive and corrosive soils, surface fault rupture, seismic ground shaking, liquefaction, lateral spreading, subsidence, and landslides. No additional work would occur under Alternative 2B in Ballona Creek or Fiji Ditch that could increase scour. The cantilevered approach would reduce work needed within Fiji Ditch, thereby avoiding scour effects. Therefore, Alternative 2B would have similar effects to Alternative 2 regarding geology and soils.

Cumulative Effects

Under Alternative 2B, cumulative effects related to geology and soils would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would result in more ground disturbance on both sides of SR-1/Lincoln Boulevard at Culver Boulevard, which would result in increased potential for erosion and scour of these areas during storm events. Construction of Alternative 2C would result in similar effects when compared to Alternative 2 related to expansive and corrosive soils, surface fault rupture, seismic ground shaking, liquefaction, lateral spreading, subsidence, and landslides.

Operational Effects

Alternative 2C would result in a wider Culver Boulevard Bridge, which would be designed based on recommendations in the Project's geotechnical report. With implementation of recommendations in the geotechnical report as required in **MM GEO-1**, Alternative 2C would result in the same effects as Alternative 2 related to expansive and corrosive soils, surface fault rupture, seismic ground shaking, liquefaction, lateral spreading, subsidence, and landslides. No additional work would occur under Alternative 2C in Ballona Creek or Fiji Ditch that could increase scour. Therefore, Alternative 2C would have similar effects to Alternative 2 regarding geology and soils.

Cumulative Effects

Under Alternative 2C, cumulative effects related to geology and soils would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would result in more ground disturbance on the west side of SR-1/Lincoln Boulevard near the Culver Loop, which would result in increased potential for erosion and scour of these areas during storm events. Construction of Alternative 2D would result in similar effects when compared to Alternative 2 related to expansive and corrosive soils, surface fault rupture, seismic ground shaking, liquefaction, lateral spreading, subsidence, and landslides.

Operational Effects

Alternative 2D would result in an additional pedestrian ramp, which would be designed based on recommendations in the Project's geotechnical report. With implementation of recommendations in the geotechnical report as required in **MM GEO-1**, Alternative 2D would result in the same effects as Alternative 2 related to expansive and corrosive soils, surface fault rupture, seismic ground shaking, liquefaction, lateral spreading, subsidence, and landslides. No additional work would occur under Alternative 2D in Ballona Creek or Fiji Ditch that could increase scour. Therefore, Alternative 2D would have similar effects to Alternative 2 regarding geology and soils.

Cumulative Effects

Under Alternative 2D, cumulative effects related to geology and soils would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM GEO-1:** During final design, a site-specific design-level geotechnical field investigation will be conducted by a registered geotechnical engineer. The investigation shall comply with all applicable State and local building code requirements. Additional field exploration and laboratory testing will be needed in order to provide geotechnical information adequate for final design development.

  The City will ensure that project plans and specifications for new structures, foundation design, earthwork, and site preparation incorporate all of the recommendations contained in the site specific investigation.

  Furthermore, the City will ensure that a structural engineer reviews the site specific recommendations on behalf of the Project, and provides any additional necessary amendments to meet Building Code requirements, and incorporate all applicable recommendations from the investigation in the structural design plans and shall ensure that all structural plans for the Project meet current California Building Code requirements.

2.2.4 Paleontology

Information in this chapter is derived in part from the following technical study:

- Psomas. 2019 (November). Paleontological Identification Report (PIR) and Paleontological Evaluation Report (PER) for the State Route 1 (SR-1/Lincoln Boulevard) Multimodal Improvement Project. Pasadena, CA: Psomas.

Regulatory Setting

Federal

A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects.

16 United States Code (USC) 431–433 (the “Antiquities Act”) prohibits appropriating, excavating, injuring, or destroying any object of antiquity situated on federal land without the permission of the Secretary of the Department of Government having jurisdiction over the land. Fossils are considered “objects of antiquity” by the Bureau of Land Management, the National Park Service, the Forest Service, and other federal agencies.

16 USC 461–467 established the National Natural Landmarks (NNL) program. Under this program property owners agree to protect biological and geological resources such as paleontological features. Federal agencies and their agents must consider the existence and location of designated NNLs, and of areas found to meet the criteria for national significance, in assessing the effects of their activities on the environment under the National Environmental Policy Act (NEPA).

16 USC 470 (the Paleontological Resources Preservation Act) prohibits the excavation, removal, or damage of any paleontological resources located on federal land under the jurisdiction of the Secretaries of the Interior or Agriculture without first obtaining an appropriate permit. The statute establishes criminal and civil penalties for fossil theft and vandalism on federal lands.

23 USC 1.9(a) requires that the use of Federal-aid funds must be in conformity with all federal and State laws.

23 USC 305 authorizes the appropriation and use of federal highway funds for paleontological salvage as necessary by the highway department of any State, in compliance with 16 USC 431–433 above and State law.

State

The primary State law and implementing guidelines protecting fossils are (CEQA and the State CEQA Guidelines. Consistent with Appendix G of the State CEQA Guidelines, this analysis considers whether "the project directly or indirectly destroy a unique paleontological resource or site."

In addition, the Society for Vertebrate Paleontology (SVP) has established standard guidelines for acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation (SVP 2010). Most practicing professional paleontologists in the nation adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most State regulatory agencies accept the SVP standard guidelines as a measure of professional practice. A recent manuscript by Murphey et al. (2014) discusses the SVP's mitigation guidelines and describes the best practices of all phases of mitigation for paleontology in some detail.

Environmental Setting

Paleontological resources are defined as physical evidence of prehistoric life that has been preserved in the geologic record and can be categorized as fossil remains (e.g., teeth, bones, shells, plant material) or trace fossils (e.g., tracks, burrows, coprolites). Generally, remains that are at least 10,000 years old are considered fossils, but resources older than recorded human history and/or early Holocene non-human remains of at least 5,000 radiocarbon years before present (SVP 2010) can be included in this definition. Fossil resources that stratigraphically correlated to human remains or cultural resources may be regarded as both paleontological and archaeological in nature. Fossils are important determining factors for the age and environment of an area at a given point in the geologic past.

Fossils are generally found in sedimentary rock deposits. Occasionally, volcaniclastic sediments, such as airfall tuff, or low-grade metamorphosed rocks have potential to contain fossil resources. To become a fossil, an organism must undergo a series of processes that include rapid burial in an anoxic environment with fine-grained sediments, minimal disturbance, and mineralization of organic material over an extended period of time. The fossils are then eventually exposed by natural erosion or by human disturbance. Because this preservation process is random and infrequent, fossils are considered nonrenewable resources and are of significant interest. Fossils in terrestrial sediments are of particular significance since they occur more infrequently than those from marine environments. There is a strong bias in the fossil record toward organisms with skeletal material, as soft tissue is rarely preserved.

The Project will involve ground disturbance and thus have the potential to impact paleontological resources if these resources are located within the project area; therefore, a PIR and PER was prepared to determine whether there is the potential for resources to be affected by the Project.

Geologic Setting

The project site occurs within the Los Angeles Basin Geomorphic Province; a geologic basin that has accumulated sediments for the past 16 million years. It formed a large triangular basin as the San Andreas Fault system evolved to the east, causing the Transverse Ranges in the west to break off and rotate away from the Peninsular Ranges in the south. The basin filled with over 30,000 feet of Miocene—recent marine and non-marine sediments at the deepest point (Sylvester and Gans 2016). Compression during the Pliocene – Pleistocene has caused uplifting of hills and folds to form throughout the basin (Ingersoll and Rumelhart 1999; Sylvester and Gans 2016). Surface deposits at the project site are primarily Holocene fluvial deposits from Ballona Creek, underlain by Quaternary alluvium and older marine and non-marine sediments.

Stratigraphy

The literature review shows that the project site is underlain by surficial sediments identified as Quaternary younger alluvium, unit 2 (Qya2), which consists of alluvial gravel, sand, and silt/clay of valleys and canyon flood plains (Saucedo et al. 2016). The underlying Quaternary younger alluvium, unit 2 extends to the depth of the borings detailed in previous geotechnical reports (Group Delta 2018; Saucedo et al. 2016). Gravel and sand deposits are present in stream drainages. Quaternary alluvium is present at the surface throughout the southeastern portion of the project site and is overlain by approximately 10 feet of artificial fill within the northwestern portion (Group Delta 2018). These sediments are Holocene in age at shallow depths but increase in age to late Pleistocene at greater depths.

Paleontological Resources Records Search Results

A paleontological records search was requested of Dr. Sam McLeod at the Natural History Museum (LACM) of Los Angeles County, Vertebrate Paleontology Department. Results were received on April 28, 2017. The results indicate that there are no vertebrate fossil localities directly within the boundaries of the project site; however, two fossil-bearing localities are recorded near the project site (LACM 7879 and 5462). The LACM recommended that any substantial excavations that extend greater than five feet in depth in Qya2 be monitored by a paleontological monitor to recover fossil remains.

An online records search using Paleobiology Database Navigator 1.0 online application (paleobiodb.org) located two additional previously prepared paleontological resource localities (LACM 2014 and LACMIP 59) that were not included in the LACM records search. Howard (1936), Willet (1937), and Fitch (1964) recorded a rich vertebrate and invertebrate produced over 30,000 molluscan fossils, as well as ten avian species. One of these avian specimens, *Morus reyana*, is the holotype of the species (the type specimen upon which the species was formally described). Four invertebrate holotypes have also been described from the same locality. A later study of the same area and geologic formation produced fossils of a Rancholabrean seal, *Phoca vitulina* (Barnes and Mitchell 1975). The LACM records search may have excluded these localities because it is from the Palos Verdes sand formation, and not Qya2. However, they are located within 0.5 mile of the project site, and it is possible that similar fossils could be found in the area.

A search of the database of Late Pleistocene vertebrate localities for California (Jefferson 1991a, 1991b, 2006), which includes institutional records and published references, which summarizes all the occurrences of Late Pleistocene vertebrates in California, was also searched for previously recorded paleontological sites within the project site and surrounding areas from other museums. No additional fossil localities were discovered during this search.

An online records search of the University of California Museum of Paleontology (UCMP) collections database was also conducted, but no UCMP sites were present in or adjacent to the project site.

Results of the records searches and fossil taxa lists from the literature review are provided in Table 1 of the PIR-PER.

Surface sediments at and surrounding the project site consist of Qya_2 deposits from Ballona Creek. This sediment type is classified as having a varying degree of sensitivity for paleontological resources when using different rating systems, as shown in Table 2.2.4-1. Regardless, project excavation activities that involve disturbance of native soils could result in the disturbance and/or destruction of paleontological resources that may be present in deeper Pleistocene alluvial deposits that underlie the Project.

Table 2.2.4-1
Paleontological Sensitivity Ratings Using California Department of Transportation and Bureau of Land Management Guidelines

Geologic Unit	PFYC Rating	Caltrans Rating	Likelihood of Impact and Recommendations from PIR-PER
Quaternary alluvium (Qya_2)	2 (Low)	High	Likelihood increases with depth. Moderate sensitivity (PFYC rating 3) in excavations 5 feet below fill

PFYC: Potential Fossil Yield Classification; Caltrans: the California Department of Transportation; PIR-PER: Paleontological Identification Report-Paleontological Evaluation Report.
Source: Psomas 2019.

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Since Alternative 1 would involve no grading or other ground disturbing activities, there would be no short-term effects to paleontological resources under this alternative.

Operational Effects

Alternative 1 would not have any operational effects related to paleontological resources as operation of Alternative 1 would involve no ground disturbance.

Cumulative Effects

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to paleontological resources.

Alternative 2 – Base Alternative

Construction Effects

Alternative 2 would involve ground disturbance including cuts into slopes adjacent to SR-1/Lincoln Boulevard north of Culver Boulevard and excavations related to new bridge abutments that will occur within sensitive geological units that have yielded scientifically significant paleontological resources in the past. Project excavation activities that would involve disturbance of native soils could result in the disturbance and/or destruction of paleontological resources that may be present in deeper Pleistocene alluvial deposits that underlie the Project, which would be a significant impact.

As required by **MM PALEO-1,** to minimize possible impacts to paleontological resources, a Paleontological Mitigation Plan (PMP) will be prepared to specify the locations at which paleontological monitoring would be required, including all areas where ground disturbance would exceed fill into Quaternary alluvium. Other earthwork proposed for the remainder of the project site that is in engineered fill would not result in impacts to sensitive paleontological resources and thus would not require monitoring or mitigation during construction. With implementation of **MM PALEO-1**, no substantial adverse effects would result related to paleontological resources.

<u>Operational Effects</u>

Alternative 2 would not have any operational effects related to paleontological resources as operation of Alternative 2 would involve no ground disturbance.

<u>Cumulative Effects</u>

Implementation of Alternative 2 and cumulative projects could unearth paleontological resources. Should this occur, it is reasonable to assume that each project would be required to stop work, evaluate, and recover the paleontological resources before work is able to continue. As a result, there would be no cumulative impacts related to paleontological resources.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would install a new retaining wall along the west side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge, which would result in a greater depth of excavation at this location; however, temporary effects west of SR-1/Lincoln Boulevard would be reduced. Overall, Alternative 2A would have similar effects related to paleontological resources as Alternative 2.

<u>Operational Effects</u>

Alternative 2A would result in the same impacts to paleontological resources as Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2A, cumulative effects related to paleontological resources would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Widening of the Roadway Over Fiji Ditch to Avoid Direct Impacts to a Wetland Feature

<u>Construction Effects</u>

Alternative 2B would reduce the construction footprint within Fiji Ditch on both sides of SR-1/Lincoln Boulevard when compared to Alternative 2, which would result in a minor decrease in the likelihood of encountering unknown paleontological resources in these areas.

<u>Operational Effects</u>

Alternative 2B would result in the same impacts to paleontological resources as Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2B, cumulative effects related to paleontological resources would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2C would require approximately 250 square feet of additional temporary construction easements on the east and west sides of SR-1/Lincoln Boulevard at the location of the replacement Culver Boulevard Bridge that would be needed to construct a wider bridge than is assumed under Alternative 2. Therefore, Alternative 2C would result in a minor increase in the potential to encounter unknown paleontological resources when compared to Alternative 2.

<u>Operational Effects</u>

Alternative 2C would result in the same impacts to paleontological resources as Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2C, cumulative effects related to paleontological resources would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Provide Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

<u>Construction Effects</u>

Alternative 2D would require approximately 250 square feet of additional temporary construction easements within the BWER on the west of SR-1/Lincoln Boulevard south of the proposed replacement Culver Boulevard Bridge. This additional area would be utilized for construction access and work related to the construction of a new bicycle/pedestrian ramp connection that would be constructed under Alternative 2D. Therefore, Alternative 2A would result in a minor increase in the potential to encounter unknown paleontological resources when compared to Alternative 2.

Operational Effects

Alternative 2D would result in the same impacts to paleontological resources as Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to paleontological resources would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM PALEO-1:** The City shall develop and the contractor shall implement a Paleontological Mitigation Plan (PMP). The PMP shall be prepared by a qualified principal paleontologist (defined as a paleontologist meeting the SVP Standards) during final design once adequate project design information regarding subsurface disturbance location, depth and lateral extent is available. The PMP shall be submitted to Caltrans for review and approval prior to beginning construction. The PMP shall identify areas where depth of excavation will extend into areas that are considered sensitive for paleontological resources, based on the final grading plans. The paleontological monitoring program will include the following:
    - The qualified principal paleontologist shall be present at pre-construction meetings to confer with contractors who will be performing ground disturbing activities.
    - Paleontological monitors, under the direction of a qualified principal paleontologist, shall be on site to inspect cuts for fossils at all times during original ground disturbance involving sensitive geologic formations.
    - When fossils are discovered, the paleontologist (or paleontological monitor) should recover them. Construction work in these areas shall be temporarily halted or diverted to allow the prompt recovery of fossils.
    - Any fossils collected from the project site by the paleontological monitor(s) and/or principal paleontologist shall be prepared to the point of identification, sorted, and cataloged.

- Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited in a scientific institution with paleontological collections. The PMP shall include a written repository agreement for curation into an established museum repository.
- At the conclusion of construction, the City will prepare a Paleontological Mitigation Report (PMR) for submittal to Caltrans outlining the results of paleontological monitoring. The PMR shall include a summary of findings with an itemized inventory of specimens.

2.2.5 Hazardous Waste/Materials

- Group Delta. 2021a. Initial Site Assessment, State Route 1 (SR-1/Lincoln Boulevard) Multimodal Improvement Project. Los Angeles, CA: Group Delta.

Regulatory Setting

Hazardous substances are defined by State and federal regulations as substances that must be regulated in order to protect the public health and the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive, or chemically reactive. The term "hazardous substances" encompasses every chemical regulated by the United States Department of Transportation. Hazardous materials generally are chemicals that have the capacity to cause a health hazard or harm to the environment during an accidental release. The California Code of Regulations Title 22, Chapter 11, Article 2, Section 66261, provides the following definition:

- *A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either: (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed.*

According to California Code of Regulations Title 22 (Chapter 11, Article 3), substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous. Hazardous wastes are hazardous substances that no longer have a practical use, such as materials that have been abandoned, discarded, spilled, or contaminated, or that are being stored prior to disposal. They are by-products of processes and/or activities that can pose a substantial or potential hazard to human health or the environment when improperly managed.

Toxic substances may cause short-term or long-term health effects, ranging from temporary effects to permanent disability or death. Examples of toxic substances include most heavy metals, pesticides, benzene, gasoline, hexane, sulfuric acid, lye, explosives, pressurized canisters, and radioactive and biohazardous materials. Soils may also be toxic because of accidental spilling of toxic substances.

Hazardous materials, including hazardous substances and wastes, are regulated by many State and federal laws. Statutes govern the generation, treatment, storage, and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

Federal

Hazardous Waste Regulations

In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA) (42 United States Code [USC] Sections 6901-6992K) to regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA provides the basic framework for the federal regulation of hazardous waste.

Emergency Planning and Community Right-To-Know

The Emergency Planning and Community Right-To-Know Act of 1986 (42 USC Sections 11001-11050), also known as SARA Title III, requires businesses and local emergency planning and response agencies to report information about the amounts of materials that businesses use, release, and/or spill. The act also provides the public with information about potential hazards in their communities.

Occupational Safety

Federal occupational safety and health regulations contain provisions with respect to hazardous materials management. The applicable federal law is the Occupational Safety and Health Act (OSHA) of 1970 as amended (29 USC, Sections 651-678; 29 Code of Federal Regulations [CFR] 1910). Federal OSHA requirements are designed to promote worker safety, worker training, and worker right-to-know. OSHA establishes regulatory requirements primarily by promulgating occupational safety and health standards. These standards establish permissible exposure limits (PELs) for a number of air contaminants (29 CFR sec. 1910.1000). These PELs define the amount of hazardous airborne chemicals to which an employee safely could be exposed over specific periods of time. When administrative or engineering controls cannot achieve compliance with PELs, protective equipment or other protective measures must be used. Employers are required to train a team of employees to applicable federal OSHA-defined (29 CFR 1910.120, Hazardous Waste Operations and Emergency Response Standards) levels to respond to accidental releases of hazardous materials and, as appropriate, to retain on-call contractors to respond to accidental releases of hazardous materials.

State

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is also authorized by the federal government to implement RCRA in the State. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during construction.

Hazardous Waste Regulations

RCRA allows individual States to develop their own programs for the regulation of hazardous waste, provided the State program is at least as stringent as RCRA. The State of California has developed the California Hazardous Waste Control Law (Health and Safety Code sec. 25100 et seq.; 22 CCR sec. 66260.1 et seq.), which is modeled closely after RCRA. The United States Environmental Protection Agency (USEPA) granted final authorization to California for RCRA enforcement on August 1, 1992. These regulations identify standards for the classification, management, transportation, and disposal of hazardous waste.

Environmental Setting

Historical Land Uses

During the late 1800's, the project site was located within the Ballona Wetlands, which were used for recreational purposes by hunting lodges and resorts in the area. Rail lines were constructed through the project site in the 1880's and roadways were then built, including SR-1/Lincoln Boulevard and Culver Boulevard between 1900 and 1910.

Oil and natural gas exploration and production began in the 1930's in the vicinity of the project site. In 1934, Ballona Creek was channelized within the project site. Between the 1930s and 1950s, oil derricks were built throughout the project vicinity. Oil production generally ceased in the 1940s within the project vicinity, and the area has been used for natural gas storage since then. The lands west of SR-1/Lincoln Boulevard within the project site compose the eastern part of SoCalGas Company's Playa del Rey Storage Field. The field produced oil for about 10 years during the 1930s. In 1942, a depleted portion of the oil field was turned into an underground natural gas storage facility and has been operated as such ever since. The natural gas is stored in the sandstone geologic formations approximately 6,100 feet below ground level and is covered by 1,500 feet of impermeable shale that provides a seal on the porous storage area below. SoCalGas monitors and operates the gas field and oversees a system of monitoring wells and pipelines within the Ballona Reserve. As part of the ongoing safety and maintenance efforts, SoCalGas performs routine patrols and have set up a soil gas monitoring program performed by a California Public Utilities Commission third party consultant (CDFW 2017a; Group Delta 2021a).

The Marina del Rey harbor was constructed in the late 1950s and 1960s and involved dredging the harbor area down to subtidal depths. The dredged material from the harbor was deposited within the Ballona Wetlands generally north of Ballona Creek and west of SR-1/Lincoln Boulevard.

Environmental Records Search

The Initial Site Assessment (ISA) prepared for the Project included a review of reasonably ascertainable environmental regulatory agency databases to identify known or suspected environmental concerns that may be encountered during construction activities.

The only site that is listed Environmental Data Resources (EDR) database radius search that is located within the project site is “The Roisman Avi, Tosco – 76 Station #5071, Unocal Corp SS 5071, Tosco Corporation, Service Station 5071, Marina Unocal” located at 4801 SR-1/Lincoln Boulevard, Marina Del Rey, California 90292 within APN 4224-009-905. This parcel contains the Fiji Gateway Park and is owned by the County of Los Angeles. According to available documents reviewed via GeoTracker, a leak was discovered in an underground storage tank (UST) at the facility in January 1986. The leak was discovered during tank closure and was reportedly caused by corrosion. The underlying groundwater was reportedly impacted with volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH). As early as December 1992, on-going remediation efforts have been made to remove free product in the groundwater. The facility was granted closure in April 2013, and a well destruction report was submitted in June 2013.

Records in the Vicinity

There were 119 sites listed in the EDR database radius search for areas within 0.5-mile of the project site. The radius search area included the project site and a one-mile radius from the project site. Of the 119 sites listed in the EDR, the ISA evaluated 12 sites in greater detail that were up-gradient, near the project site, and those listings that involved violations more severe than administrative/financial/record keeping violations. More information on these 12 sites is provided in Table 2.2.5-1.

Table 2.2.5-1 – EDR Properties Within 0.5-Mile of the Project Site

Historical Use Information on the Project Site and Nearby Properties

The ISA included a review of information included Sanborn insurance maps, historic aerial photographs, historic topographic maps, and city directories. No additional records of concern were identified as a result of the review of historical use information.

Regulatory Agency Records

To identify hazardous waste sites near the project site, available records from regulatory agencies were evaluated as part of the ISA as described in more detail below.

Envirostor Database

The ISA included a review of available Department of Toxic Substances Control (DTSC) files published on the online records database Envirostor. The purpose of this search was to identify available evidence of unauthorized releases of hazardous materials to the surface, subsurface soil, and/or groundwater within a 0.5-mile radius of the project site. No records were identified on the Envirostor database pertaining to any records that occurred within the project site. Surrounding or adjacent properties identified in the Envirostor Database outside the project site are summarized below in Table 2.2.5-2.

Table 2.2.5-2 – Envirostor Database Findings Within 0.5-Mile of the Project Site

VOC: volatile organic compounds; LAUSD: Los Angeles Unified School District; DTSC: Department of Toxic Substances Control; LARWQCB: Los Angeles Regional Water Quality Control Board.
Source: Group Delta 2021a.

GeoTracker Database

The ISA included a search of the State Water Resources Control Board's (SWRCB's) GeoTracker database. GeoTracker contains recorded data of unauthorized releases of petroleum products and hazardous materials to the groundwater and other cases handled by the SWRCB or the Regional Boards. Cases typically handled by the Regional Boards include releases from USTs. All of the listings were evaluated, and those properties/records with the most potential to effect the project site are summarized below in Table 2.2.5-3.

Table 2.2.5-3 – State Water Resources Control Board Database Findings Within 0.5-Mile of the Project Site

California Geologic Energy Management Division (CalGEM)

As part of the ISA, the CalGEM website was reviewed for oil and gas wells within 0.5-mile of the project site. The project site is located within the vicinity of oil and gas fields, and multiple wells are located within 1,500 feet of the project site. Well information is provided below in Table 2.2.5-4. In summary, no active oil and gas wells were noted within 1,500 feet of the project site. One idle oil and gas well (API: 03705547) was noted approximately 307 feet south of the most northeastern point of the project site, south of Culver Boulevard. Group Delta's review of the CalGEM database revealed no records of leaks, spills, incidents or accidents for these respective wells. Therefore, no additional potential hazardous waste sites were identified as a result of the CalGEM database review.

Table 2.2.5-4 – California Geologic Energy Management Division (CalGEM) Records Within 0.5-Mile of the Project Site

Well American Petroleum Institute (API) #	Lease Name	Operator	Well Status	Well Number	Well Type
037015373	Eastern	Eastern Oil Co.	Plugged	1	Oil and Gas
03713967	Hughes	Edwin W. Pauley & D. Frankel	Plugged	1	Oil and Gas
03713968	Kidson Et. Al.	Edwin W. Pauley & D. Frankel	Plugged	2	Oil and Gas
03713400	Kidson	Donald Frankel	Plugged	1-1	Oil and Gas
03713836	Vulcan	County of Los Angeles	Plugged	1	Oil and Gas
03705546	Del Rey	A.L. Kitselman	Plugged	1	Oil and Gas
03705547	Del Rey	A.L. Kitselman	Idle	2	Oil and Gas

Source: Group Delta 2021a.

Office of California State Fire Marshall

The ISA also included a review of available files through the online National Pipeline Mapping System (NPMS) database maintained by the Office of California State Fire Marshal. NPMS is a Geographic Information System database of pipeline information for the specific intent of emergency response.

The NPMS shows a gas transmission pipeline as occurring along Jefferson Boulevard, perpendicular to SR-1/Lincoln Boulevard. The pipeline is identified as part of Southern California Gas Company's active natural gas system.

Also, a hazardous liquid pipeline was mapped along SR-1/Lincoln Boulevard within the project site. The pipeline is identified as Ventura 10-inch System, which is active and carries crude oil. No records of releases were available for either of these pipelines. No other pipelines are listed within 1,000 feet of the project site.

Based upon the Caltrans site evaluation criteria, Caltrans has determined that the Ventura 10-inch crude oil pipeline presents a potential hazardous waste hazard for the Project.

Site Reconnaissance

As part of the ISA, a site visit was conducted by staff from Group Delta. The following observations were made during their site visit:

- One stormwater drainage channel was observed along the eastern side of SR-1/Lincoln Boulevard south of the intersection of Fiji Way and SR-1/Lincoln Boulevard within the existing right-of-way in the project site.
- An empty concrete-lined utility box, assumed to have been used previously for utilities, was noted as occurring along the eastern side of SR-1/Lincoln Boulevard within the existing right-of-way within the project site.
- Signage indicating the presence of a petroleum pipeline and a large concrete utility bunker was noted along the eastern side of SR-1/Lincoln Boulevard just south of the BWER within the existing right-of-way.
- Wooden electrical utility poles were observed throughout the project site.
- Transformers were observed to be on several of the utility poles within the project site.

Airport Land Use Plan

The project site is not located within an airport land use plan. The nearest boundary of an airport land use plan is for Los Angeles International Airport, which ends south of the project site near West Manchester Avenue (City of Los Angeles 2023a). Given that the project site is not within an airport land use plan, this topic is not discussed further in this Draft EIR/EA.

Fire Zone

The project site is not located within a fire zone; however, the Los Angeles Fire Department (LAFD) identifies areas south of Jefferson Boulevard are within a fire zone (LAFD 2023a).

<u>Summary of Findings</u>

- The project site contains soil and groundwater that could be contaminated from historic land uses and/or releases.
- The project site contains APN 4224-009-905, which is located at the southeast corner of SR-1/Lincoln Boulevard and Fiji Way. This parcel is owned by Los Angeles County and is used as Fiji Gateway Park. This property was formerly used as Tosco/Unocal/76 Station #5071 facility. The underlying groundwater has been reportedly impacted by a historic release of VOCs and TPH from this property. The facility was granted closure in April 2013.

- Parcels in the project site, including APNs 4211-007-920, 4211-007-910, 4211-015-900, and 4211-015-903, have been historically utilized as part of the Pacific Electric Railway, which was located adjacent to the current pathway of Culver Boulevard from approximately 1924 through approximately 1952. Soils that are within railroad ROW areas commonly contain a variety of contaminants, including herbicides, heavy metals, petroleum products, VOCs, semi-volatile organic compounds (SVOCs), and asbestos.
- The project site contains a parcel that was historically used as a land disposal site known as the Celery Dump. This property is APN 4211-016-900, which is generally located north of Culver Boulevard and west of SR-1/Lincoln Boulevard.
- The project site contains SR-1/Lincoln Boulevard, which has been in operation since approximately 1938. The project site also contains Culver Boulevard which has been in operation since around 1963. There is the potential for aerially deposited lead (ADL) to be present in undisturbed areas of soil within the project site that is a result of historic leaded gasoline emissions, which include areas of undisturbed soil immediately north, south, northeast, and southwest of SR-1/Lincoln Boulevard and areas north and south of Culver Boulevard.
- The SR-1/Lincoln Boulevard Bridge and the Culver Boulevard Overpass were constructed by at least 1938. Similarly, the two abutments north of the Culver Boulevard bridge was built around 1924. Given their age, it is possible that asbestos containing materials were used in components of these bridge structures and that lead based paint was applied during bridge construction or operations.
- Guardrails and signs exist at multiple locations within the project site. At least eleven wooden poles were identified on the northern and southern side of SR-1/Lincoln Boulevard north of the Ballona Creek. These structures are likely to contain treated wood. Treated wood is typically treated with hazardous preserving chemicals that protect the wood from insect predation and fungal decay during its use.
- Yellow striping exists along the roadways throughout the project footprint within SR-1/Lincoln Boulevard, the Culver Boulevard loop off-ramp, and along Culver Boulevard. It is likely that the striping contains lead and chromium.
- Dredge and fill materials were historically deposited in areas west of SR-1/Lincoln Boulevard and north of Culver Boulevard. Samples were previously taken in these areas as part of CDFW’s Ballona Wetlands Restoration Project, which determined soils at this location had concentrations of silver, copper, arsenic, lead, zinc, DDT, and arsenic above screening level criteria for residential and/or commercial uses. Signs of the presence of petroleum hydrocarbons were also detected (CDFW 2017a).

- The project site is located within a Methane Zone designated by the City of Los Angeles Department of Building and Safety. Additionally, a previous archeological record for a surrounding site located at the intersection of SR-1/Lincoln Boulevard and Jefferson Boulevard indicated the presence of methane and hydrogen sulfide gas during an archeological survey.

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Alternative 1 would involve no ground disturbance or impacts to existing bridge structures, which may contain hazardous materials such as aerially deposited lead, asbestos containing materials, lead based paint, etc. Alternative 1 would not require excavations within areas that potentially contain hydrogen sulfide gas. Alternative 1 would result in no effects to existing utilities, including the crude oil pipelines that occurs along SR-1/Lincoln Boulevard. Also, Alternative 1 would not require the use of any hazardous materials during construction. Therefore, Alternative 1 would have no effects related to hazardous waste and materials.

Operational Effects

Alternative 1 would not increase the transport or use of any hazardous materials within the project site. Any ongoing transport of such materials along the roadways within the project site would continue under Alternative 1, as would usage of such materials intermittently for repair projects along the existing roadways in the project site. Therefore, Alternative 1 would result in no operational effects related to hazardous waste and materials. However, Alternative 1 would result in a SR-1/Lincoln Boulevard Bridge over Ballona Creek that is not designed to accommodate projected sea level rise; therefore, there is potential that the bridge could be flooded and release of hazardous materials from the bridge or roadway could result under Alternative 1.

Cumulative Effects

Alternative 1 would involve no ground disturbance within the project site or impacts to existing bridge structures. Also, Alternative 1 would not require the use of any hazardous materials during construction.

Alternative 1 would consist of the continued use and maintenance of the existing bridge and roadways in the project site. Therefore, no changes to existing potential exposure to hazardous waste and materials to would result from Alternative 1.

Therefore, Alternative 1 would not contribute to cumulative effects related to hazardous waste and materials.

Alternative 2 – Base Alternative

Construction Effects

Construction of Alternative 2 would have the potential to encounter hazardous materials and to release such materials thereby potentially during excavating of subsurface soil, disturbing groundwater, or removing structures. Once construction is complete, the disturbance creating these potential exposures would cease.

If hazardous materials were to be encountered during construction of Alternative 2, the potential effects that could occur would include exposure of construction workers to the hazardous materials, exposure of the public to such materials, exposure of the ecological receptors to hazardous substances in the sediments, the potential for disturbance to or onsite handling of materials to contaminate either the groundwater or surface water near the exposure, or the risk of releasing hazardous materials in such a way as to promote or allow migration beyond the construction site, through either the air, soil, groundwater, or surface water. The extent of potential effects would depend upon the nature of the hazardous material encountered and the extent to which exposure and/or offsite migration might occur. If hazardous materials are encountered during construction, they would be managed in accordance with existing local, State, and federal regulations, as appropriate.

For all materials encountered during construction, standard best practices would be followed, including sampling and analysis (health risk, threat to ground water, and waste characterization), field engineering monitoring, compliance with locally required measures prescribed by the appropriate agencies (i.e., Department of Toxic Substances Control, LAFD, Regional Water Board), worker safety, and industrial hygiene compliance services for waste management and oversight. In addition, all contaminated soils will be appropriately transported and disposed offsite as RCRA hazardous, non-RCRA-hazardous, or non-hazardous waste (as defined by the State of California).

Hazardous Materials Potentially in Soil and Groundwater

Implementation of Alternative 2 could result in a hazard to the public by potentially disturbing existing contaminated soil and groundwater within the project site. Exposure to hazardous materials could occur from the excavation, stockpiling, handling, and/or transportation of soils or other materials that contain hazardous materials. Also, groundwater encountered during construction below the water table could encounter contaminated groundwater.

Due to historical uses and releases of hazardous materials associated with the former Bon Marche Cleaners site, a Chevron Station, the Celery Dump site, the Pacific Electric Railway, the deposition of fill material from Marina del Rey, and other recorded sites, it is possible that excavation activities within areas west of Lincoln Boulevard within the project site could encounter contaminated groundwater and soils. As required by **MM HAZ-1**, a sampling and analysis plan (SAP) shall be developed and implemented during final design to evaluate soil and groundwater throughout the project site. The results of the soil and groundwater sampling will determine which soils can be reused on site, and appropriate handling, transport, and disposal requirements for other soils. All hazardous material encountered would be managed, transported, and disposed of in accordance with all applicable laws and regulations; therefore, effects are not anticipated.

Aerially Deposited Lead

There is the potential for ADL to be present in undisturbed areas of soil within the project site originating from historic leaded gasoline emissions. Therefore, as required by **MM HAZ-2,** an ADL Site Investigation shall be conducted during final design and prior to construction. The ADL Site Investigation report shall classify soil in accordance with hazardous waste criteria and provide recommendations for soil management.

Hazardous Materials in Structures

The project site contains structures that may contain hazardous materials.

Asbestos was used in many building materials prior to 1978; however, may have been used into the early 1980s. Asbestos containing materials include fireproofing, acoustic ceiling material, transite pipe, roofing materials, thermal insulation, and other building materials. It is of primary concern when it is friable (that is, material that can be easily crumbled); during demolition, if not properly identified and mitigated, asbestos fibers could become airborne.

Regulatory actions restricted the amount of lead in paints and primers manufactured after January 1, 1978, and limited the uses of paints in areas where consumers would have direct access to painted surfaces in non-industrial facilities. Prior to 1978, lead based paint may have been used in building construction or maintenance.

Demolition of structures that likely contain regulated and/or potentially hazardous materials, including lead based pain and asbestos. The South Coast Air Quality Management District (SCAQMD) requires asbestos containing materials to be removed prior to demolition. Also, the SCAQMD has identified specific asbestos abatement procedures to remove asbestos material and that require safety features to prevent the release of asbestos.

As required by **MM HAZ-3**, a hazardous materials survey shall be prepared during final design to evaluate any structures that are potentially impacted by asbestos containing materials or lead based paint. This includes SR-1/Lincoln Boulevard Bridge over Ballona Creek, the Culver Boulevard Bridge over SR-1/Lincoln Boulevard, and the remnant abutments from a Pacific Electric Railway bridge that are located immediately north of the Culver Bridge overcrossing. All three of these structures would need to be removed as part of Alternative 2. The survey shall be conducted under the oversight of a California Division of Occupational Safety and Health (Cal/OSHA) Certified Asbestos Consultant (CAC) and California Department of Public Health (CDPH) lead Inspector/Assessor and will serve to confirm the presence or absence of asbestos containing materials and lead based paint through collection of bulk samples and laboratory analysis. During final design, special provisions shall be prepared based on the results of the hazardous materials survey(s) that direct the Contractor on the management of hazardous building materials during construction. Asbestos removal will be conducted in conformance with Rule 1403 of the SCAQMD and with EPA National Emissions Standards for Hazardous Air Pollutants. Similarly, any lead based paint requiring removal would be handled and disposed of in accordance with all applicable laws and regulations. Therefore, adverse effects are not anticipated related to hazardous materials in structures with implementation of **MM HAZ-3**.

Methane and Hydrogen Sulfide Gas

As discussed in the ISA, the project site is located within a Methane Zone designated by the City of Los Angeles Department of Building and Safety. These hazardous gas zones are usually a result of naturally surfacing tar and crude oil, or shallow soil contamination by old oil drilling wells. Additionally, wetlands and landfill sites are known to produce methane soil gas. As a result, the Los Angeles Methane Zone Map categorizes two types of zones: methane buffer zones and methane zones. Each zone is based on the proximity to a methane soil gas source. Most development projects within these zones require a methane mitigation system. Thus, methane soil gas testing is common in these zones. Additionally, a previous archeological record for a surrounding site located at the intersection of SR-1/Lincoln Boulevard and Jefferson Boulevard indicated the presence of methane and hydrogen sulfide gas during an archeological survey.

Therefore, given the risk for methane and hydrogen sulfide gas during construction, as required by **MM HAZ-4,** a site health and safety plan shall be prepared by the contractor and submitted to the City prior to any field work. The plan shall include requirements for monitoring during construction as well as control measures, such as the use of exhaust and ventilation systems to reduce methane and hydrogen sulfide gas levels; use of respiratory and other personal protective equipment; and training and educating workers.

Treated Wood Waste

Treated wood is typically treated with preserving chemicals that protect the wood from insect attack and fungal decay during its use. Treated wood waste (TWW) may be generated by the Project through the removal of posts along metal beam guard railing, thrie-beam barrier, piles, utility poles, or roadside signs. The DTSC requires that TWW either be disposed of as a hazardous waste, or if not tested, the generator may presume that TWW is a hazardous waste (to avoid the time and expense involved in completing laboratory testing) and manage the waste by Alternative Management Standards (AMS). The AMS are described in the California Code of Regulations, Title 22, Division 4.5, Chapter 34. The AMS lessen storage requirements, extend accumulation periods, allow shipments of presumed hazardous waste TWW without manifests and registered hazardous waste haulers, and permit disposal at specific non-hazardous waste landfills.

Existing Street Lighting

All streetlights along SR-1/Lincoln Boulevard and Culver Boulevard within the project site would be removed during construction of Alternative 2. Therefore, Alternative 2 would result in the generation of hazardous waste through the removal of street lighting, as well as through the removal of signal and electrical components (i.e., bulbs or LED bulbs, timers, switches, sensors, circuit boards, etc.) during construction. These materials shall be disposed of in accordance with applicable laws and regulations.

Release of Hazardous Materials Through Routine Transport, Use, or Disposal

Construction of Alternative 2 would involve the transportation, use, storage, and disposal of limited quantities of hazardous materials such as paints, solvents, sealers, thinners, adhesives, fuels (e.g., gasoline; diesel), hydraulic fluids, oils, lubricants, grease, and asphalt. The release of hazardous materials could occur during routine transport, disposal, or use, or through reasonably foreseeable upset and accident conditions during equipment and hazardous materials use. These construction materials would be used for a short period of time and are not acutely hazardous. These materials would be properly stored when not in use and would be disposed of according to applicable requirements. Diesel-powered construction equipment utilized for the Project would to be in good working order. However, equipment could spill oil, fuel, or fluids during normal usage or during refueling or maintenance activities. Adherence to regulations set forth by county, State, and federal agencies regarding storage, handling, and disposal of these materials would reduce the potential for hazardous materials impacts during construction. The potential for the release of hazardous materials during project construction is considered low, and in the event a release was to occur, it would not result in a significant hazard to the public, surrounding land uses, or environment due to the small quantities of materials being used at the site. Furthermore, construction activities would be conducted using Best Management Practices (BMPs) in accordance with a Storm Water Pollution Prevention Plan. Applicable BMPs would include but are not limited to, vehicle and equipment fueling and maintenance; material delivery, storage, and use; spill prevention and control; and solid and hazardous waste management. The application of BMPs would limit the potential for accidents involving hazardous materials. In the event an accidental release occurs, work will stop, and emergency spill, containment, and cleanup procedures will be implemented.

The transport of hazardous materials is regulated by the DTSC and transporters of hazardous materials would be required to be licensed by DTSC and inspected by the CHP. Delivery vehicles would be required to utilize roadways approved for transportation of hazardous materials and maintain the proper storage containers for hazardous materials.

Also, the Project would involve the removal of pavement markings that may contain elevated concentrations of lead and chromium. It is anticipated that the debris produced when this older yellow striping is ground from the pavement will likely meet the definition of hazardous waste. Therefore, yellow traffic stripes and pavement marking material shall be tested prior to construction. If lead chromate concentrations exceed regulatory requirements, then standard environmental practices for the routine removal of traffic striping and pavement markings will be implemented as described in **MM HAZ-5**. Traffic stripes and pavement marking materials that needs to be removed as part of the Project will be performed by the Contractor prior to construction. If this testing reveals that the striping to be removed requires special handling, the Contractor will ensure that the best practices for the removal of pavement markings are utilized that are outlined in **MM HAZ-5.**

The Project would demolish and dispose of asbestos containing materials and lead based paint. As required by **MM HAZ-3**, a hazardous materials survey shall be conducted during final design to evaluate any structures that are potentially impacted by asbestos containing materials or lead based paint. Through testing and abatement in accordance with regulatory requirements, no substantial effects would result related to asbestos containing materials and lead based paint.

Emitting Hazardous Emissions or Handling Hazardous or Acutely Hazardous Materials, Substances, or Waste Near a School

Schools, daycare centers, nursing homes, and hospitals are considered sensitive receptors because children, the elderly, and the ill are more susceptible than healthy adults to the impacts of hazardous materials. The only such facility within 0.25 mile of the project site is Playa Vista Elementary School located at 13150 Bluff Creek Drive, Playa Vista, California 90094. Construction of Alternative 2 would involve the transportation, use, and disposal of limited quantities of hazardous materials such as paints, solvents, adhesives, fuel, lubricants, grease, and asphalt. However, construction of Alternative 2 would not involve the transport or emission of acutely hazardous materials that could result in a danger to any nearby schools as there are no schools in close proximity to the proposed construction activities. Furthermore, because such activities would comply with relevant federal, State, and local regulations, potential Project impacts to construction workers, the general public, and nearby schools would be minimized.

Cortese List Analysis

California Government Code Section 65962.5 requires various State agencies to compile lists of hazardous waste disposal facilities, unauthorized releases from underground storage tanks, contaminated drinking water wells and solid waste facilities where there is known migration of hazardous waste. A significant impact of the Project may occur if the project site is included on any of the above lists and if it would pose an environmental hazard to surrounding sensitive uses. The Celery Dump site located generally north of Culver Boulevard and west of SR-1/Lincoln Boulevard, was part of a Statewide evaluation of solid waste disposal facilities and as such would be considered part of Government Code Section 65962.5, also known as the Cortese List. However, as part of the site's prior evaluation soil and groundwater at this location were tested for chemicals that would have been associated with past activities at the dump site. Samples were collected between 1988 and 1996 that were analyzed for VOCs, SVOCs, metals, polychlorinated biphenyls (PCBs), petroleum hydrocarbons (including fuel oil), and pesticides (including Lindane). The results indicated that no chemicals associated with the Celery Dump site were detected in the samples collected.

Also, the Roisman Avi, Tosco – 76 Station #5071, Unocal Corp SS 5071, Tosco Corporation, Service Station 5071, Marina Unocal" located at 4801 Lincoln Boulevard, Marina Del Rey would also be considered a Cortese List property. This parcel contains the Fiji Gateway Park and is owned by the County of Los Angeles. According to available documents reviewed via GeoTracker, a leak was discovered in an underground storage tank (UST) at the facility in January 1986. The leak was discovered during tank closure and was reportedly caused by corrosion. The underlying groundwater was reportedly impacted with volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH). As early as December 1992, on-going remediation efforts have been made to remove free product in the groundwater. The facility was granted closure in April 2013, and a well destruction report was submitted in June 2013. As required by **MM HAZ-1,** during final design the City shall develop and implement a sampling and analysis plan (SAP) to evaluate soil and groundwater throughout the project site. The results of the soil and groundwater sampling will determine which soils can be reused on site, and the appropriate handling, transport, and disposal requirements for other soils. The SAP will include three shallow borings to 5 feet below ground surface within impacted areas within the former Tosco/Unocal/76 Station #5071 facility that experienced a release of petroleum products. Soil samples shall be collected and analyzed for TPH, VOCs, and metals and handling and disposal requirements for this property would be developed.

Therefore, although a portion of Alternative 2 would occur on a hazardous materials site compiled pursuant to Government Code Section 65962.5, Alternative 2 would not create a significant hazard to the public or the environment.

Potential Effects to Existing Pipelines

The project site contains a 10-inch crude oil pipeline, the Ventura 10-inch crude oil pipeline, which is located along SR-1/Lincoln Boulevard as well as a gas transmission pipeline along Jefferson Boulevard (Group Delta 2021a). Given that construction of Alternative 2 would involve ground disturbance in proximity of these lines, there is potential for rupture of these lines unless they are properly identified, marked, and avoided or relocated. During final design, coordination with utility providers would occur in accordance with standard City and Caltrans processes, which would minimize potential effects. Additional information on coordination with utility providers and utility relocations is provided in Chapter 2.1.9, Utilities and Service Systems.

Fire Zone

The project site is not located within a fire zone; however, the LAFD identifies areas south of Jefferson Boulevard are within a fire zone (LAFD 2023a).

Construction of Alternative 2 would not alter the slope, prevailing winds, and other factors, within the project site in any way that would exacerbate wildfire risks. During construction, vegetation would be cleared from the temporary and permanent impact areas of the project site. This would result in a temporary decrease in potential wildfire fuel load in an area that is adjacent to a fire zone.

The Project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Alternative 2 would relocate existing overhead power lines, but would not result in an increase in these overhead lines or in their hazard to the public.

<u>Operational Effects</u>

Operation of Alternative 2, consisting of modified roadways and bridges, would not affect any identified recognized environmental conditions nor would Alternative 2 present a material risk of harm to public health or the environment because Alternative 2 would be inert and would not involve ongoing operations with the exception of periodic maintenance. Therefore, no adverse effects related to hazardous materials are anticipated during operation of Alternative 2.

Release of Hazardous Materials Through Routine Transport, Use, or Disposal

Alternative 2 would modify existing roadways within the project site. Alternative 2 would not introduce any new land uses that would involve or require the routine transport, use, or disposal of hazardous materials. Potentially hazardous materials, such as fuels and solvents, may be used during routine maintenance activities during operation of Alternative 2. However, maintenance activities would be similar to those currently being conducted on these existing roadways and would be conducted in compliance with existing government regulations. Also, once built, hazardous materials might be transported along SR-1/Lincoln Boulevard and Culver Boulevard following completion of Alternative 2; however, such situations would be similar to existing conditions and therefore do not represent an impact of Alternative 2. Operation of Alternative 2 is not expected to result in either an increase or decrease in the shipment of hazardous waste within the project site. Also, operation of Alternative 2 would not generate long-term hazardous material-related effects to the environment, other than providing an improved transportation facility that would sometimes be used for shipment of hazardous materials/cargo similar to other existing and planned roads and in accordance with current regulations regarding the transport of hazardous materials and wastes. Since Alternative 2 would remove a southbound bottleneck where three lanes merge down to two and would provide new sidewalks and bicycle lanes, Alternative 2 would reduce traffic collisions. With fewer collisions, there would be less chance for hazardous materials or substances to be emitted during a traffic accident. Therefore, operation of Alternative 2 would not result in substantial effects related to the routine transport, use, or disposal of hazardous materials.

Alternative 2 would result in an increased bridge height that would be more resilient to sea level rise when compared to the existing bridge structure. Therefore, the existing Ventura 10-inch crude oil pipeline that occurs along SR-1/Lincoln Boulevard which would be relocated onto the new bridge would be better protected from the effects of flooding and potential accidental release of pollutants into Ballona Creek.

Emitting Hazardous Emissions or Handling Hazardous or Acutely Hazardous Materials, Substances, or Waste Near a School

There is one school within 0.25-mile of the project site. Transportation of hazardous materials along SR-1/Lincoln Boulevard and Culver Boulevard after construction would be similar to existing conditions and would not be an impact of Alternative 2. Therefore, there would be no substantial effects related to hazardous emissions or the handling of hazardous materials, substances, or waste to nearby schools during operation of Alternative 2.

Cortese List Analysis

As noted above, the Celery Dump site and the Roisman Avi, Tosco – 76 Station #5071, Unocal Corp SS 5071, Tosco Corporation, Service Station 5071, Marina Unocal property would be considered Cortese List properties; however, past testing conducted by others did not identify any chemicals within the soil tested at the Celery Dump site. Prior remediation efforts have occurred at the Rosman Avi, Tosco – 76 Station #5071 site. Nonetheless, as required by **MM HAZ-1**, additional soil and groundwater sampling will occur to confirm current status of these soils and ground water within the project site prior to beginning construction. Given that operation of Alternative 2 would not involve any impacts to soils or groundwater within the Celery Dump site and given sampling would occur prior to any impacts at the Roisman Avi, Tosco – 76 Stations #5071 site, there would be no substantial effects during operations related to Coreste List properties.

<u>Cumulative Effects</u>

The primary types of hazardous material-related impacts attributable to Alternative 2, in conjunction with construction of related projects, are from the handling of contaminated soil and groundwater that may be encountered during construction. All cumulative projects are subject to the hazardous materials and waste regulatory standards discussed above. Also, other cumulative projects would be evaluated on a project-by-project basis and would be required to reduce potential impacts, similar to what has occurred thus far with the Phase I ISA prepared for this Project. Cumulative projects could contain contamination like the Alternative 2. However, the simultaneous disturbance of contaminated materials within the cumulative impact study aera is somewhat unlikely. But even if simultaneous disturbance of contaminated materials were to occur, they would not combine to create a cumulatively considerable impact because of the regulatory oversight, implementation of OSHA requirements, and industry standard practices such that the potential for adverse effects is minimized. Therefore, there would be no substantial cumulative effect related to public hazards associated with disturbance of existing contaminated soil or groundwater.

Fire Zone

Alternative 2 would not alter the slope, prevailing winds, or other factors within the project site in any way that would exacerbate wildfire risks. Temporarily impacted areas would be re-planted with native plant species that could burn in the event of a fire. However, these temporary impact areas already contain a mix of non-native, invasive grasses and native plant communities that are already flammable. Therefore, the Project would result in similar fire hazards to the roadway and users of the roadway when compared to existing conditions.

The Project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Alternative 2 would relocate existing overhead power lines, but would not result in an increase in these overhead lines or in their hazard to the public.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would involve less ground disturbance than Alternative 2 on the west side of SR-1/Lincoln Boulevard between Fiji Ditch and north of Culver Boulevard. Therefore, there would be less potential for exposure to aerially-deposited lead that may occur within shallow soils at this location. Also, this area of the project site contains a portion of the Celery Dump site, which was historically used as a land disposal site and which is classified as a Cortese List property. Therefore, Alternative 2A would reduce potential effects to legacy hazardous materials within soils or groundwater in this area located within APN 4211-016-900, which is generally located north of Culver Boulevard and west of SR-1/Lincoln Boulevard.

By reducing ground disturbance overall, Alternative 2A would also reduce potential effects related to worker exposure to hydrogen sulfide gas, which may occur in the project site.

Alternative 2A would result in the same demolition of structures as Alternative 2, as well as the same effects to existing utilities and pavement markings.

Alternative 2A would require the same level of use of hazardous materials during construction as would Alternative 2.

Therefore, construction of Alternative 2A would have fewer effects related to hazardous waste and materials than Alternative 2.

Operational Effects

Alternative 2A would not increase the transport or use of any hazardous materials within the project site. Any ongoing transport of such materials along the roadways within the project site would continue under Alternative 2A, as would usage of such materials intermittently for repair projects along the existing roadways in the project site.

Operation of Alternative 2A would not otherwise increase risks or exposure related to hazardous waste and materials or wildfire. Therefore, Alternative 2A would result in the same level of operational effects related to hazardous waste and materials as would Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to hazardous waste and materials would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would involve less ground disturbance than Alternative 2 within Fiji Ditch on both sides of SR-1/Lincoln Boulevard. Therefore, there would be less potential for exposure to aerially-deposited lead that may occur within shallow soils at this location. Also, this area of the project site within Fiji Ditch may contain contaminated soils and/or groundwater due to historical land uses. Therefore, Alternative 2B would reduce potential effects to legacy hazardous materials within soils or groundwater in this area by reducing ground disturbance within Fiji Ditch.

By reducing ground disturbance overall, Alternative 2B would also reduce potential effects related to worker exposure to hydrogen sulfide gas, which may occur in the project site.

Alternative 2B would result in the same demolition of structures as Alternative 2, as well as the same effects to existing utilities and pavement markings.

Alternative 2B would require the same level of use of hazardous materials during construction as would Alternative 2.

Therefore, construction of Alternative 2B would have fewer effects related to hazardous waste and materials than would Alternative 2.

Operational Effects

Alternative 2B would not increase the transport or use of any hazardous materials within the project site. Any ongoing transport of such materials along the roadways within the project site would continue under Alternative 2B, as would usage of such materials intermittently for repair projects along the existing roadways in the project site.

Operation of Alternative 2B would not otherwise increase risks or exposure related to hazardous waste and materials or wildfire. Therefore, Alternative 2B would result in the same level of operational effects related to hazardous waste and materials as would Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to hazardous waste and materials would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would involve greater ground disturbance than Alternative 2 on both sides of SR-1/Lincoln Boulevard north of the existing Culver Boulevard bridge to construct a wider bridge. Therefore, there would be greater potential for exposure to aerially-deposited lead that may occur within shallow soils at these locations. Also, these areas of the project site may contain contaminated soils and/or groundwater due to historical land uses. Therefore, Alternative 2C would increase potential effects to legacy hazardous materials within soils or groundwater in these areas by increasing ground disturbance.

By increasing ground disturbance overall, Alternative 2C would also increase potential effects related to worker exposure to hydrogen sulfide gas, which may occur in the project site.

Alternative 2C would result in the same demolition of structures as Alternative 2, as well as the same effects to existing utilities and pavement markings.

Alternative 2C would require a similar level of use of hazardous materials during construction as would Alternative 2.

Therefore, construction of Alternative 2C would have greater effects related to hazardous waste and materials when compared to Alternative 2.

Operational Effects

Alternative 2C would not increase the transport or use of any hazardous materials within the project site. Any ongoing transport of such materials along the roadways within the project site would continue under Alternative 2C, as would usage of such materials intermittently for repair projects along the existing roadways in the project site.

Operation of Alternative 2C would not otherwise increase risks or exposure related to hazardous waste and materials or wildfire. Therefore, Alternative 2C would result in the same level of operational effects related to hazardous waste and materials as would Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2C, cumulative effects related to hazardous waste and materials would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

<u>Construction Effects</u>

Alternative 2D would involve greater ground disturbance than Alternative 2 on the west side of SR-1/Lincoln Boulevard north of Ballona Creek Bike Path and south of Culver Boulevard to provide a bicycle/pedestrian ramp connection. Therefore, there would be greater potential for exposure to aerially-deposited lead that may occur within shallow soils at this location. Also, this area of the project site may contain contaminated soils and/or groundwater due to historical land uses. Therefore, Alternative 2D would increase potential effects to legacy hazardous materials within soils or groundwater in these areas by increasing ground disturbance.

By increasing ground disturbance overall, Alternative 2D would also increase potential effects related to worker exposure to hydrogen sulfide gas, which may occur in the project site.

Alternative 2D would result in the same demolition of structures as Alternative 2, as well as the same effects to existing utilities and pavement markings.

Alternative 2D would require a similar level of use of hazardous materials during construction as would Alternative 2.

Therefore, construction of Alternative 2D would have greater effects related to hazardous waste and materials when compared to Alternative 2.

<u>Operational Effects</u>

Alternative 2D would not increase the transport or use of any hazardous materials within the project site. Any ongoing transport of such materials along the roadways within the project site would continue under Alternative 2D, as would usage of such materials intermittently for repair projects along the existing roadways in the project site.

Operation of Alternative 2D would not otherwise increase risks or exposure related to hazardous waste and materials or wildfire. Therefore, Alternative 2D would result in the same level of operational effects related to hazardous waste and materials as would Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2D, cumulative effects related to hazardous waste and materials would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM HAZ-1:** During final design, the City shall develop and implement a sampling and analysis plan (SAP) to evaluate soil and groundwater throughout the project site. The results of the soil and groundwater sampling will determine which soils can be reused on site, and the appropriate handling, transport, and disposal requirements for other soils. The SAP will include the following minimum requirements:
    - A site investigation work plan and health and safety plan shall be prepared in accordance with Caltrans District 7 requirements for review and will be submitted for approval by the Office of Environmental Engineering during final design and prior to performing the work.
    - Site investigations shall be conducted for all partial acquisition and temporary construction easement parcels, which would include soil and groundwater sampling.
    - Three shallow borings to 5 feet below ground surface shall be advanced within impacted areas within APN 4224-009-905. This property was formerly the Tosco/Unocal/76 Station #5071 facility that experienced a release of petroleum products. Soil samples shall be collected and analyzed for TPH, VOCs, and metals.
    - A limited shallow site investigation will be conducted for impact areas that were previously utilized as part of the Pacific Electric Railway including APNs: 4211-007-920, 4211-007-910, 4211-015-900, and 4211-015-903 to evaluate the presence of potential contaminants originating from railroad land use. Railroad contaminants including metals, petroleum hydrocarbons, herbicides, VOCs, SVOCs, and asbestos shall be analyzed in samples collected from borings along the former railroad alignment.
    - Utility structures requiring removal prior to project construction would have a site investigation performed for hazardous materials and petroleum products.

Removal shall be completed in accordance with applicable laws and regulations. Transformers shall be removed by the utility that operates the equipment prior to construction.

- Groundwater encountered during construction shall be tested to determine quality and impact on construction, disposal options or National Pollutant Discharge Elimination System (NPDES) permit discharge limitations, and health and safety requirements. The soil samples shall be collected at or just below the static water level to sample soil that may have been affected by contaminated groundwater migrating from offsite properties. Each soil sample shall be labeled with a unique sample identification number, placed in to plastic bags in coolers with ice packs, along with the appropriate chain of custody documentation, and delivered to the analytical testing laboratory within the required testing method holding times.
- All soil samples collected for these site investigations shall be collected into Teflon-lined metal or plastic tubes and sealed to minimize the loss of volatile compounds. The groundwater samples shall be collected into glass bottles with Teflon-lined lids and the appropriate preservatives to seal in and preserve volatile compounds, if any. If groundwater is being collected for VOCs, the volume of the groundwater shall be sufficient that no headspace is left in the container when sealed. Each sample shall be labeled with a unique sample identification number, placed in to plastic bags in coolers with ice packs, along with the appropriate chain of custody documentation, and delivered to the analytical testing laboratory within the required testing method holding times.
- All soil and groundwater samples shall be analyzed for petroleum hydrocarbons using USEPA Test Method 8015 or equivalent, including a silica gel cleanup (USEPA Test Method 3630C or equivalent) to remove naturally occurring polar non-petroleum hydrocarbons that could interfere with the analyses.
- All soil and groundwater samples shall be analyzed for VOCs using USEPA Test Method 8260 or equivalent (at a minimum, the test methods shall be capable of detecting PCE).
- Following receipt of laboratory results of the chemical testing, soil or groundwater material that exceeds the DTSC screening levels and/or EPA Region 9 Regional Screening Levels for soil or the public health goals (PHGs) and/or maximum contaminant levels (MCLs) for groundwater, and cannot be reused on site shall be transported by a DTSC-licensed hazardous waste hauler and disposed of at an offsite disposal facility licensed to receive the contaminated soil and groundwater. Alternative disposal options, such as onsite burial, shall be

considered for soil and groundwater found not to contain contaminates or having concentrations below the regulatory thresholds.

  - When completed, all site investigation reporting shall be submitted to the City and Caltrans Environmental Engineering staff. The City or the Contractor shall implement recommendations from the site investigations to avoid and minimize potential effects from hazardous materials.

- **MM HAZ-2:** An ADL Site Investigation shall be conducted during final design and prior to Project construction. A work plan for the ADL Site Investigation shall be prepared by the City and submitted to Caltrans Environmental Engineering for review and approval. The ADL Site Investigation will include soil borings approximately every 150 feet along both sides of SR-1/Lincoln Boulevard and Culver Boulevard within the project site. The ADL Site Investigation report shall classify soil in accordance with hazardous waste criteria and provide recommendations for soil management. The Contractor shall implement the recommendations from the ADL Site Investigation regarding the handling, usage, and disposal of soils.
- **MM HAZ-3:** A hazardous materials survey shall be conducted during final design to further evaluate any structures that may contain asbestos containing materials or lead based paint including the SR-1/Lincoln Boulevard Bridge over Ballona Creek, the Culver Boulevard Bridge over SR-1/Lincoln Boulevard, and the remnant abutments of the Pacific Electric Railway bridge that are located immediately north of the Culver Bridge overcrossing. The survey shall be conducted under the oversight of a California Division of Occupational Safety and Health (Cal/OSHA) Certified Asbestos Consultant (CAC) and California Department of Public Health (CDPH) lead Inspector/Assessor and will serve to confirm the presence or absence of asbestos containing materials and lead based paint through collection of bulk samples and laboratory analysis. During final design, special provisions for the Project shall be prepared based on the results of the hazardous materials survey(s) that direct the contractor on the management of hazardous building materials during construction.
- **MM HAZ-4:** Prior to construction, the Contractor will develop a health and safety plan. The Contractor shall submit the plan to the City prior to beginning any field work. The plan shall include requirements for health and safety-related monitoring during construction as well as applicable control measures for areas of the project site, such as the use of exhaust and ventilation systems to reduce methane and hydrogen sulfide gas levels; use of respiratory and other personal protective equipment; and training and educating workers. The Contractor shall implement the health and safety plan throughout the construction period.

- **MM HAZ-5:** Testing of yellow traffic striping and pavement marking material that needs to be removed as part of the Project shall be performed by the City or Contractor prior to construction. If the testing reveals that striping to be removed requires special handling, the Contractor shall implement the following measures to avoid and minimize potential impacts associated with the removal of pavement markings.
  - The Contractor shall submit a written work plan to the City for approval. The plan shall describe the locations and approaches to the removal, storage, and disposal of yellow thermoplastic and yellow painted traffic stripe and pavement markings.
  - Yellow thermoplastic and yellow paint to be removed from the project site will be disposed of at a Class 1 disposal facility or a Class 2 disposal facility. Testing of residue is likely to require the EPA's Total Lead and Chromium Method 7000 series. If the yellow thermoplastic and yellow painted traffic stripe and pavement marking residue is transported to a Class 1 disposal facility, a manifest shall be used, and the transporter shall be registered with the California Department of Toxic Substances Control. The contractor will obtain the United States Environmental Protection Agency Identification Number and sign all manifests as the generator within 2 working days of receiving sample test results and approving the test methods.
  - The Contractor shall prepare a project specific Lead Compliance Plan to minimize worker exposure to lead while handling removed yellow thermoplastic and yellow paint residue. Personal protective equipment, training, and washing facilities required by the Contractor's Lead Compliance Plan shall be supplied by the Contractor. The Contractor shall submit the plan to the City for review and approval prior to beginning work.
  - Prior to removing yellow thermoplastic and yellow painted traffic stripe and pavement marking, personnel who have no prior training, including State personnel, shall complete a safety training program provided by the Contractor that meets State requirements.
  - Where grinding or other methods approved by the City are used to remove yellow thermoplastic and yellow painted traffic stripe and pavement marking, the removed residue, including dust, shall be contained and collected immediately. Sweeping equipment shall not be used. Collection shall be by a high efficiency particulate air (HEPA) filter equipped vacuum attachment operated concurrently with the removal operations or other equally effective methods approved by the City.

- The removed yellow thermoplastic and yellow painted traffic stripe and pavement marking residue shall be stored and labeled in covered containers, conforming to State provisions. The containers shall be a type approved by the United States Department of Transportation for the transportation and temporary storage of the removed residue. The containers shall be handled so that no spillage will occur. The containers shall be stored in a secured enclosure at a location within the project site until disposal, as approved by the City.

2.2.6 Air Quality

Information in this section is partially derived from the Air Quality Report that was prepared for this Project in May 2024, which is provided as Appendix Q (Caltrans 2024a).

Regulatory Setting

Federal

Federal Clean Air Act

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion State law. These laws, and related regulations by the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and State ambient air quality standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM_{10}) and particles of 2.5 micrometers and smaller ($PM_{2.5}$), Lead (Pb), and sulfur dioxide (SO_2). In addition, State standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H_2S), and vinyl chloride. The NAAQS and State standards are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision. Both State and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act (NEPA). In addition to this environmental analysis, a parallel “Conformity” requirement under the FCAA also applies.

Conformity

The conformity requirement is based on FCAA Section 176(c), which prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. “Transportation Conformity” applies to highway and transit projects and takes place on two levels: the regional (or planning and programming) level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. USEPA regulations at 40 Code of Federal Regulations 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for State standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for CO, NO_2, O_3, PM_{10} and $PM_{2.5}$, and in some areas (although not in California), SO_2). California has nonattainment or maintenance areas for all of these transportation-related "criteria pollutants" except SO_2, and also has a nonattainment area for Pb; however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP) and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), FHWA, and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope and the "open-to-traffic" schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP; the project has a design concept and scope[34] that has not changed significantly from those in the RTP and TIP; project analyses have used the latest planning assumptions and EPA-approved emissions models; and in PM areas, the Project complies with any control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

[34] "Design concept" means the type of facility that is proposed, such as a freeway or arterial highway. "Design scope" refers to those aspects of the project that would clearly affect capacity and thus any regional emissions analysis, such as the number of lanes and the length of the project.

United States Environmental Protection Agency

The USEPA is responsible for implementing the CAA, which was first enacted in 1955[35] and amended numerous times thereafter. The CAA established federal air quality standards known as the NAAQS. These standards identify levels of air quality for criteria pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe (with an adequate margin of safety) to protect the public's health and welfare. The USEPA is responsible for setting and enforcing the NAAQS for criteria pollutants. The NAAQS are shown in Table 2.2.6-1.

The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The USEPA requires each State with federal nonattainment areas to prepare and submit an SIP. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution and thereby attain or maintain federal standards by using a combination of performance standards and market-based programs within the SIP-identified time frame.

Table 2.2.6-1 – California and National Air Quality Standards

State

California Ambient Air Quality Standards

The CARB oversees California air quality policies. California ambient air quality standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards are generally more stringent than the NAAQS and include four additional pollutants: sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulates. The CCAA, which was approved in 1988, requires each local air district in the State to prepare an Air Quality Management Plan (AQMP) that complies with the CAAQS.

Regional

South Coast Air Quality Management District

In the SoCAB, the SCAQMD is the agency responsible for protecting public health and welfare through the administration of federal and State air quality laws, regulations, and policies. Included in the SCAQMD's tasks are the monitoring of air pollution, the preparation of the AQMP for the SoCAB, and the promulgation of rules and regulations.

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35 The Air Pollution Control Act, the predecessor to the Clean Air Act, was enacted in 1955.

SCAG is the federally designated Metropolitan Planning Organization and the State-designated transportation planning agency for six counties: Riverside, San Bernardino, Los Angeles, Ventura, Imperial, and Orange.

The SCAQMD and SCAG are jointly responsible for formulating and implementing the AQMP for the SoCAB. SCAG's Regional Mobility Plan and Growth Management Plan form the basis for the land use and transportation control portion of the AQMP.

Air Quality Management Plan

The current regional plan applicable to the Project is the SCAQMD's 2022 AQMP. The SCAQMD is responsible for ensuring that the SoCAB meets the NAAQS and CAAQS by reducing emissions from stationary (area and point), mobile, and indirect sources. To accomplish this goal, the SCAQMD prepares AQMPs in conjunction with the SCAG, County transportation commissions, and local governments; develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary.

The 2022 AQMP was adopted on December 2, 2022, by the SCAQMD Governing Board. The 2022 AQMP evaluates integrated strategies and measures to meet the following NAAQS (SCAQMD 2022a):

- 8-hour O_3 target of 80 parts per billion (ppb) by 2024, 75 ppb by 2032, 70 ppb by 2038;
- Annual $PM_{2.5}$ (12 micrograms per cubic meter [μg/m^3]) by 2025;
- 1-hour O_3 (120 ppb) by 2023; and
- 24-hour PM2.5 (35 μg/m^3) by 2023.

South Coast Air Quality Management District Rules

The Project would be required to comply with existing SCAQMD rules for the reduction of fugitive dust and criteria pollutant emissions. The following rules are most relevant to the Project.

SCAQMD Rule 201 requires a "Permit to Construct" prior to the installation of any equipment "the use of which may cause the issuance of air contaminants . . ." and Regulation II provides the requirements for the application for a Permit to Construct. Rule 203 similarly requires a Permit to Operate. Rule 219, Equipment not Requiring a Written Permit Pursuant to Regulation II, identifies "equipment, processes, or operations that emit small amounts of contaminants that shall not require written permits . . .".

SCAQMD Rule 402, Nuisance states that a project shall not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."

SCAQMD Rule 403, Fugitive Dust requires actions to prevent, reduce, or mitigate fugitive particulate matter emissions. These actions include applying water or chemical stabilizers to disturbed soils; managing haul road dust by applying water; covering all haul vehicles before transporting materials; restricting vehicle speeds on unpaved roads to 15 miles per hour (mph); and sweeping loose dirt from paved site access roadways used by construction vehicles. In addition, Rule 403 requires that vegetative ground cover be established on disturbance areas that are inactive within 30 days after active operations have ceased. Alternatively, an application of dust suppressants can be applied in sufficient quantity and frequency to maintain a stable surface. Rule 403 also requires grading and excavation activities to cease when winds exceed 25 mph.

SCAQMD Rule 445 has been adopted to reduce the emissions of particulate matter from wood-burning devices and prohibits the installation of such devices in any new development.

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the VOC content in paints and paint solvents. Although this rule does not directly apply to the proposed Project, it does dictate the VOC content of paints available for use during building construction and ongoing maintenance.

SCAQMD Rule 1401 under Regulation XIV requires new source review of any new, relocated, or modified permit units that emit TACs. The rule establishes allowable risks for permit units requiring permits pursuant to Rules 201 and 203 discussed above.

SCAQMD Rule 1403, Asbestos Emissions from Demolition/Renovation Activities, specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos containing materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.

Southern California Association of Governments

SCAG is the regional planning agency for Orange, Los Angeles, Ventura, Riverside, San Bernardino, and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG serves as the federally designated MPO for the Southern California region. In 2024, SCAG's Regional

Council adopted the 2024 RTP/SCS. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS includes a strong commitment to reduce emissions from transportation sources in order to improve public health, to meet the NAAQS as set forth by the CAA.

Environmental Setting

Climate and Meteorology

The project site is located in the South Coast Air Basin (SoCAB), which includes all of Orange County and the urbanized portions of Los Angeles, Riverside, and San Bernardino counties.

The SoCAB includes all of Orange County and the urbanized portions of Los Angeles, Riverside, and San Bernardino Counties. The Basin is arid, with virtually no rainfall and abundant sunshine during the summer months. It has light winds and poor vertical mixing compared to the other large urban areas in the U.S. Meteorology (weather) and terrain can influence air quality. Certain weather parameters are highly correlated to air quality, including temperature, the amount of sunlight, and the type of winds at the surface and above the surface. Winds can transport ozone and ozone precursors from one region to another, contributing to air quality problems downwind of source regions. Furthermore, mountains can act as a barrier that prevents ozone from dispersing. The Los Angeles International Airport, California (045114) climatological station, maintained by the Western Regional Climate Center, is located near the Project site and is representative of meteorological conditions near the Project. Figure 2.2.6-1 shows a wind rose illustrating the predominant wind patterns near the Project. The climate of the Project area is generally Mediterranean in character, with cool winters (average 56.35 °Fahrenheit in January) and warm, dry summers (average 69 °Fahrenheit in July). Temperature inversions are common, affecting localized pollutant concentrations in the winter and enhancing ozone formation in the summer. Mountains located to the north and east of the Basin tend to trap pollutants in the region by limiting air flow.

Annual average rainfall is 12.02 inches (at Los Angeles International Airport), mainly falling during the winter months.

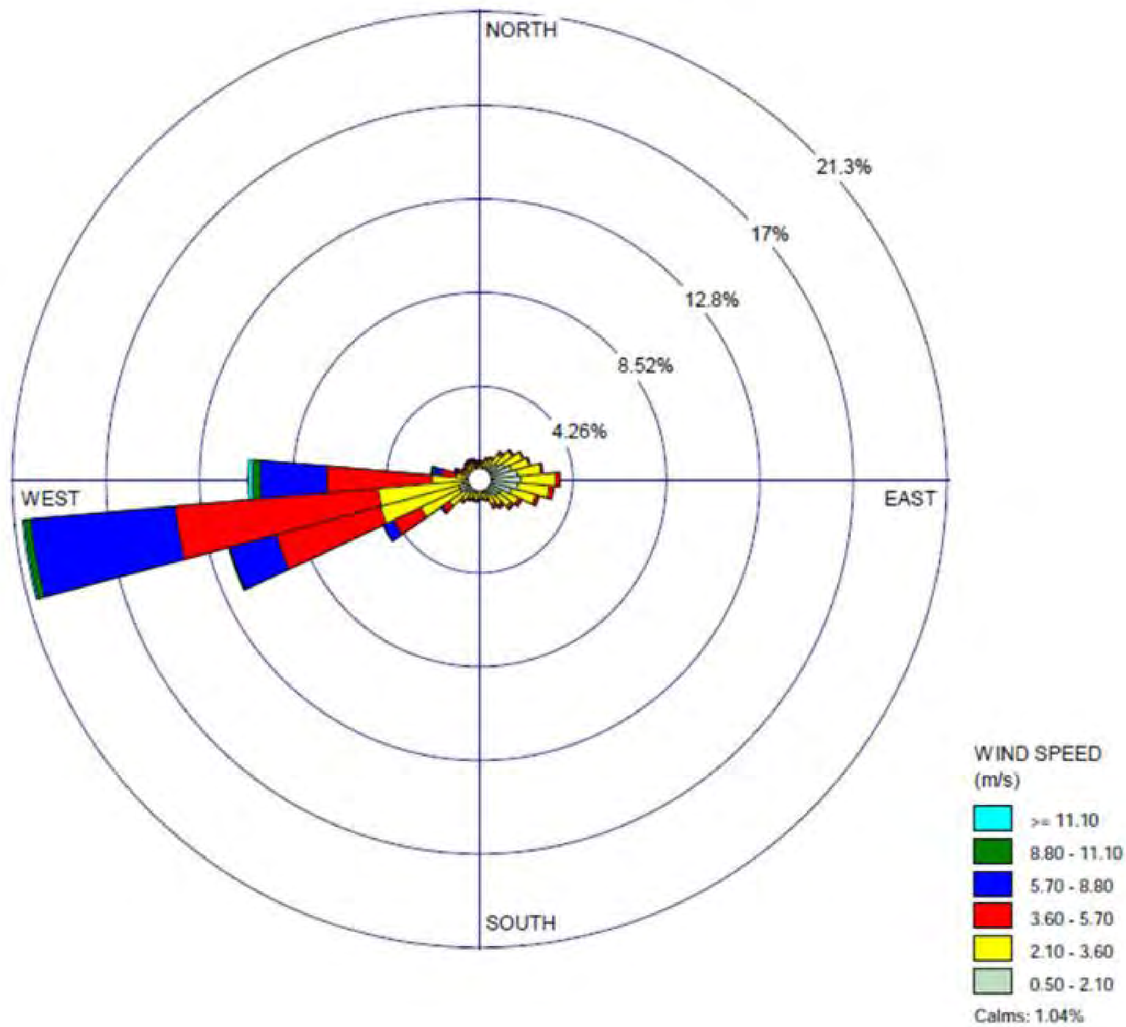


Figure 2.2.6-1: Predominant Wind Patterns Near the Project Site

Sensitive Air Quality Receptors

Sensitive receptors include, but are not limited to, children, the elderly, persons with preexisting respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. The South Coast Air Quality Management District (SCAQMD) defines structures that house these persons or places where they gather (i.e. residences, schools, playgrounds, childcare centers, convalescent centers, retirement homes, and athletic fields) as “sensitive receptors” (SCAQMD 1993a).

Existing sensitive receptors within or adjacent to the project site include sensitive bird species at the BWER as well as residential uses located on the eastern side of SR-1/Lincoln Boulevard from W. Jefferson Boulevard to Ballona Creek. Other non-residential sensitive receptors include the Culver Marina Little League baseball fields, located between Culver Boulevard and Ballona Creek east of the project site.

Criteria Pollutants

Air quality regulations were first promulgated with the Federal Clean Air Act (CAA) of 1970. Air quality is defined by ambient air concentrations of seven "criteria air pollutants", which are a group of common air pollutants identified by the USEPA to be of concern with respect to the health and welfare of the general public. Federal and State governments regulate criteria air pollutants by using ambient standards based on criteria regarding the health and/or environmental effects of each pollutant. The criteria pollutants are defined as NO_2, O_3, particulate matter (PM_{10} and $PM_{2.5}$), CO, SO_2, and lead. A description of each criteria air pollutant, including source types and health effects, is provided below.

Nitrogen Dioxide

Nitrogen gas, normally relatively inert (nonreactive), comprises about 80 percent of the air. At high temperatures (e.g., in a combustion process) and under certain other conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitrogen oxides (NOx). Nitric oxide (NO), NO_2, and nitrous oxide (N_2O) are important constituents of NOx. NO is converted to NO_2 in the atmosphere. Motor vehicle emissions are the main source of NOx in urban areas.

NO_2 is a red-brown pungent gas and is toxic to various animals and to humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membranes, and skin. In animals, long-term exposure to NOx increases susceptibility to respiratory infections, lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations of NO_2 can suffer lung irritation and, potentially, lung damage. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

While the NAAQS only address NO_2, NO, and NO_2 are both precursors in the formation of O_3 and $PM_{2.5}$, as discussed below. Because of this, and the fact that NO emissions largely convert to NO_2, NOx emissions are typically examined when assessing potential air quality impacts.

Ozone

O_3 is a secondary pollutant, meaning that it is not directly emitted. It is a gas that is formed when volatile organic compounds (VOCs) (also referred to as reactive organic gases) and NOx undergo photochemical reactions that occur only in the presence of sunlight. The primary source of VOC emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NOx forms as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O_3 to form[36]; as a result, ozone is known as a summertime air pollutant. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems, including the following:

- lung irritation that can cause inflammation much like a sunburn;
- wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities;
- permanent lung damage to those with repeated exposure to O_3 pollution; and
- aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis.

Ground-level O_3 can have detrimental effects on plants and ecosystems. These effects include the following:

- interfering with the ability of sensitive plants to produce and store food, making them more susceptible to certain diseases, insects, other pollutants, competition, and harsh weather;
- damaging the leaves of trees and other plants; and
- reducing crop yields and forest growth, potentially impacting species diversity in ecosystems.

Particulate Matter

Particulate matter includes both aerosols and solid particles of a wide range of size and composition. Of particular concern are those particles smaller than or equal to 10 microns in diameter (PM_{10}) and smaller than or equal to 2.5 microns in diameter ($PM_{2.5}$). Particulate matter

[36] Ground-level O_3 is not to be confused with atmospheric O_3 or the “ozone layer”, which occurs very high in the atmosphere and shields the planet from some ultraviolet rays.

size refers to the aerodynamic diameter of the particle. Smaller particles are of greater concern because they can penetrate deeper into the lungs than large particles.

PM_{10} is generally emitted directly as a result of mechanical processes that crush or grind larger particles or from the resuspension of dust, most typically through construction activities and vehicular travel. PM_{10} generally settles out of the atmosphere rapidly and is not readily transported over large distances.

$PM_{2.5}$ is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NOx, sulfur oxides (SOx), and VOCs. $PM_{2.5}$ can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne particulate matter are on the respiratory system. Short-term exposure to high $PM_{2.5}$ and PM_{10} levels are associated with premature mortality and increased hospital admissions and emergency room visits; a decline in respiratory function is also associated with short-term exposure to high PM_{10} levels. Long-term exposure to high $PM_{2.5}$ levels is associated with premature mortality and development of chronic respiratory disease. According to the USEPA, some people are much more sensitive than others to breathing PM_{10} and $PM_{2.5}$. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

Particulate matter tends to occur primarily in the form of fugitive dust. This dust appears to be generated by both local sources and by region-wide dust during moderate- to high-wind episodes. These regional episodes tend to be multidistrict and sometimes interstate in scope. The principal sources of dust in urban areas are from grading, construction, disturbed areas of soil, and dust entrained by vehicles on roadways.

Carbon Monoxide

CO is a colorless and odorless gas which, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease, and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high CO concentrations are typically found near crowded intersections; along heavily used roadways carrying slow-moving traffic; and at or near ground level. Even under the most severe meteorological and traffic conditions, concentrations of CO are limited to locations within a relatively short distance (i.e., up to 600 feet or 185 meters) of heavily traveled roadways. Overall, CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973. CO levels in the SoCAB are in compliance with the State and federal one-hour and eight-hour standards.

Sulfur Dioxide

SO_x is a class of compounds of which SO_2 and sulfur trioxide (SO_3) are of greatest importance. Ninety-five percent of pollution-related SO_x emissions are in the form of SO_2. SO_x emissions are typically examined when assessing potential air quality impacts of SO_2. The primary contributor of SO_x emissions is fossil fuel combustion for generating electric power. Industrial processes, such as nonferrous metal smelting, also contribute to SO_x emissions. SO_x is also formed during combustion of motor fuels; however, most of the sulfur has been removed from fuels, greatly reducing SO_x emissions from vehicles.

SO_2 combines easily with water vapor, forming aerosols of sulfurous acid (H_2SO_3), a colorless, mildly corrosive liquid. This liquid may then combine with oxygen in the air, forming the even more irritating and corrosive sulfuric acid (H_2SO_4). Peak levels of SO_2 in the air can cause temporary breathing difficulty for people with asthma who are active outdoors. Longer-term exposures to high levels of SO_2 gas and particles cause respiratory illness and aggravate existing heart disease. SO_2 reacts with other chemicals in the air to form tiny sulfate particles that are measured as $PM_{2.5}$.

Lead

Lead is a stable compound, which persists and accumulates both in the environment and in animals. In humans, it affects the body's blood-forming (or hematopoietic), nervous, and renal systems. In addition, lead has been shown to affect the normal functions of the reproductive, endocrine, hepatic, cardiovascular, immunological, and gastrointestinal systems, although there is significant individual variability in response to lead exposure. Since 1975, lead emissions have been in decline due, in part, to the introduction of catalyst-equipped vehicles and the decline in the production of leaded gasoline. In general, an analysis of lead is limited to projects that emit significant quantities of the pollutant (i.e., lead smelters) and are not applied to transportation sources of emissions.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including motor vehicles, gasoline stations, dry cleaners, industrial operations, painting operations, and research and teaching facilities.

TACs are different than the "criteria" pollutants previously discussed in that ambient air quality standards have not been established for them. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

Diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (diesel PM). In 1998, California identified diesel PM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children (whose lungs are still developing) and the elderly (who may have other serious health problems). Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Diesel engines also contribute to California's $PM_{2.5}$ air quality problems.

Carcinogenic risks (i.e., cancer risks) are estimated as the incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a probability (e.g., 10 in 1 million). A risk level of 1 in 1 million implies a likelihood that up to 1 person out of 1 million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the specific concentration over 70 years (an assumed lifetime). This would be in addition to those cancer cases that would normally occur in an unexposed population of one million people (USEPA 2009). The Hazard Index (HI) expresses the potential for chemicals to result in non-cancer-related health impacts. HIs are expressed using decimal notation (e.g., 0.001). A calculated HI exposure less than 1.0 will likely not result in adverse non-cancer-related health effects over a lifetime of exposure. However, an HI greater than 1.0 does not necessarily mean that adverse effects will occur (USEPA 2009). Pursuant to SCAQMD Rule 1401(d)(1), the risks associated with potential exposure to emissions from a source equipped with the best available control technology for toxics (T-BACT) and from all emissions sources included within a "project" are acceptable if the incremental cancer risk (1) is less than 10 in 1 million and (2) is less than 1 in 1 million for sources not equipped with T-BACT.

The Multiple Air Toxics Exposure Study V (MATES V) is a monitoring and evaluation study conducted in the SoCAB. According to the MATES V Study, the carcinogenic risk from air toxics in the Basin has improved from the past. While toxic air pollutants decreased by more than 54 percent from 2012 to 2018, the cancer risk for residents of the SoCAB was 455 in one million in the year 2018 (SCAQMD 2021a). The results of this study indicate that diesel exhaust is the primary contributor to air toxics risk within the SoCAB.

Ambient Air Quality

The SCAQMD measures criteria air pollutant concentrations at several monitoring stations in Los Angeles County. The project site is located within Source Receptor Area (SRA) 3, Southwest Coastal LA County. Equipment within this SRA measures O3, CO, NO2, SO_2, and PM_{10} levels. Data from 2019 to 2021 from these stations are summarized in Table 2.2.6-2. The data shows no recent violations of the federal and State O3, PM_{10}, and $PM_{2.5}$ standards.

Table 2.2.6-2 – Air Quality Levels Measured at Southwest Los Angeles County and Northwest Coastal LA County (SRA 3)

Pollutant	California Standard	National Standard	Year	Max. Level[a]	State Standard Days Exceeded[b]	National Standard Days Exceeded[b, c]
O_3 (1 hour)	0.09 ppm	None	2019	.082	0	N/A
O_3 (1 hour)	0.09 ppm	None	2020	.117	1	N/A
O_3 (1 hour)	0.09 ppm	None	2021	.059	0	N/A
O_3 (1 hour)	0.09 ppm	None	2022*	.081	0	0
O_3 (8 hour)	0.070 ppm	0.070 ppm	2019	.067	0	0
O_3 (8 hour)	0.070 ppm	0.070 ppm	2019	.074	2	2
O_3 (8 hour)	0.070 ppm	0.070 ppm	2021	.049	0	0
O_3 (8 hour)	0.070 ppm	0.070 ppm	2022*	.070	0	0
PM10 (24 hour)	50 µg/m^3	150 µg/m^3	2019	62	2	0
PM10 (24 hour)	50 µg/m^3	150 µg/m^3	2020	43	0	0
PM10 (24 hour)	50 µg/m^3	150 µg/m^3	2021	33	0	0
PM10 (24 hour)	50 µg/m^3	150 µg/m^3	2022*	N/A	N/A	N/A

Pollutant	California Standard	National Standard	Year	Max. Level[a]	State Standard Days Exceeded[b]	National Standard Days Exceeded[b, c]
PM10 (AAM)	20 µg/m^3	None	2019	19.2	0	N/A
PM10 (AAM)	20 µg/m^3	None	2020	22.5	N/A	N/A
PM10 (AAM)	20 µg/m^3	None	2021	17.7	0	N/A
PM10 (AAM)	20 µg/m^3	None	2022*	N/A	N/A	N/A
NO_2 (1 hour)	0.18 ppm	0.100 ppm	2019	.057	0	0
NO_2 (1 hour)	0.18 ppm	0.100 ppm	2020	.060	0	0
NO_2 (1 hour)	0.18 ppm	0.100 ppm	2021	.063	0	0
NO_2 (1 hour)	0.18 ppm	0.100 ppm	2022*	.051	0	0
NO_2 (AAM)	0.030 ppm	0.053 ppm	2019	.0095	0	0
NO_2 (AAM)	0.030 ppm	0.053 ppm	2020	.0095	0	0
NO_2 (AAM)	0.030 ppm	0.053 ppm	2021	.0072	0	0
NO_2 (AAM)	0.030 ppm	0.053 ppm	2022*	.0114	0	0
CO (1 hour)	20 ppm	35 ppm	2019	1.8	0	0
CO (1 hour)	20 ppm	35 ppm	2020	1.6	0	0
CO (1 hour)	20 ppm	35 ppm	2021	1.7	0	0
CO (1 hour)	20 ppm	35 ppm	2022*	N/A	0	0
CO (8 hour)	9 ppm	9 ppm	2019	1.3	0	0
CO (8 hour)	9 ppm	9 ppm	2020	1.3	0	0
CO (8 hour)	9 ppm	9 ppm	2021	1.3	0	0
CO (8 hour)	9 ppm	9 ppm	2022*	N/A	0	0
SO_2 (1 Hour)	0.075 ppm	0.25 ppm	2019	8.2	N/A	N/A
SO_2 (1 Hour)	0.075 ppm	0.25 ppm	2020	6.0	N/A	N/A

Pollutant	California Standard	National Standard	Year	Max. Level[a]	State Standard Days Exceeded[b]	National Standard Days Exceeded[b, c]
SO_2 (1 Hour)	0.075 ppm	0.25 ppm	2021	7.7	N/A	N/A
SO_2 (1 Hour)	0.075 ppm	0.25 ppm	2022*	N/A	N/A	N/A
PM2.5 (AAM)	12 µg/m^3	15 µg/m^3	2019	N/A	N/A	N/A
PM2.5 (AAM)	12 µg/m^3	15 µg/m^3	2020	N/A	N/A	N/A
PM2.5 (AAM)	12 µg/m^3	15 µg/m^3	2021	N/A	N/A	N/A
PM2.5 (AAM)	12 µg/m^3	15 µg/m^3	2022*	N/A	N/A	N/A

NA: Not Available

*: 2022 data for the Southwest Coastal LA County Monitoring Station #3 (1630 North Main Street, Los Angeles) was not available as of December 12, 2023 since the station has closed. Data from the Northwest Coastal LA County Station #2 located at the West LA VA hospital (Site Address Wilshire Bl & Sawtelle, Los Angeles CA 90025, Latitude Longitude 34°03'03.9"N 118°27'23.0"W [CARB 2023]) was used for 2022 since the project site is located within the similar distances from both these air monitoring stations and similar conditions (west side of the County, west of I-405).

Source: SCAQMD 2022a.

Attainment Status

Based on monitored air pollutant concentrations, the USEPA and CARB designate an area's status in attaining the NAAQS and the CAAQS, respectively, for selected criteria pollutants. These attainment designations for the SoCAB are shown in Table 2.2.6-3. As shown, the SoCAB is a nonattainment area for PM_{10} (State), $PM_{2.5}$ (State and federal), and O_3 (State and federal).

Table 2.2.6-3 – Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 (1 hour)	Nonattainment	No Standards
O_3 (8 hour)	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment*
All others	Attainment/Unclassified	No Standards

O_3: ozone; PM_{10}: particulate matter 10 microns or less in diameter; $PM_{2.5}$: particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; NO_2: nitrogen dioxide; SO_2: sulfur dioxide.

* The Los Angeles County portion of the SoCAB is designated nonattainment for lead; the remainder of the SoCAB is designated attainment.

Source: SCAQMD 2017a; USEPA 2022a.

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Alternative 1 would not require any construction activities; therefore, Alternative 1 would have no short-term effects related to air quality.

Operational Effects

Alternative 1 would result in greater operational air quality emissions than Alternative 2. Under this Alternative, air pollutant emissions generated by local traffic would be greater than those generated under Alternative 2 since no VMT reduction measures would occur under this Alternative.

Cumulative Effects

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to air quality. Under this Alternative, emissions resulting from traffic would remain as projected since no VMT reduction measures are proposed under this Alternative. In addition, under this Alternative, air pollutant emissions generated by local traffic would be greater than those generated under Alternative 2.

Alternative 2 – Base Alternative

Construction Effects

Site preparation and roadway construction will involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include CO, NO_X, VOCs, directly emitted PM_{10} and PM2.5, and toxic air contaminants (TACs) such as diesel exhaust particulate matter. Construction activities are expected to temporarily increase traffic congestion in the area at certain stages of Project construction, resulting in temporary increases in emissions from traffic during these delays during construction. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Under the transportation conformity regulations (40 CFR 93.123(c)(5)), construction-related activities that cause temporary increases in emissions are not required to conduct a hot-spot analysis. These temporary increases in emissions are those that occur only during the construction phase and last five years or less at any individual site. These temporary increases in emissions typically fall into two main categories:

- *Fugitive Dust*: A major emission from construction due to ground disturbance. All air districts and the California Health and Safety Code (Sections 41700-41701) prohibit "visible emissions" exceeding three minutes in one hour – this applies not only to dust but also to engine exhaust. In general, this is interpreted as visible emissions crossing the right-of-way line. SCAQMD Rule 403 includes the prohibition against visible dust emissions leaving a project's site boundaries as well as other prohibitions against fugitive dust generation.

  Sources of fugitive dust for Alternative 2 might include temporarily disturbed soils and trucks carrying uncovered loads of soil. Unless properly controlled, vehicles leaving the site may deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

- *Construction equipment emissions:* Diesel exhaust particulate matter is a California-identified toxic air contaminant and localized issues may exist if diesel-powered construction equipment is operated near sensitive receptors.

While construction emissions typically need not be considered in conformity analyses where construction will last for five years or less, they may need to be considered for a wider variety of projects and shorter construction periods for both NEPA and CEQA. The construction period for Alternative 2 spans two years. For purposes of conducting a construction emissions analysis for CEQA, construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.21. The linear land use type (infrastructure) was selected to quantify Project construction emissions. Default data and quantification methodologies for construction emissions of linear projects are integrated from the Sacramento Metropolitan Air

Quality Management District's Road Construction Emissions Model (RCEM), version 9.0.0 (last updated in 2018).

Regional Emissions

Construction emissions were estimated for Alternative 2 using detailed equipment inventories provided within the Road Construction Emissions Model (which was then utilized by CalEEMod) for bridge construction and roadway widening projects. Project construction scheduling information provided by the Project engineers (Psomas) combined with emissions factors from the EMFAC and OFFROAD models. Construction-related emissions for Alternative 2 are presented in Table 2.2.6-4. The results of the construction emission calculations are included in Appendix C of the Air Quality Report. The emissions presented are based on the best information available at the time of calculations. The emissions represent the peak daily construction emissions that would be generated by Alternative 2.

Table 2.2.6-4 – Construction Emissions for Roadways for Alternative 2

	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO (lbs/day)	NO_x (lbs/day)	ROG (lbs/day)	CO_2e (tons/phase)
Land Clearing/ Grubbing	2	1	11	10	1	130
Roadway Excavation	9	4	100	78	9	3,496
Drainage/Utilities/Sub-Grade	5	2	60	46	6	1,848
Paving	1	<1	22	12	1	188
Maximum Daily	9	4	100	78	9	N/A

Source: California Emissions Estimator Model (CalEEMod) version 2022.1.1.21.

Localized Construction Emissions

The nearest sensitive receptors to the Project Site are the existing residential uses located along SR-1/Lincoln Boulevard between the Ballona Creek and Jefferson Boulevard. For Alternative 2, the highest maximum localized daily construction emissions would occur during the grading phase. The maximum localized daily construction emission for Alternative 2 are provided in Table 2.2.6-5.

Table 2.2.6-5 – Maximum Localized Daily Construction Emissions for Alternative 2 (lbs/day)

Year	NOx	CO	PM10	PM2.5
Maximum Daily Emissions (Grading Phase)	75	94	7	3

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide.

Sources: Emissions calculations can be found in Appendix Q, Air Quality Appendices.

To minimize localized air quality affects, **MM AQ-1** through **MM AQ-19** would be adhered to, which require that best practices for fugitive dust and construction activities be implemented during construction.

Construction Conformity

Construction activities would not last for more than five years at one general location, so construction-related emissions do not need to be included in the regional and project-level conformity analysis (40 CFR 93.123(c)(5).

<u>Operational Effects:</u>

Conformity Status:

Under the 1990 Clean Air Act Amendments, the USDOT cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels—first, at the regional level and second, at the project level. The Project must conform at both levels to be approved. Regional level conformity in California is concerned with how well the region is meeting the standards set for CO, NO2, O3, and PM. California is in attainment for the other criteria pollutants. At the regional level, RTP are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the RTP, an air quality model is run to determine whether the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization, such as SCAG and the appropriate federal agencies, such as the FHWA, make the determination that the RTP is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Regional Conformity:

The Project is listed in the Final Adopted 2023 Federal Transportation Improvement Program, which was subject to a conformity determination by FHWA and FTA. Conformity status information is summarized in Table 2.2.6-6.

Table 2.2.6-6 – Status of Plans Related to Regional Conformity.

Metropolitan Planning Organization (MPO)	Plan	Date of Adoption by MPO	Date of Approval by FHWA
Southern California Association of Governments	2023 Transportation Improvement Program	October 6, 2022	December 16, 2022
Southern California Association of Governments	2024 Regional Transportation Plan/Sustainable Communities Strategy	April 4, 2024	April 27, 2024

The proposed Project is listed in the 2024 financially constrained Regional Transportation Plan which was found to conform by SCAG on April 4, 2024, and FHWA and FTA made a regional conformity determination finding on April 27, 2024. The Project is also included in SCAG's financially constrained 2023 Transportation Improvement Program, page 39. The SCAG 2023 Transportation Improvement Program was determined to conform by FHWA and FTA on December 16, 2022. The design concept and scope of the proposed Project is consistent with the project description in the 2024 RTP/SCS, 2023 Transportation Improvement Program, and the "open to traffic" assumptions of SCAG's regional emissions analysis.

Project-Level Conformity:

The Project Site is located in a nonattainment area for O3, PM10, and PM2.5, and a maintenance area for CO, thus a Project-level hot-spot analysis for carbon monoxide analysis is required under 40 CFR 93.109. These analyses were prepared as part of this AQR and are presented in Section 4.0.

On August 27, 2019, the Project was considered at the Transportation Conformity Working Group (TCWG). At that meeting, the TCWG concurred that the Project is not a project of air quality concern (POAQC). In March 2024, an updated PM Hot Spot Form along with updated traffic data for the Project was provided to TCWG. During their March 26, 2024 meeting, the TCWG reaffirmed that the Project is not a POAQC. Because the Project is classified as not being a POAQC, in accordance with the March 2006 EPA/FHWA guidance document, a quantitative PM hot-spot analysis is not required.

Comparative Operational Emissions Analysis:

Operational emissions consider long-term changes in emissions due to Alternative 2 (excluding the construction phase). The operational emissions analysis compares forecasted emissions for the existing/baseline condition, Alternative 1, and Alternative 2. As shown in Table 2.2.6-7, emissions associated with Alternative 2 would result in a reduction in criteria pollutant emissions as compared to the Alternative 1. The reduction in emissions is associated with the reduction in VMT and increase in the average vehicle speed associated that would result from Alternative 2. As detailed in the TAR (Fehr & Peers 2023a), there would be a decrease in VMT by approximately 1.7% compared to No-Build conditions in 2030 and 4.7% in 2050 with Alternative 2. This reduction in VMT is due to the elimination of the existing southbound bottleneck along SR-1/Lincoln Boulevard, which in the baseline condition causes motorists to use alternate routes that requires travelling a greater distance but are more time efficient.

Table 2.2.6-7 – Summary of Comparative Emissions Analysis

Scenario/ Analysis Year	CO (lbs/day)	NO_x (surrogate for NO_2) (lbs/day)	ROG (lbs/day)	PM10[1] (lbs/day)	PM2.5[1] (lbs/day)
Baseline (Existing Conditions) 2019	2,066	257	52	426	111
Alternative 1 (No Build Alternative) Opening Year (2030)	1,204	96	23	447	115
Alternative 2 (Build Alternative) Opening Year (2030)	1,126	87	20	439	113
Difference Between Opening Year (2030) Alternative 2 and Alternative 1	-78.0	-9.0	-3.0	-8	-2
Alternative 1 Design Year (2050)	903	57	12	494	126
Alternative 2 Design Year (2050)	860	54	12	470	120
Difference Between Design Year (2050) Alternative 2 and Alternative 1	-43	-3	0	-24	-6

Source: EMFAC2021

Note:

1 PM10 and PM2.5 emissions include emissions associated with vehicle exhaust, tirewear, brakewear, and road dust.

CO Hotspot Analysis

The CO Protocol was developed for project-level conformity (hot-spot) analysis and was approved for use by the USEPA in 1997. It provides qualitative and quantitative screening procedures, as well as quantitative (modeling) analysis methods to assess project-level CO impacts. The qualitative screening step is designed to avoid the use of detailed modeling for projects that clearly cannot cause a violation, or worsen an existing violation, of the CO standards. Although the protocol was designed to address federal standards, it has been used by the SCAQMD in CEQA analysis guidance documents and should also be valid for California standards because the key criterion (8-hour concentration) is the same: 9 ppm for the federal and state standard.

Section 4.7.2 of the CO Protocol provides criteria for determining whether a Project is likely to result in higher CO concentrations than those existing within the region at the time of attainment demonstration. Projects potentially creating CO concentrations higher than those existing within the region at the time of attainment demonstration should proceed to Section 4.7.3; other projects should be deemed satisfactory, and no further analysis is needed.

The intersection selected for analysis (Wilshire Boulevard and Veteran Avenue) in the attainment demonstration is among the worst within the air basin and which is described in the attainment demonstration as "The most congested intersection in Los Angeles County. The average daily traffic volume is about 100,000 vehicles/day." As such, the attainment demonstration evaluated an intersection in the South Coast Air Basin with the worst LOS and measured CO concentrations. Alternative 2 would only worsen LOS at one intersection from LOS E to F, the intersection of Lincoln Boulevard and Jefferson Boulevard. The average peak hour delay would for this intersection worsen to 86.3 seconds due to Alternative 2 in the year 2050. This intersection is marginally above the criteria for LOS F of 80 seconds per vehicle. As such, the LOS at the intersection analyzed for the attainment demonstration is worse than that of Alternative 2.

Alternative 2 would involve only one intersection with a worsening of LOS to LOS E or F, which is the intersection of Lincoln Boulevard and Jefferson Boulevard. The average peak hour delay for this intersection would worsen to 86.3 seconds due to Alternative 2 in the year 2050. This intersection is marginally above the criteria for LOS F of 80 seconds per vehicle. Intersections analyzed in the attainment demonstration had substantially worse LOS and higher volumes of vehicle traffic as well as higher ambient levels of CO. CO concentrations for the locations under study would be substantially less than those that occurred at the location where attainment has been demonstrated (Wilshire Boulevard and Veteran Avenue). Currently monitored CO concentrations are between 1.6-1.8 ppm for 1-hour concentrations and 1.3 ppm 8-hour concentrations. 1-hour concentrations would have to increase more than tenfold to exceed the 20 ppm 1-hour CAAQS and sevenfold for the 8-hour 9 ppm CAAQS. Cessation of CO monitoring is occurring at increasing number of monitoring stations. The attainment demonstration documents a continued decrease in CO concentrations over time. As such, current CO concentrations in the project site are less than those during the attainment demonstration. Two decades have passed since the attainment demonstration and CO concentrations continue to decline due to CARB's regulatory activities related to phase-in of zero emission vehicles pursuant to Advanced Clean Cars II legislation. In addition, the proliferation of EVs would continue to result in reductions of CO concentrations at the intersection of Lincoln Boulevard and Jefferson Boulevard. As such, future CO concentrations are expected to be less than those during the attainment demonstration. Since all of the above conditions indicate that Alternative 2 would not result in higher CO concentrations than those existing within the region at the time of attainment demonstration and attainment of the ambient air quality standards were demonstrated in 2005, there is no reason to expect higher concentrations at the location under study.

Mobile Source Air Toxics

The U.S. EPA has identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA). According to the FHWA's Interim Guidance, Alternative 2 is classified as a category 1 project (Project with No Meaningful Potential MSAT Effects, or Exempt Projects). This project is expected to meet this category for the following reasons:

- Alternative 2 would improve operations of the roadway without adding substantial new capacity and without creating a facility that is likely to meaningfully increase emissions or exposure to MSAT emissions of sensitive populations or land uses.
- MSAT are expected to decline overall due to the effect of new engine and fuel standards.
- Overall, Alternative 2 would result in reduced VMT. The decrease in VMT would result from the elimination of the existing southbound bottleneck on the bridge, which would result in vehicles using alternate routes that, while time efficient, require traveling a greater distance. The 1.5-mile radius used for the Project's VMT analysis includes alternative routes across Ballona Creek, including SR-90 and Centinela Avenue, both east of the Project Site. VMT reductions as a result of Alternative 2 can therefore be attributed to the addition of southbound capacity, providing a more direct route for many trips. This would result in higher MSAT emissions for Alternative 2 along SR-1/Lincoln Boulevard when compared to existing conditions, along with a a corresponding decrease in MSAT emissions along parallel routes such as SR-90 and Centinela Avenue. Given the overall reduction in VMT that would result from Alternative 2, overall MSAT emissions would be reduced with Alternative 2.

Climate Change

Neither the U.S. EPA nor the FHWA have issued explicit guidance or methods to conduct project-level greenhouse gas analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the CEQA chapter of this Draft EIR/EA (Chapter 3). The CEQA analysis may be used to inform the NEPA determination for this Project.

Cumulative Effects

Construction and operation of cumulative projects would further degrade the local air quality, as well as the air quality of the Basin. Air quality would be temporarily degraded during construction. The project site is located within an area that is generally either fully developed or preserved open space. As such, no major construction activities related to cumulative projects are anticipated to occur in the immediate vicinity concurrently with the construction of Alternative 2, with one major exception. Adjacent to the project site within the BWER, CDFW, in partnership with other agencies, is proposing an ecological restoration project known as the Ballona Wetlands Restoration Project. The Draft EIR for the Ballona Wetlands Restoration Project found that air quality effects would be below the SCAQMD significance thresholds from construction and operations phase emissions of the restoration project. Recent development trends near the project site have primarily involved the upgrade and rehabilitation of existing infrastructure, development of infill sites on vacant parcels, and the redevelopment of several sites for residential and mixed-use developments at greater densities than their prior use. There are also several modernization projects underway and in the planning phases at Los Angeles International Airport (LAX) approximately 1.6-miles south of the project site, as well as office developments in Playa Vista that are under construction or have recently opened.

Once Alternative 2 is built, the greatest cumulative impact on the quality of regional air would be the incremental addition of pollutants from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. It should be noted that Alternative 2 is a multimodal transportation improvement that removes a traffic bottleneck and reduces overall VMT, and not a direct trip generator. With respect to emissions that may contribute to exceeding state and federal standards, a CO and particulate matter screening analysis was performed. The results of this analysis illustrate that localized levels would not exceed published air quality standards, and therefore represent a minimal cumulative effect. Implementation of Alternative 2 would improve traffic flow and congestion at the improved Project roadway segments. The reduction in traffic congestion associated with the development of Alternative 2 would result in a reduction in air pollution as compared to Alternative 1. As such, Alternative 2would not contribute substantially to cumulative impacts related to construction and operations phase emissions.

Alternative 2A - Design Variation A - Retaining Wall Along the West Side of Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would include construction of a retaining wall along the west side of Lincoln Boulevard north of the Culver Boulevard Bridge. Overall, no additional air emissions would result from these activities when compared to air emissions generated for Alternative 2, which are shown above in Table 2.2.6-4, since the installation of the aforementioned retaining wall would not substantially change the amount of construction equipment used, the duration of construction activities, the number of construction workers, or the number of haul trucks required.

Operational Effects

Alternative 2A would result in emissions from traffic that would remain similar to those generated from Alternative 2.

Cumulative Effects

Emissions resulting from the implementation of Alternative 2A would remain similar to those generated from Alternative 2 since Alternative 2A would include the same features as those proposed under Alternative 2 with the addition of the retaining wall.

Alternative 2B – Design Variation B – Cantilevered Widening of the Roadway Over Fiji Ditch to Avoid Direct Impacts to a Wetland Feature

Construction Effects

Alternative 2B would include cantilevered sidewalks instead of traditional sidewalks. Overall, no additional air quality emissions would result from these activities when compared to air emissions anticipated for Alternative 2, which are shown above in Table 4-1, since the installation of the aforementioned sidewalks would not substantially change the amount of construction equipment used, the duration of construction activities, the number of construction workers, or the number of haul trucks required.

Operational Effects

Alternative 2B would include cantilevered sidewalks instead of traditional sidewalks. Therefore, Alternative 2B would result in the same air quality emissions as those that would be generated from Alternative 2.

Cumulative Effects

Emissions resulting from the implementation of Alternative 2B would remain similar to those emissions anticipated for Alternative 2 since Alternative 2B would include the same features as those proposed under Alternative 2 with the addition of the cantilevered sidewalks.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would include a wider Culver Boulevard Bridge over Lincoln Boulevard. Overall, a limited amount of additional air quality emissions would result from the construction of a bridge that is 12-feet wider when compared to air quality emissions that would result from construction of Alternative 2.

Construction emissions were estimated for Alternative 2C. The number and types of equipment used for Alternative 2C remained unchanged as compared to Alternative 2. Nevertheless, the paving phase was increased in length by 12 days (proportionate to the increase in size between Alternative 2C and Alternative 2). Construction-related emissions for Alternative 2C are presented in Table 2.2.6-8. The emissions presented are based on the best information available at the time of calculations. In addition, the emissions represent the peak daily construction emissions that would be generated by construction of Alternative 2C. The model calculates the worst-case scenario for daily construction emissions. Daily construction emissions remain unchanged between Alternative 2C and Alternative 2 because the number and types of construction equipment used would be the same. An increase in the amount of GHG emissions for the additional pavement required to accommodate Alternative 2C and associated increase in length for the paving phase is reflected in the paving phase for Alternative 2C.

Table 2.2.6-8 – Construction Emissions for Roadways (Alternative 2C)

-	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO (lbs/day)	NO_x (lbs/day)	ROG (lbs/day)	CO_2e (tons/phase)
Land Clearing/ Grubbing	2	1	11	10	1	130
Roadway Excavation	9	4	100	78	9	3,496
Drainage/Utilities/Sub-Grade	5	2	60	46	6	1,848
Paving	1	1	22	12	1	206
Maximum Daily	9	4	100	78	9	NA

Source: California Emissions Estimator Model (CalEEMod) version 2022.1.1.21.

Note: Daily emissions for the criteria pollutants are similar to daily emissions for Alternative 1 since the CalEEMod calculates maximum daily emissions and emissions for criteria pollutants are typically expressed in pounds per day. Emissions for criteria pollutants remain unchanged since the number and types of construction equipment would remain the same for Alternative 2C. Nevertheless, the increase in duration for Alternative 2C's construction phase would result in increased GHG emissions, which are typically expressed in tons per year or tons per phase.

Operational Effects

Alternative 2C would construct a wider Culver Boulevard Bridge to allow for bicycle and pedestrian access. No change in vehicular throughput would result from the wider Culver Boulevard Bridge. Therefore, Alternative 2C would result in the same air quality emissions as those that would be generated from Alternative 2.

Cumulative Effects

Emissions resulting from the implementation of Alternative 2C would remain similar to those emissions anticipated for Alternative 2 since Alternative 2C would include the same features as those proposed under Alternative 2 except under Alternative 2C, the new Culver Boulevard bridge would be approximately 12-feet-wider to accommodate a two-lane bike path and a new bridge spanning Lincoln Boulevard just north of Culver Boulevard Bridge.

Alternative 2D – Design Variation D – Provide Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of Lincoln Boulevard

Construction Effects

Alternative 2D would include construction of an additional pedestrian and bicycle ramp. Overall, a limited amount of additional air quality emissions would result from the construction of an additional bicycle/pedestrian ramp when compared to air quality emissions that would result from construction of Alternative 2.

Construction emissions were estimated for Alternative 2D. The number and type of equipment used for Alternative 2D remained unchanged when compared to Alternative 2. Nevertheless, the grading and paving phases were increased in length by 3 days and 1 day, respectively (proportionate to the increase in size between Alternative 2D and Alternative 2). Construction-related emissions for Alternative 2D are presented in Table 2.2.6-9. The emissions presented are based on the best information available at the time of calculations. In addition, the emissions represent the peak daily construction emissions that would be generated by construction of Alternative 2D. The model calculates the worst-case scenario for daily construction emissions. Daily construction emissions remain unchanged between Alternative 2D and Alternative 2 because the number and types of construction equipment used would be the same. An increase in the amount of GHG emissions for the additional pavement and grading/excavation required to implement Alternative 2D and associated increase in length for the paving and grading/excavation phases is reflected in the paving, drainage/utilities/sub-grade, and grading/excavation phases for Alternative 2D, respectively.

Table 2.2.6-9. Construction Emissions for Roadways (Alternative 2D).

	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO (lbs/day)	NO_x (lbs/day)	ROG (lbs/day)	CO_2e (tons/phase)
Land Clearing/ Grubbing	2	1	11	10	1	130
Roadway Excavation	9	4	100	78	9	3,517
Drainage/Utilities/Sub-Grade	5	2	60	46	6	1,858
Paving	1	<1	22	12	1	189
Maximum Daily	9	4	100	78	9	NA

Source: California Emissions Estimator Model (CalEEMod) version 2022.1.1.21.

*Note: Daily emissions for the criteria pollutants are similar to daily emissions for Alternative 2 since the CalEEMod calculates maximum daily emissions and emissions for criteria pollutants are typically expressed in pounds per day. Emissions for criteria pollutants remain unchanged since the number and types of construction equipment would remain the same for Alternative 2D. Nevertheless, the increase in duration for Alternative 2D’s construction phase would result in increased GHG emissions, which are typically expressed in tons per year or tons per phase.

<u>Operational Effects</u>

Alternative 2D would result in a new bicycle/pedestrian ramp in addition to the improvements identified for Alternative 2. Therefore, the operational effects of Alternative 2D related to air emissions would be the same as described for Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2D, cumulative effects related to air emissions would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

Caltrans standard specifications and special provisions will be included in the contractor’s contract language, and will be implemented during Project design and construction, including but not limited to those listed below. These standard specifications and special provisions are considered components of Alternative 2 and standard Project features.

- Division II – General Construction – 10 – General
- Division II – General Construction – 13 – Water Pollution Control
- Division II – General Construction – 14 – Environmental Stewardship

- Division III – Earthwork and Landscape – 18 – Dust Palliatives
- Division III – Earthwork and Landscape – 19 – Earthwork
- Division III – Earthwork and Landscape – 21 – Erosion Control

Additional avoidance, minimization, and mitigation measures which go above and beyond the standard specifications and special provisions are described below.

- **MM AQ-1**: Water or a dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion at the right-of-way line as per SCAQMD Rule 403.
- **MM AQ-2**: Soil binder will be spread on any unpaved roads used for construction purposes, and on all construction parking areas.
- **MM AQ-3**: Trucks will be washed as they leave the project site as necessary to control fugitive dust emissions.
- **MM AQ-4**: Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by CA Code of Regulations Title 17, Section 93114.
- **MM AQ-5**: As part of review of design plans and specifications, Caltrans Headquarters would approve a nonstandard special provision (NSSP) 14-9.05 to mandate contractors' compliance with the applicable air district rules including measures related to dust control.
- **MM AQ-6**: Equipment and materials storage sites will be located as far away from residential uses and the Ballona Creek Bike Path as practicable. Caltrans will ensure that the construction contractor adhere to the temporary work areas analyzed in the Project's Environmental Impact Report/Environmental Assessment (EIR/EA) and its supporting technical studies.
- **MM AQ-7**: Construction areas will be kept clean and orderly.
- **MM AQ-8**: ESA (Environmentally Sensitive Area)-like areas or their equivalent will be established within 500 feet of sensitive air receptors near the Project. Within these areas, construction activities involving extended idling and maintenance of diesel equipment and vehicles will be prohibited to the extent feasible.
- **MM AQ-9**: Track-out reduction measures will be used, such as gravel pads at Project access points to minimize dust and mud deposits on roads affected by construction traffic.

- **MM AQ-10**: All transported loads of soils and wet materials generated during Project construction will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize the emission of dust (particulate matter) during transportation.
- **MM AQ-11**: Dust and mud that are deposited on paved, public roads due to construction activities will be promptly and regularly removed during Project construction to minimize emission of particulate matter.
- **MM AQ-12**: To the extent feasible, Project construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles traveling along local roads during peak travel times.
- **MM AQ-13**: Mulch will be installed, or vegetation will be planted as soon as practical after grading to reduce windblown particulate in the area. Certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emission issues; therefore, controls such as dampened straw will be used as needed.
- **MM AQ-14**: Under the California Air Resources Board's (ARB) idling emissions rule, 2008 and newer model year heavy-duty diesel engines used for the Project will be equipped with a nonprogrammable engine shutdown system that automatically shuts down the engine after 5 minutes of idling, or optionally meet a stringent nitrogen oxides (NOX) idling emission standard. This rule applies to diesel-fueled commercial motor vehicles that operate in California with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways.
- **MM AQ-15**: To the extent feasible, all construction signal/message boards used for the Project shall be solar powered.
- **MM AQ-16**: To the extent feasible, electricity for Project construction shall be obtained from power poles rather than temporary diesel or gasoline generators.
- **MM AQ-17**: To the extent feasible, the use of recycled materials shall be maximized.
- **MM AQ-18**: To the extent feasible, construction and demolition waste shall be reused or recycled in order to reduce construction waste and reduce consumption of raw materials as well as reducing waste and transportation to area landfills.
- **MM AQ-19**: To the extent feasible, the use of potable water during Project consumption shall be reduced and replaced with recycled water.

2.2.7 Noise and Vibration

Information in this chapter is derived in part from the following technical study:

- Entech. 2023a (February). Noise Study Report State Route 1 (Lincoln Boulevard) Multi-Modal Improvement Project.

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 and CEQA provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise and vibration analyses and consideration of noise and vibration abatement and/or mitigation, however, differ between NEPA and CEQA.

State

<u>California Environmental Quality Act</u>

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The rest of this chapter will focus on the NEPA/Title 23 Part 772 of the CFR (23 CFR 772) noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

For the assessment of potential vibration impacts, the Caltrans has developed threshold criteria for building damage as well as vibration induced annoyance for vibration sensitive uses. For potential cosmetic building damage, vibration damage potential guideline thresholds are shown in Table 2.2.7-1, Vibration Damage Threshold Criteria.

Table 2.2.7-1 – Vibration Damage Threshold Criteria

Structure and Condition	Maximum ppv (in/sec) - Transient Sources	Maximum ppv (in/sec) - Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

ppv: peak particle velocity; in/sec: inch(es) per second.

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2020a.

The Caltrans vibration annoyance potential guideline thresholds are shown in Table 2.2.7-2. Based on the Caltrans guidance, the “strongly perceptible” vibration level of 0.9 peak particle velocity (ppv) inches per second (in/sec) is used in this analysis as the threshold for a potentially significant vibration impact for human annoyance.

Table 2.2.7-2 – Vibration Annoyance Criteria

Average Human Response	ppv (in/sec)
Severe	2.000
Strongly perceptible	0.900
Distinctly perceptible	0.240
Barely perceptible	0.035

ppv: peak particle velocity; in/sec: inch(es) per second.

Source: Caltrans 2020a.

Federal

National Environmental Policy Act and 23 Code of Federal Regulations 772

For highway transportation projects with FHWA involvement (and Caltrans, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 A-weighted decibels [dBA]) is lower than the NAC for commercial areas (72 dBA). Table 2.2.7-3 lists the noise abatement criteria for use in the NEPA/23 CFR 772 analysis.

Table 2.2.7-3 – Noise Abatement Criteria

Activity Category	NAC, Hourly A-Weighted Noise Level, $L_{eq}(h)$	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[1]	67 (Exterior)	Residential.
C[1]	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F	No NAC—reporting only	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing.
G	No NAC—reporting only	Undeveloped lands that are not permitted.

NAC: Noise Abatement Criteria.
[1] Includes undeveloped lands permitted for this activity category.

Figure 2.2.7-1 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this chapter with common activities.

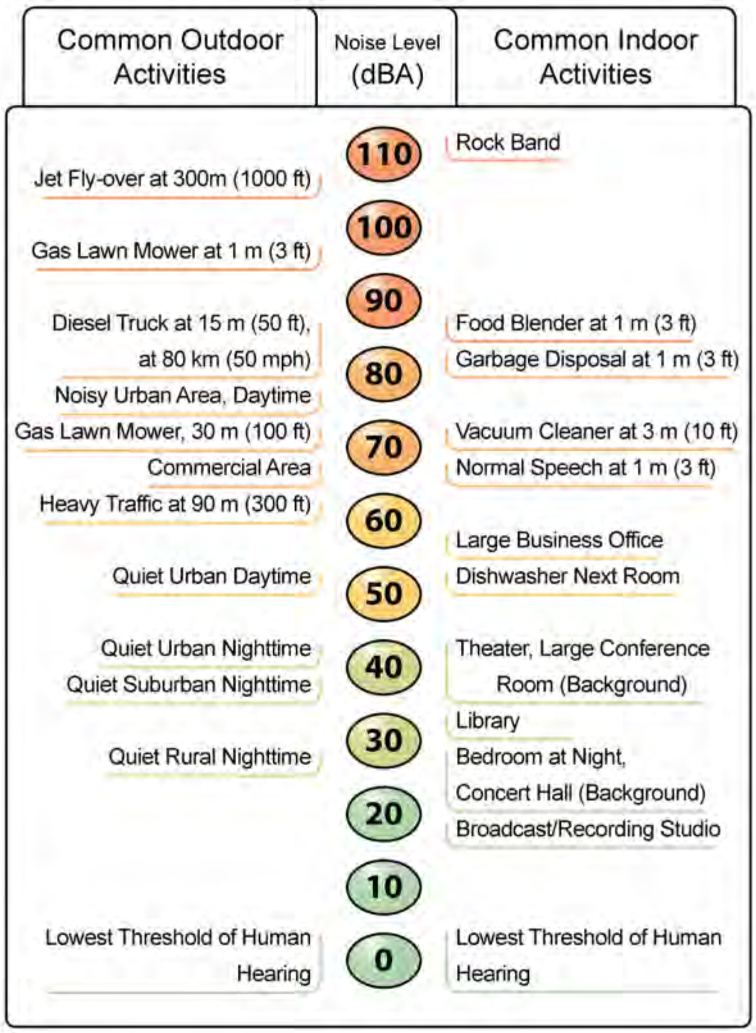


Figure 2.2.7-1: Noise Levels of Common Activities

According to Caltrans' Traffic Noise Analysis Protocol for New Highway, Construction, Reconstruction, and Retrofit Barrier Projects from April 2020, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more) or when the future noise level with the project approaches or exceeds the NAC. A noise level is considered to approach the NAC if it is within 1 dBA of the NAC.

Traffic noise impacts as defined in 23CFR772.5 occur when the predicted noise level in the design year approaches or exceeds the Noise Abatement Criteria (NAC) specified in 23CFR772, or a predicted noise level substantially exceeds the existing noise level.

A substantial noise increase for a Type I project occurs when an increase in noise levels of 5 to 15 dBA is predicted for the design year over the existing noise level.

According to Caltrans' guidance, a substantial noise increase is considered to occur when the project's predicted worst-hour design-year noise level exceeds the existing worst-hour noise level by 12 dBA or more.

If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the Project.

The Caltrans' Traffic Noise Analysis Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 decibels (dB) at an impacted receptor to be considered feasible from an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the following three factors: 1) the noise reduction design goal of 7 dB at one or more impacted receptors; 2) the cost of noise abatement; and 3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

If predicted noise levels exceed the NAC by less than 12 dBA, and noise abatement is not considered reasonable, Caltrans protocols have determined that this would not result in a significant impact pursuant to CEQA.

Local

City of Los Angeles Noise Ordinance and Noise Element

Chapter XI, Noise Regulation, of the City of Los Angles Municipal Code provides requirements and limitations for different forms of noise generation within the City. The ordinances within aim to implement and enforce the goals and policies within the City of Los Angeles General Plan Noise Element.

County of Los Angeles Code of Ordinances

Chapter 12.08, Noise Control, of the County's Code of Ordinances provides requirements and limitations for different forms of noise generation within the County. The ordinances within aim to implement and enforce the goals and policies within Chapter 11, Noise, of the Los Angeles County General Plan.

Environmental Setting

Existing Environment

The project site is located in the City of Los Angeles where the terrain is generally flat relative to the local roadways. The project site was reviewed to identify land uses that would be subject to traffic and construction noise impacts from the proposed Project. Aerial and digital mapping provided by the project Engineer, street views in Google Maps, and field photographs of the project site were used to identify noise sensitive land uses. Sensitive receivers were identified in those areas where outdoor frequent human use would occur, such as multi-family residences and parks and recreation facilities. These sensitive receivers fall into FHWA and Caltrans NAC Activity Categories B and C, each with an activity level of 67 dBA L_{eq} (h). Land uses near SR-1/Lincoln Boulevard consist of multi-family residences and a park.

Short-term noise monitoring was conducted at five locations in the area on March 14 and 15, 2018 which are depicted in Figure 2.2.7-2. Measurements were taken for a duration of 20 minutes. Meteorological conditions (i.e., temperature, wind speed and direction, relative humidity) were logged for each measurement session on field data forms. Manual vehicle classification counts were conducted for adjacent roadways at each measurement location for subsequent use in validating the noise prediction model. Long-term noise monitoring was conducted at one location to establish the existing noise environment. Noise measurements were conducted using a Larson- Davis Model 824 Type 1 sound level meter and resulted in existing ambient noise levels of 52 to 72 dBA L_{eq}. Traffic modeling of existing peak hour noise levels at the project site range from 43 to 70 dBA L_{eq}. Existing traffic noise levels were found to exceed the applicable NAC at representative residential receiver locations. More details on existing noise levels are provided in Appendix B of the Noise Study Report.

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Alternative 1 would not require any construction activities; therefore, Alternative 1 would have no short-term effects related to noise and vibration.

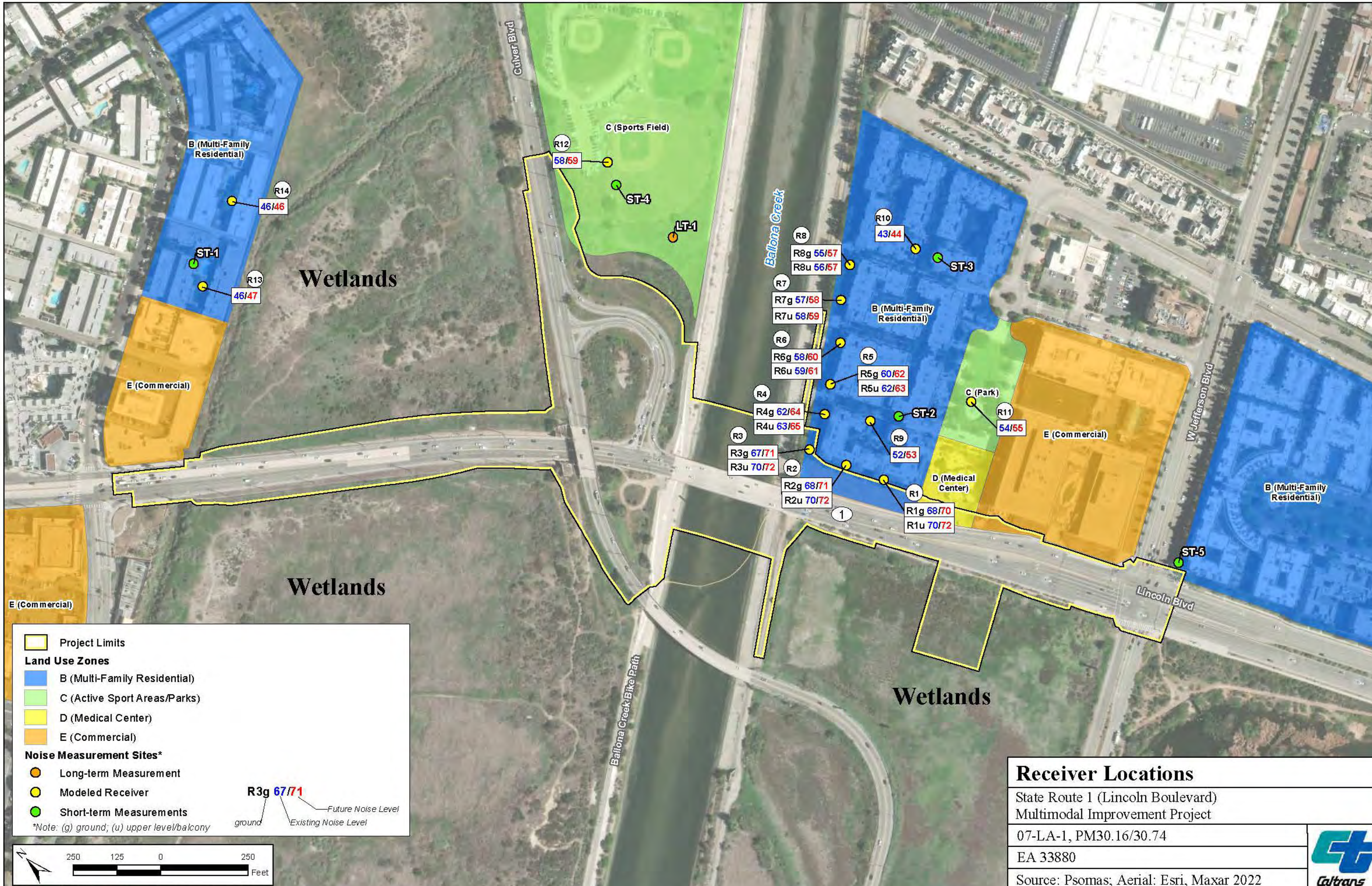

Culver Blvd
C (Sports Field)
B (Multi-Family Residential)
R12
58/59
ST-4
LT-1
R14
46/46
ST-1
R13
46/47
Wetlands
E (Commercial)
Ballona Creek
R10
43/44
ST-3
R8
R8g 55/57
R8u 56/57
R7
R7g 57/58
R7u 58/59
B (Multi-Family Residential)
R6
R6g 58/60
R6u 59/61
R5
R5g 60/62
R5u 62/63
C (Park)
R4
R4g 62/64
R4u 63/65
ST-2
R11
54/55
E (Commercial)
W Jefferson Blvd
R3
R3g 67/71
R3u 70/72
R9
52/53
R2
R2g 68/71
R2u 70/72
D (Medical Center)
R1
R1g 68/70
R1u 70/72
1
B (Multi-Family Residential)
ST-5
Lincoln Blvd
Wetlands
E (Commercial)
Ballona Creek Bike Path
Wetlands
Project Limits
Land Use Zones
B (Multi-Family Residential)
C (Active Sport Areas/Parks)
D (Medical Center)
E (Commercial)
Noise Measurement Sites*
Long-term Measurement
Modeled Receiver
Short-term Measurements
*Note: (g) ground; (u) upper level/balcony
R3g 67/71
Future Noise Level
ground
Existing Noise Level
250 125 0 250
Feet
Receiver Locations
State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project
07-LA-1, PM30.16/30.74
EA 33880
Source: Psomas; Aerial: Esri, Maxar 2022
Caltrans

Figure 2.2.7-2

Operational Effects

The Noise Study Report prepared for this Project included traffic noise modeling for Alternative 1 in the design year (2050), which determined that traffic noise would range from 43 to 70 dBA L_{eq}, which represent an increase of up to 1 dB over existing noise levels for the noise receptors that were analyzed. This increase is due to a projected increase in traffic volumes that would occur between existing and future design year (2050) conditions. The design year (2050) noise levels for Alternative 1 would exceed their respective NAC Activity Category standard.

Balconies of the multifamily residential units south of Ballona Creek and east of SR-1/Lincoln Boulevard are the outdoor frequent human use areas that are the most sensitive to traffic noise within the project site. No existing wall currently shields these receivers from noise generated from SR-1/Lincoln Boulevard, and no noise barrier would be built as part of Alternative 1. The existing noise levels at some of the outdoor frequent human use areas at this location currently exceed the NAC and would continue to exceed the NAC under Alternative 1. Vibration effects from Alternative 1 would be similar to existing conditions, since Alternative 1 would not change the alignment of the roadway or its proximity to structures.

Cumulative Effects:

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to noise and vibration.

Alternative 2 – Base Alternative

Construction Effects

During construction of Alternative 2, noise from construction activities would intermittently dominate the noise environment in the project site and immediate surroundings. SR-1/Lincoln Boulevard Bridge piles would be cast-in-steel shell over Ballona Creek and for the replacement Culver Boulevard Bridge it would be cast-in-drill holes. As such, no impact pile driving would be required. Table 2.2.7-4 summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 68 to 82 dB at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance. The magnitude of noise from construction equipment vary based on how many pieces of equipment are working concurrently proximate to the a specific noise sensitive receptor.

Construction activities would adhere to all applicable City and Caltrans specifications. Different pieces of equipment would be operating at various utilization rates. Since construction activities for Alternative 2 involves the development of a bridge and a linear roadway, construction activities would occur in a linear manner and would not result in continuous noise exposure at the same noise sensitive receptor. As such, construction equipment would be located throughout the construction area and not every piece of equipment would be operating within 15-20 feet of buildings.

To minimize the construction-generated noise, abatement measures in standard Specification 14-8.02, "Noise Control" and SSP 14-8.02 would be followed. This requirement shall not relieve the Contractor from responsibility for complying with local ordinances regulating noise levels.

- Do not exceed 86 dBA at 50 feet from the job site activities from 9 PM–6 AM.
- Equip an internal combustion engine with the manufacturer recommended muffler.
- Do not operate an internal combustion engine on the job site without the appropriate muffler.

Table 2.2.7-4 – Construction Equipment Noise

Equipment	Average Noise Level (dBA at 50 feet)
Dozer	78
Excavator	77
Auger Drill Rig	77
Crane	73
Grader	81
Roller	73
Front End Loader	75
Generator (<25KVA, VMS signs)	70
Man Lift	68
Compressor (air)	74
Compactor (ground)	76
Pumps	78
Paver	75
Pavement Scarifier	82

dBA: A-weighted decibels
Source: Roadway Construction Noise Model

Construction would be conducted in accordance with the following requirements:

Standard Specification 14-8.02: Control and monitor noise resulting from work activities. Do not exceed 86 dBA L_{max} at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.;

State Safety Program 14-8.02: The contractor shall comply with all local sound control and noise level rules, regulations and ordinances that apply to any work performed pursuant to contract;

Los Angeles County: Section 12.08.440 - The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule:

1. At Residential Structures.

   a. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

-	**Single-family Residential**	**Multi-family Residential**	**Semi Residential/Commercial**
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	75 dBA	80 dBA	85 dBA
Daily, 8:00 PM to 7:00 AM and all-day Sundays and legal holidays	60 dBA	64 dBA	70 dBA

   b. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

-	**Single-family Residential**	**Multi-family Residential**	**Semi Residential/Commercial**
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	60 dBA	65 dBA	70 dBA
Daily, 8:00 PM to 7:00 AM and all-day Sundays and legal holidays	50 dBA	55 dBA	60 dBA

City of Los Angeles: Section 112.05 - Between the hours of 7:00 a.m. and 10:00 p.m., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:

(a) 75dB(A) for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;

(b) 75dB(A) for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;

(c) 65dB(A) for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors.

Construction noise would be short-term, intermittent, and would cease after construction activities are completed. In addition, as shown in Table 2.2.7-4, average construction noise levels are not anticipated to exceed 82 dBA at 50 feet for individual equipment. Also, construction equipment would be located throughout the project site and would not be concentrated adjacent to sensitive receptors for the duration of construction. Nevertheless, construction equipment required for Alternative 2 would result in higher levels of noise when multiple pieces of equipment operate together proximate to noise sensitive uses and would potentially result in significant adverse impacts. As a result, **MM NOI-1** would be implemented, which requires that noise produced from construction equipment shall be operated consistent with Caltrans Specification 14 8.02, "Noise Control" which establishes nighttime construction noise limits and SSP 14-8.02, which requires noise from construction activities to follow the limits established by the City and County of Los Angeles. Project construction noise will be below these limits by implementing noise attenuation measures which can include engine enclosures/mufflers, allocating the noisiest activities to the least noise sensitive portions of the day, substitution to quieter equipment, use of portable noise barriers, siting stationary equipment and staging areas away from nearby noise sensitive uses, as well as other noise reduction measures. Compliance with the noise limits will be confirmed through onsite noise monitoring.

<u>Construction Noise Effects at the Ballona Wetlands Ecological Reserve</u>

Portions of the BWER that are adjacent to SR-1/Lincoln Boulevard have existing sound levels between 67 and 68 dBA, while sound levels drop down to 58 to 62 dBA range as you get approximately 200 feet from the existing roadway (Caltrans 2021a). Masking of communication signals and other biologically relevant sounds for birds are believed to be affected by continuous noise levels of 60 dBA or greater but can be lower or higher depending on the bird species (Caltrans 2016a). Based on Caltrans standards, 67 dBA is the appropriate noise abatement criteria level for the BWER. Therefore, there is already traffic noise which effects the function of wildlife within the BWER and which exceeds the applicable noise abatement criteria.

During construction, Alternative 2 would result in temporary construction noise ranging from 70 to 86 dBA at a distance of 50 feet, depending on the work activity. This would represent up to a 19 dBA increase from existing ambient conditions temporarily during construction.

Mitigation measures would be implemented to minimize potential effects to wildlife temporarily during construction, including biological monitoring and preconstruction nesting bird surveys. Biological effects from construction noise would be minimized through biological monitoring and scheduling work outside of the avian breeding season as described in more detail in Chapter 2.2.13, Animal Species.

<u>Vibration</u>

Vibration would be created by construction vehicles used for development of Alternative 2. Potential vibration impacts are assessed based on Caltrans methods and threshold criteria. Table 2.2.7-5 provides a summary of typical vibration levels measured during construction activities for various vibration-inducing equipment at a distance of 25 feet.

Table 2.2.7-5 – Vibration Levels for Construction Equipment

Equipment	ppv at 25 ft (in/sec)
Vibratory roller	0.210
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

ppv: peak particle velocity; ft: feet; in/sec: inches per second.

Source: Caltrans 2020a.

There is one building at the northern end of the project site near Fiji Way that is approximately 15-20 feet from the edge of construction activities. There are also buildings south of Ballona Creek on the east side of the roadway where work activities would be within 15-20 feet of existing structures.

Most construction activities for Alternative 2 would occur at least 25 feet away from developed buildings. Table 2.2.7-6 provides the vibration levels anticipated during construction of Alternative 2 compared to the vibration annoyance criteria.

Table 2.2.7-6 – Construction Vibration at the Nearest Buildings

Equipment	Vibration Levels at Different Distances (ppv @ 15 ft)	Vibration Levels at Different Distances (ppv @ 20 ft)	Vibration Levels at Different Distances (ppv @ 25 ft)
Vibratory roller	0.45	0.29	0.21
Caisson Drill	0.19	0.12	0.09
Large bulldozer	0.19	0.12	0.09
Small bulldozer	0.01	0.00	0.00
Jackhammer	0.08	0.05	0.04
Loaded trucks	0.16	0.11	0.08
Annoyance Criteria	**0.9**	**0.9**	**0.9**
Exceeds Annoyance Criteria?	**No**	**No**	**No**
Building Damage Criteria	**0.5**	**0.5**	**0.5**
Exceeds Criteria?	**No**	**No**	**No**

ppv: peak particle velocity; ft: feet.

Note: Calculations can be found in Appendix G).

Source: Caltrans 2020a.

As shown in Table 2.2.7-6, vibration levels would not exceed the criteria threshold when construction activities occur under the analyzed distances of 15 feet to 25 feet. Since construction activities would be set back at least 15 feet from structures, no substantial adverse construction effects related to vibration are anticipated.

Operational Effects

Traffic Noise

Traffic noise modeling was conducted for Alternative 2 in the design year (2050), which determined that noise levels would range from 44 to 72 dBA L_{eq}, which is an increase of approximately 2 dB over design year Alternative 1 noise levels for all of the noise receptors that were modeled. Noise levels would exceed their respective NAC Activity Category standard. Therefore, Alternative 2 would cause a noise impact to the surrounding area. Future noise levels with and without Alternative 2 for the design year are provided in Appendix B of the project's NSR. Based on the studies completed to date, it is the intent of the City and Caltrans to implement noise abatement as part of Alternative 2 in the form of a noise barrier (e.g., sound wall) along the east side of SR-1/Lincoln Boulevard south of Ballona Creek along the eastern edge of the right-of-way line. If built, the wall would be approximately 350 feet in length and would be approximately 16 feet in height and would benefit 20 residences. This noise barrier is depicted in Figure 2.2.7-3.

Balconies of the multi-family residential units are the frequent outdoor human use areas located along SR-1/Lincoln Boulevard near Ballona Creek represented by Receivers R1-g, R1-u, R2-g, R2-u, R3-g and R3-u. No existing wall currently shields these receivers from noise generated from Lincoln Boulevard. However, existing noise levels at some of the outdoor frequent human use areas at this location currently exceed the NAC and would continue to exceed under Alternative 1. Alternative 2 would slightly increase noise levels compared to Alternative 1 conditions and would continue to exceed the NAC; therefore, a noise abatement evaluation was prepared.

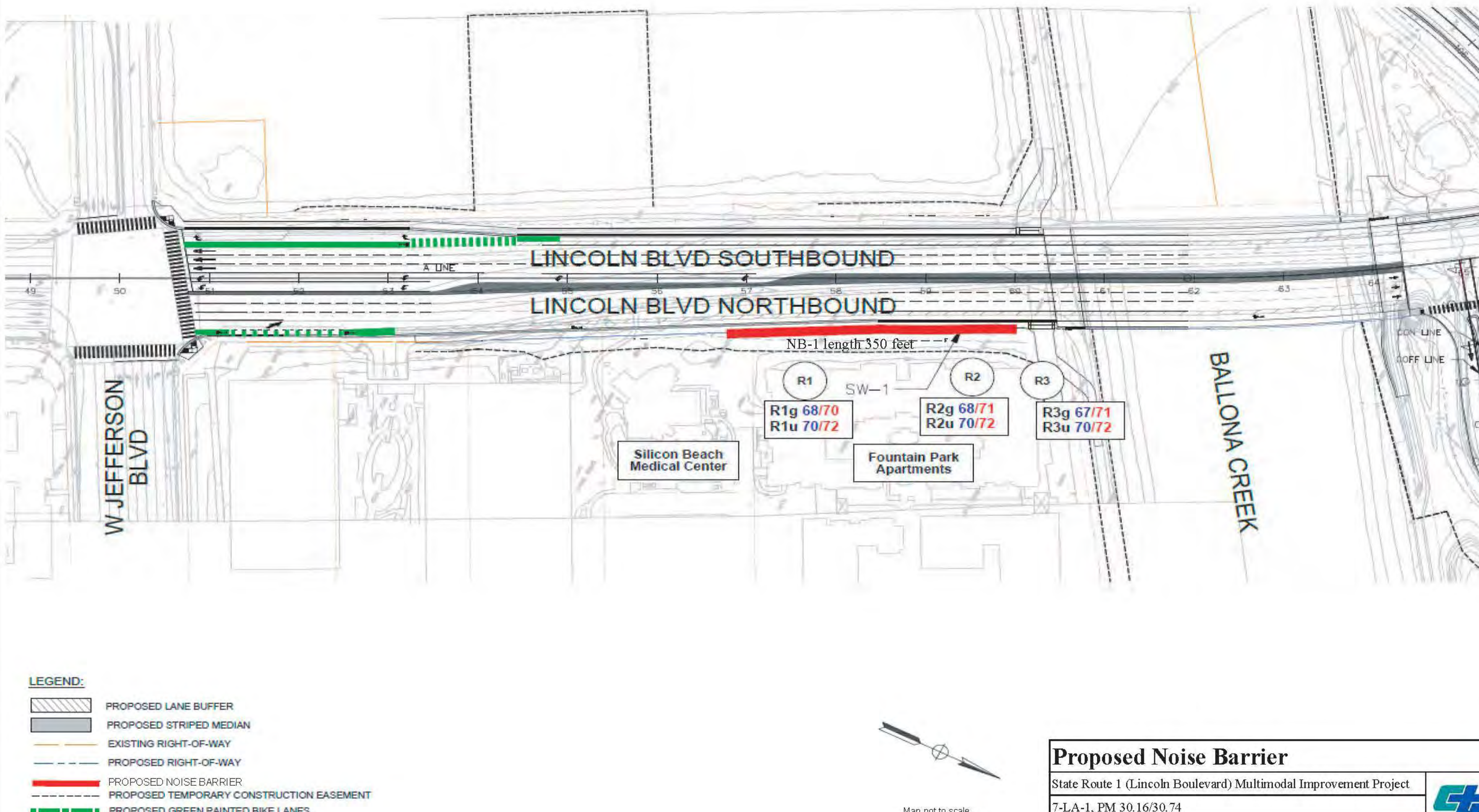
Barrier NB-1 was evaluated along the right of way (ROW) line of SR-1/Lincoln Boulevard. This is the closest location to Project noise generators for barrier placement. Barrier NB-1 was found to be effective in achieving a minimum 5-dB reduction at a wall height of 10 feet for Receiver R1-g. The Caltrans design goal of 7-dB was achieved at a height of 16 feet for Receiver R1-g. Receivers R1-u and R2-u meet the Caltrans minimum 5-dB reduction at a wall height of 14 feet. Only Receiver R1-u was able to achieve the Caltrans design goal of 7-dB at a height of 16 feet. Table 2.2.7-7 summarizes the calculated noise reductions and reasonable allowances for each noise barrier height.

Table 2.2.7-7 – Summary of Reasonableness Determination Data - Barrier NB-1

Barrier ID: **NB-1**						
Predicted Noise Level without Noise Barrier						
Receiver: R-1						
Design Year Noise Level dBA L_{eq}(h): 70						
Design Year Noise Level Minus Existing Noise Level:						
Barrier Heights	**6-feet**	**8-feet**	**10-feet**	**12-feet**	**14-feet**	**16-feet**
Barrier Noise Reduction, dB			5	6	6	7
Number of Benefited Residences			10	20	20	20
Reasonable Allowance Per Benefitted Residence			$107,000	$107,000	$107,000	$107,000
Total Reasonable Allowance			$1,070,000	$2,140,000	$2,140,000	$2,140,000

Note: Shaded Areas-Noise Barrier does not provide a 5-dB noise reduction

If during final design, conditions have substantially changed, noise abatement may not be necessary. The final decision on the noise barrier will be made upon completion of the project design and the public involvement process. There is a potential that the property owner and residents of the multi-family units would vote against a noise barrier to preserve views of the BWER and Ballona Creek. Since a final decision on the noise barrier has not yet been made, this



Proposed Noise Barrier

State Route 1 (Lincoln Boulevard) Multimodal Improvement Project

7-LA-1, PM 30.16/30.74

EA 07-33880

Caltrans

Figure 2.2.7-3

impact analysis for operational noise effects assumes that the wall would not be built since this would result in the greatest operational effects. If this noise barrier were not built as part of Alternative 2, noise levels would be approximately 2 to 7 dB higher for areas east of SR-1/Lincoln Boulevard that would have been benefitted by this barrier, which consist of apartments and apartment balconies within the Fountain Park Apartments.

Table 2.2.7-8 – Existing and Future Noise Measurements For Alternatives 1 and 2

Receiver ID	Land Use	Existing Noise Level	Design Year Noise Level With Alternative 1	Design Year Noise Level With Alternative 2 And With No New Noise Barrier	Activity Category
R1-g*	MFR	68	68	70	B (67)
R2-g*	MFR	68	68	71	B (67)
R3-g*	MFR	67	68	71	B (67)
R4-g	MFR	62	63	64	B (67)
R5-g	MFR	60	61	62	B (67)
R6-g	MFR	58	59	60	B (67)
R7-g	MFR	57	57	58	B (67)
R8-g	MFR	55	56	57	B (67)
R9	Pool	52	53	53	C (67)
R10	Pool	43	43	44	C (67)
R11	Park	54	54	55	C (67)
R12	Park	58	58	59	C (67)
R13	Pool	46	46	47	C (67)
R14	Pool	46	46	46	C (67)
R1-u*	MFR	70	70	72	B (67)
R2-u*	MFR	70	70	72	B (67)
R3-u*	MFR	70	70	72	B (67)
R4-u	MFR	63	64	65	B (67)
R5-u	MFR	62	62	63	B (67)
R6-u	MFR	59	60	61	B (67)
R7-u	MFR	58	59	59	B (67)
R8-u	MFR	56	57	57	B (67)

Notes:
NAC: Noise Abatement Criteria; MFR: Multiple Family Residence; g: ground floor; u: upper floor.

*Denotes receptors that would be benefitted by noise barrier NB-1, if built. As shown in Appendix B of the Noise Study Report, these receptors would experience an insertion loss of between 2 dB and 7 dB if this noise barrier were built.
Source: Entech 2022a, provided as Appendix R. See Appendix B (Future Noise Levels).

Alternative 2 includes the use of Rubberized Hot Mix Asphalt (RHMA) instead of conventional hot mix asphalt to reduce operational noise effects. However, research has shown that the noise abatement resulting from RHMA diminishes with time (Tehrani 2015a). Therefore, although RHMA is being utilized the noise benefits of RHMA are not accounted for in the noise calculations.

Operational Noise Effects at the BWER

Once built, Alternative 2 would result in projected noise levels within areas of the BWER nearest SR-1/Lincoln Boulevard of between 1 dBA and 3 dBA higher than existing conditions, which are already noisy and in exceedance of the 67 dBA noise abatement criteria level for the BWER. Noise barriers along the BWER were not considered for this Project as they would introduce undesirable visual and biological effects. In accordance with § 774.15 of the CFR, a constructive use would not occur for Alternative 2 since the projected noise levels would exceed the relevant threshold contained in paragraph (f)(2) of § 774.15 (i.e., the NAC) because of high existing noise, but the increase in the projected noise level is 3 dBA or less.

Vibration

Vibration generated during the construction of Alternative 2 by vehicle traffic would not result in perceptible levels of vibration due to vehicles travelling on air-filled tires which do not impart substantial levels of vibration.

<u>Cumulative Effects</u>

Alternative 2 would result in temporary increases in noise and vibration levels related to construction activities. Similarly, construction noise and vibration increases would result from the construction of other cumulative projects within and near the project site. Each of these projects would be implemented in accordance with applicable noise ordinance(s) and/or specifications, which would minimize the effects of these activities on nearby noise receptors. Regardless, there is potential that construction activities for Alternative 2 and other cumulative projects could overlap and/or could occur in close sequence to one another, which would result in a longer period of exposure to noise effects than would occur for just one of these projects were implemented.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would include construction of a retaining wall along the west side of SR-1/Lincoln Boulevard north of the Culver Boulevard Bridge. Overall, no additional noise is anticipated from these activities when compared to noise levels anticipated for Alternative 2.

Operational Effects

The operational effects of Alternative 2A related to noise and vibration would be the same as described for Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to noise and vibration would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Widening of the Roadway Over Fiji Ditch to Avoid Direct Impacts to a Wetland Feature

Construction Effects

Alternative 2B would include cantilevered sidewalks instead of traditional sidewalks. Overall, no additional noise is anticipated from these activities when compared to noise levels anticipated for Alternative 2.

Operational Effects

The operational effects of Alternative 2B related to noise and vibration would be the same as described for Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related noise and vibration would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would include construction of a wider Culver Boulevard Bridge. Overall, no additional noise is anticipated from these activities when compared to noise levels anticipated for Alternative 2.

Operational Effects

The operational effects of Alternative 2C related to noise and vibration would be the same as described for Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to noise would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Provide Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would include construction of an additional pedestrian and bicycle ramp. Overall, no additional noise is anticipated from these activities when compared to noise levels anticipated for Alternative 2.

Operational Effects

The operational effects of Alternative 2D related to noise and vibration would be the same as described for Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to noise would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM NOI-1**: Noise produced from construction equipment shall be operated consistent with Caltrans Specification 14 8.02, “Noise Control” which establishes nighttime construction noise limits and SSP 14-8.02, which requires noise from construction activities to follow the limits established by the City and County of Los Angeles.

  Project construction noise will be below these limits by implementing noise attenuation measures which can include, but not limited to, including engine enclosures/mufflers, allocating the noisiest activities to the least noise sensitive portions of the day, substitution to quieter equipment, use of portable noise barriers, siting stationary equipment and staging areas away from nearby noise sensitive uses, as well as other noise reduction measures. Compliance with the noise limits will be confirmed through onsite noise monitoring.

2.2.8 Energy

Regulatory Setting

Federal

National Environmental Policy Act

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act (EISA) of 2007 (Public Law 110–140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The EISA sets increased Corporate Average Fuel Economy Standards; the Renewable Fuel Standard; appliance energy efficiency standards; building energy efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration.

State

California Environmental Quality Act

State CEQA Guidelines Section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project’s energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates utility companies and ensures the provision of safe, reliable utility service and infrastructure related to electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. CPUC General Order 112E, which is based on the Federal Department of Transportation Guidelines contained in Part 192 of the Code of Federal Regulations, specifies a variety of design, construction, inspection, and notification requirements. The CPUC conducts annual audits of pipeline operations to ensure compliance with these safety standards. In addition, SCGC has a safety program which has reduced the risk of gas distribution fires by improving welds on the larger diameter (24- to 30-inch) pipelines and by replacing old distribution pipes with flexible plastic pipes.

Renewables Portfolio Standard

The California Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill (SB) 1078 and was amended in 2006 and 2011. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. The CPUC is required to provide quarterly progress reports regarding the State's progress toward RPS goals.

SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 implements some of the goals of Executive Order (EO) B-30-15. Based on California Legislative Information 2015, the objectives of SB 350 are:

1. To increase from 33 percent to 50 percent, the procurement of California's electricity from renewable sources; and
2. To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

The text of SB 350 sets a December 31, 2030 target for 50 percent of electricity to be generated from renewable sources. In 2022, APU produced 35.9% of electricity from renewable sources. The RPS requires the public utilities within California to achieve 100 percent electricity generation from renewable energy sources by 2050.

California Energy Commission

In 1974, the California Energy Commission (CEC) was created to be the State's principal energy planning organization and to meet the energy challenges facing the State in response to the 1973 oil embargo. The CEC is charged with seven basic responsibilities when designing State energy policy:

- Advancing State Energy Policy;
- Achieving Energy Efficiency;
- Certifying Thermal Power Plants;
- Investing in Energy Innovation;
- Transforming Transportation;
- Developing Renewable Energy; and
- Preparing for Energy Emergencies.

State Alternative Fuels Plan

Assembly Bill (AB) 118 requires the CEC to prepare a plan to increase the use of alternative fuels in California. The State Alternative Fuels Plan was prepared by the CEC with the California Air Resources Board (CARB) and in consultation with other federal, State, and local agencies to reduce petroleum consumption, to increase use of alternative fuels (e.g., ethanol, natural gas, liquefied petroleum gas, electricity, and hydrogen), to reduce greenhouse gas (GHG) emissions, and to increase in-state production of biofuels. The State Alternative Fuels Plan recommends a strategy that combines private capital investment, financial incentives, and advanced technology that will increase the use of alternative fuels, result in significant improvements in the energy efficiency of vehicles, and reduce trips and vehicle miles traveled through changes in travel habits and land management policies.

Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The CEC adopted the 2008 changes to the Building Energy Efficiency Standards in order to (1) provide California with an adequate, reasonably priced, and environmentally-sound supply of energy; and (2) respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHGs to 1990 levels by 2020. Title 24, Part 6 of the 2016 California Building Standards Code (known as the 2016 California Energy Code or "Title 24") went into effect on January 1, 2017. California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 Energy Standards went into effect on January 1, 2020 and improved upon the 2016 standards for new construction, additions, and alterations of residential and nonresidential buildings (CEC 2022a). The 2022 Energy Efficiency Standards improves upon the 2019 Energy Code for new construction of, and additions and alterations to, residential and non-residential buildings. Proposed standards has an effective date of January 1, 2023.

Green Building Standards

The California Building Standard Commission's (CBSC's) mission is to produce sensible and usable state building standards and administrative regulations that implement or enforce those standards. The 2022 California Green Building Standards Code (CCR, Title 24, Part 11), also known as the "CALGreen Code", contains mandatory requirements for new residential and non-residential buildings (including buildings for retail, office, public schools, and hospitals) throughout California. The 2019 CALGreen Code went into effect on January 1, 2020. The development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. The CALGreen Code has established regulations to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction. The CALGreen Code contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The CALGreen Code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency. The 2022 CalGreen Code went into effect throughout California on January 1, 2023 (CBSC 2022a).

Environmental Setting

Energy is currently consumed within the project site by automobiles, trucks, motorcycles, and busses. Energy usage also occurs within the project site to power streetlights and traffic signals.

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Alternative 1 would involve no construction activities; therefore, this alternative would result in no usage of energy by construction vehicles or other energy-related impacts.

<u>Operational Effects</u>

Alternative 1 would maintain operation of the existing roadway; therefore, vehicle miles traveled (VMT) reductions and associated transportation fuel reductions would not occur under this alternative.

<u>Cumulative Effects</u>

Alternative 1 would result in no construction or operational energy effects. Alternative 1 would not result in reductions in VMT and the improvement of bicycle and pedestrian infrastructure. Therefore, Alternative 1 would not result in any cumulative effects related to energy.

Alternative 2 – Base Alternative

Construction Effects:

Direct Energy Use During Construction

Construction of Alternative 2 would require the use of construction equipment for grading, hauling, and building activities. Construction of Alternative 2 would also involve the use of vehicles of construction workers and vendors traveling to and from the project site and on-road haul trucks for the import of soil for grading and for the export of demolition materials.

Off-road construction equipment use for Alternative 2 was calculated based on the equipment data (vehicle types, hours per day, horsepower, load factor) provided in the Roadway Construction Emissions Model output files that are included in Appendix Q, Air Quality Appendices. The total horsepower hours for construction equipment used for Alternative 2 was then multiplied by fuel usage rates to obtain the total fuel usage for off-road equipment.

Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the Roadway Construction Emissions Model output files. Total VMT was then calculated for each type of construction-related trip and divided by the fuel consumption factor from CARB's EMission FACtors (EMFAC) model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. As shown in Table 2.2.8-1, Alternative 2 would consume a total of approximately 56,197 gallons of gasoline fuel (or 6,755,682,213 BTU) and approximately 215,307 gallons of diesel (or 25,882,977,211 BTU) during construction.

Table 2.2.8-1 – Total Energy Use During Construction

Source	Gasoline Gallons	Gasoline BTU	Diesel Fuel Gallons	Diesel Fuel BTU
Off-road construction equipment	20,346	2,445,879,857	181,123	21,773,572,068
Worker commute	35,540	4,272,415,713	94	11,300,142
Vendor trips	292	35,102,571	3	360,642
On-road haul trips	19	2,284,071	34,086	4,097,624,142
Total	**56,197**	**6,755,682,213**	**215,307**	**25,882,977,211**

Sources: Psomas 2024a based on data from CalEEMod, Offroad, and EMFAC.
Note: Totals may not add due to rounding.

Fuel energy consumed during construction would be temporary in nature and would not represent a significant demand on energy resources. Furthermore, there are no unusual characteristics of Alternative 2 that would necessitate the use of construction equipment that would be less energy-efficient than comparable equipment at construction sites in other parts of the State. Energy used in the construction of Alternative 2 would enable the development of roadway infrastructure that reduces traffic congestion which allows for a long-term reduction in VMT in the local area as vehicles would no longer go around the project site to avoid congestion. In addition, Alternative 2 would be developed to serve transit, bicyclists and pedestrians which would also reduce dependence on automobiles and thereby would reduce usage of transportation fuels. Therefore, the proposed construction activities would not result in inefficient, wasteful, or unnecessary fuel consumption.

Operational Effects

Energy consumption associated with operation of Alternative 2 would consist of electricity for lighting and transportation fuels. Energy used for lighting for Alternative 2 is not anticipated to change substantially from existing conditions. Transportation related energy consumption of gasoline and diesel fuel was calculated based on the quantity of vehicles, average travel distance, vehicle class, and fuel efficiency of each vehicle class as provided by the EMFAC model. Energy consumption calculations are included in in Appendix Q, Air Quality Appendices.

Changes in transportation fuel consumption as calculated based on the estimated VMT that would occur with Alternative 1 and Alternative 2. As shown in Table 2.2.8-2, below, fuel consumption of gasoline and diesel with Alternative 2 would be below the fuel consumption under Alternative 1, the No Project Alternative, due to the reduced VMT that would occur. Because Alternative 2 would reduce VMT and would develop infrastructure which serves transit, bicyclists and pedestrians, energy consumption associated with Alternative 2 would not be considered inefficient, wasteful, or unnecessary.

Table 2.2.8-2 – Annual Transportation Energy Usage During Operation

Source	Vehicle Miles Travelled	Gasoline Fuel in Gallons	Gasoline Fuel in BTU	Diesel Fuel in Gallons	Diesel Fuel in BTU
Alternative 1	683,464	553,630	66,554,234,992	38,269	4,600,480,499
Alternative 2	655,807	531,227	63,861,074,349	36,720	4,600,480,499
Percent of Alternative 1 to Alternative 2	***96%***	***96%***	***Not applicable***	***Not applicable***	***Not applicable***

Sources: Psomas 2024a based on data from CalEEMod.

Cumulative Effects

Cumulative effects associated with Alternative 2 includes a long-term reduction in transportation fuel consumption due to a reduction in VMT and the development of pedestrian, transit, and bicycle infrastructure. This reduction in transportation fuels would be support the State of California's goal of energy reduction associated with efficient transportation systems.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would require implementation of a retaining wall along the west side of SR-1/Lincoln Boulevard north of the Culver Boulevard Bridge. Energy consumption is anticipated to be comparable to the estimates provided in Alternative 2, however Alternative 2A would require additional energy consumption associated with construction of the retaining wall. As discussed for Alternative 2, energy consumption to construct and implement the proposed roadway improvements would lead to a long-term reduction in transportation fuel consumption due to a reduction in VMT and through the development of pedestrian, transit, and bicycle infrastructure.

Operational Effects

Under Alternative 2A, operational effects related to energy would be the same as described for Alternative 2.

Cumulative Effects

Under Alternative 2A, cumulative effects related to energy would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Widening of the Roadway Over Fiji Ditch to Avoid Direct Impacts to a Wetland Feature

Construction Effects

Alternative 2B would install cantilevered edges to SR-1/Lincoln Boulevard at Fiji Ditch . Energy consumption is anticipated to be comparable to the estimates provided in Alternative 2. As discussed for Alternative 2, energy consumption to construct and implement the proposed roadway improvements would lead to a long-term reduction in transportation fuel consumption due to a reduction in VMT and through the development of pedestrian, transit, and bicycle infrastructure.

Operational Effects

Under Alternative 2B, operational effects related to energy would be the same as described for Alternative 2.

Cumulative Effects

Under Alternative 2B, cumulative effects related to energy would be the same as described for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would develop a wider replacement Culver Boulevard Bridge over SR-1/Lincoln Boulevard. Energy consumption is anticipated to be comparable to the estimates provided in Alternative 2, however Alternative 2C would require additional energy consumption associated with construction of the wider Culver Boulevard Bridge. As discussed for Alternative 2, energy consumption to construct and implement the proposed roadway improvements would lead to a long-term reduction in transportation fuel consumption due to a reduction in VMT and through the development of pedestrian, transit, and bicycle infrastructure.

Operational Effects

Under Alternative 2C, operational effects related to energy would be the same as described for Alternative 2.

Cumulative Effects

Under Alternative 2C, cumulative effects related to energy would be the same as described for Alternative 2.

Alternative 2D – Design Variation D – Provide Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would develop an additional bicycle/pedestrian ramp. Energy consumption is anticipated to be comparable to the estimates provided in Alternative 2, however Alternative 2D would require additional energy consumption associated with the additional ramp that would be built. As discussed for Alternative 2, energy consumption to construct and implement the proposed roadway improvements would lead to a long-term reduction in transportation fuel consumption due to a reduction in VMT and through the development of pedestrian, transit, and bicycle infrastructure.

Operational Effects

Under Alternative 2D, operational effects related to energy would be the same as described for Alternative 2.

Cumulative Effects

Under Alternative 2D, cumulative effects related to energy would be the same as described for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are applicable to this resource topic.

2.3 Biological Environment

The following chapters of the Draft EIR/EA includes summaries of information that is provided in the Project's Natural Environment Study (NES), which is provided as Appendix S.

2.3.1 Natural Communities

Regulatory Setting

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act of 1976 (Magnuson-Stevens Act), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established a requirement to describe and identify "essential fish habitat" (EFH) in each federal fishery management plan (FMP). EFH is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC Section 1802[10]). Only species in a fishery management unit managed under a federal FMP are covered under EFH. The Magnuson-Stevens Act requires federal agencies to consult with the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service (also known as the National Marine Fisheries Service [NMFS]) when any activity proposed to be authorized, funded, or undertaken by a federal agency may adversely affect designated EFH. An adverse effect includes direct or indirect physical, chemical, or biological alteration and includes adverse changes to waters or substrate, species and their habitat, other ecosystem components, and quality and/or quantity of EFH.

The web mapper provided on the NMFS website identifies groundfish EFH as occurring within the project site within Ballona Creek. Groundfish are fish such as rockfish, sablefish, flatfish, and Pacific whiting that are often (but not exclusively) found on or near the ocean floor or other structures. NMFS interprets EFH in its regulations as follows: "waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish, and may include areas historically used by fish where appropriate; "substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities; "necessary" means "the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem"; and "spawning, breeding, feeding, or growth to maturity" covers the full life cycle of a species.

The extent of groundfish EFH is identified as all waters and substrate with depths less than or equal to 3,500 meters to mean higher high-water level (MHHW) or the upriver extent of saltwater intrusion, defined as upstream and landward to where ocean-derived salts measure less than 0.5 ppt during the period of average annual low flow. Groundfish EFH is mapped along the entire California coastline, including waters and substrate adjacent to the project site such as Marina Del Rey and Santa Monica Bay.

In addition to EFH, the project site is also within a Habitat Area of Particular Concern (HAPC). HAPCs are areas within EFH that are considered "high priority areas for conservation, management, or research due to their rare, sensitive, stressed by development, or important to ecosystem function". The HAPC in the project site is defined as an estuary.

Federal agencies that fund, permit, or implement activities that may adversely affect EFH are required to consult with NMFS regarding potential adverse effects of the Project's proposed alternatives on EFH and respond in writing to the NMFS recommendations.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) establishes a federal responsibility to conserve marine mammals, with management vested in the Department of Commerce [National Marine Fisheries Service] for cetaceans and pinnipeds other than walrus. The Department of the Interior [USFWS] is responsible for all other marine mammals, including sea otter, walrus, polar bear, dugong, and manatee. The MMPA generally assigns identical responsibilities to the Secretaries of the two departments.

The MMPA is the main regulatory vehicle that protects marine mammal species and their habitats in an effort to maintain sustainable populations. In doing so, the MMPA outlines prohibitions, required permits, criminal and civil penalties, and international aspects in addressing marine mammals. The MMPA requires consultation on any action that may adversely affect marine mammals and provides a mechanism for an "incidental" take of species not listed under the FESA. "Take" is defined as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal" (16 USC 1362) and further defined by regulation (50 CFR 216.3) as "to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect, or kill any marine mammal".

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act requires consultation with the USFWS and the fish and wildlife agencies of States where the "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted or otherwise controlled or modified" by any agency under a federal permit or license. Consultation is to be undertaken for the purpose of "preventing loss of and damage to wildlife resources."

Los Angeles County General Plan Significant Ecological Area Program

The County of Los Angeles established Significant Ecological Areas (SEAs) in 1976 in order to designate areas with irreplaceable biological resources. Cumulatively, the 21 SEAs and 9 Coastal Resource Areas (CRAs) represent the wide-ranging biodiversity of Los Angeles County and contain its most important biological resources. Individual SEAs include undisturbed or lightly disturbed habitat that support valuable and threatened species, linkages and corridors that facilitate species movement, and are sized to support sustainable populations of its component species. CRAs are located within the coastal zone and include biological resources equal in significance to SEAs. Protection of these areas must ultimately be determined by the CCC.

As identified in the County of Los Angeles General Plan as amended, the project site is partially located within the Ballona Wetlands CRA. This area is a CRA because it contains habitat that hosts breeding for the federally-listed endangered least Bell's vireo; biotic communities, vegetative associations, and habitat of plant and animal species that are unique and are restricted in distribution in the County and regionally; and concentrated breeding, feeding, resting, and migrating grounds, which are limited in availability in the County; and biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community.

Environmental Setting

The project site is located between the communities of Marina del Rey, Del Rey, and Playa Vista in the City of Los Angeles, Los Angeles County, California1-1). The limits of disturbance for the Project's alternatives occurs primarily within existing State and City right-of-way areas; however, portions of the project site are within and adjacent to the BWER. CDFW manages the entire BWER and owns most of the 566-acre BWER, with a 24-acre portion owned by the California State Lands Commission (CSLC). The areas that would be impacted by the Project's alternatives are owned by CDFW. The project site includes the portion of SR-1/Lincoln Boulevard that crosses Ballona Creek between the intersections with Fiji Way to the north and West Jefferson Boulevard to the south. It also includes a portion of Culver Boulevard that intersects with SR-1/Lincoln Boulevard. The project site occurs on the USGS' Venice 7.5-minute topographic quadrangle of the San Bernardino Meridian at Township 02 South, Range 15 West, Sections 22, 23, 26, and 27. The physical extent of the project site is described in more detail in Chapter 2, Proposed Project, of the Project's NES.

The project site is in the South Coast subregion of the California Floristic Province, which extends along the Pacific Coast from Point Conception to Mexico (Jepson Flora Project 2019). It is similar to the North Coast and Central Coast subregions of the Northwestern and Central

Western regions but is hotter and drier. It extends inland to the San Gorgonio Pass in the City of Banning, which represents the boundary between the California Floristic Province and the Desert Province. Coastal dunes, sage scrub, and chaparral vegetation characterized this subregion prior to urbanization.

The project site is located in the 128-square mile Ballona Creek sub-watershed (Hydrologic Unit Code 12 18070104003). The headwaters of this watershed are located in the Santa Monica Mountains to the north and the Baldwin Hills to the south. The urbanized areas account for 80 percent of the watershed area and the partially developed foothills and mountains (Santa Monica Mountains) make up the remaining 20 percent. While some of the headwaters remain in their natural form, the majority of the drainage network has been modified into storm drains, underground culverts, and open concrete channels to provide drainage and flood management.

Ballona Creek runs through the center of the project site flowing east to west where it discharges into Marina Del Rey's south entrance channel and Santa Monica Bay. It is an open, trapezoidal channel from the intersection of Venice Boulevard and Pickford Street to its mouth at the Santa Monica Bay. Within the project site, Ballona Creek contains water throughout the year and has concrete-lined side slopes with a soft-bottom channel with widths varying from 80 to 200 feet and depths varying from 19 to 23 feet from the top of the levee. The freshwater marsh in the southern portion of the project site was created as part of a restoration effort that occurred between 2001 and 2003. Also, two unnamed blueline streams also occur in the southwest corner of the project site.

Topography in the project site is generally flat with minor slopes along paved roads. Elevation ranges from sea level to approximately 31 feet above mean sea level (msl). The following soil types have been mapped in the project site: Urban land, 0 to 2 percent slopes, dredged fill substratum; Urban land-Typic Xerorthents, dredged spoil complex, 0 to 2 percent slopes; and Typic Fluvaquents-Typic Xerorthents, dredged spoil complex, 0 to 1 percent slopes. The parent material consists of dredge spoils and/or human-transported material over mixed alluvium. Of these soils, the Typic Fluvaquents-Typic Xerorthents are listed as hydric on the National Hydric Soils List for the Los Angeles County, California, Southeastern Part soil survey area (USDA NRCS 2017).

Existing Vegetation Communities

A Biological Survey Area (BSA) was established to evaluate existing biological resources within the project site, which is depicted in Figure 2.3.1-1. The BSA includes the direct impact footprint for Alternative 2 and an adjacent 500-foot buffer. The following vegetation communities and other landcovers were mapped in the project site: California sagebrush scrub, coyote brush scrub,

Biological Survey Area

State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project

7-LA-1, PM 30.16/30.74

EA 07-33880

Aerial Source: Esri, Maxar 2022

Caltrans

Figure 2.3.1-1

degraded coyote brush scrub, laurel sumac scrub, Menzies' golden bush scrub, quailbush scrub, annual brome grassland, cudweed stand, hyssop-leaved *Bassia* stand, semi-natural herbaceous stand, upland mustards, alkali weed playa, annual beard grass – bristly ox-tongue grassland, California bulrush marsh, cattail marsh, pickleweed mat, arroyo willow thicket, mulefat thicket, developed landcover, open water, and parks and landscaping as depicted in Figure 2.3.1-2. Table 2.3.1-1 provides a "crosswalk" of the vegetation classification used by Psomas to the vegetation types provided in the Draft EIR prepared for the Ballona Wetlands Restoration Project. A description of each vegetation community or other landcover observed in the project site is provided below.

Table 2.3.1-1 – Vegetation Types and Other Areas in the Biological Study Area

Psomas Mapping Based on CNPS	Classification Used in (CDFW 2017a)	Amount in the BSA* (acres)	Sensitive Natural Community[a]
California Sagebrush Scrub	Coastal Scrub	3.533	No
Coyote Brush Scrub	Coastal Scrub	4.485	No
Degraded Coyote Brush Scrub	Coastal Scrub (some areas mapped as Stabilized Dune in the EIS/EIR)	2.637	No
Laurel Sumac Scrub	Coastal Scrub	1.265	No
Menzies's Golden Bush Scrub	Coastal Scrub	2.158	Yes
Quailbush Scrub	Saltbush Scrub	4.145	No
Annual Brome Grassland	Annual Grassland (some areas mapped as Invasive Monoculture in the EIS/EIR)	0.493	No
Cudweed Stand	Annual Grassland	0.874	No[b]
Hyssop-Leaved Bassia Stand	Disturbed Non-tidal Marsh	3.056	No[b]
Semi-Natural Herbaceous Stand	Invasive Monoculture	4.646	No
Upland Mustards	Invasive Monoculture	24.872	No
Alkali Weed Playa	Non-tidal Salt Marsh	1.108	Yes
Annual Beard Grass – Bristly Ox-tongue Grassland	Non-tidal Salt Marsh and Disturbed Non-tidal Marsh	2.682	No[b]
California Bulrush Marsh	not mapped in the EIS/EIR	0.689	Yes
Cattail Marsh	not mapped in the EIS/EIR	0.313	No
Pickleweed Mat	Non-tidal Salt Marsh and Disturbed Non-tidal Marsh	1.196	Yes
Arroyo Willow Thicket	Willow/Mulefat Thicket	2.039	Yes
Mulefat Thicket	Willow/Mulefat Thicket	0.685	No
Developed	Developed	56.015	No

Table 2.3.1-1 – Vegetation Types and Other Areas in the Biological Study Area

Psomas Mapping Based on CNPS	Classification Used in (CDFW 2017a)	Amount in the BSA* (acres)	Sensitive Natural Community[a]
Open Water	Open Water	9.268	No
Parks and Landscaping	Developed	5.650	No
Total		**131.809**	

EIS/EIR: *Draft Ballona Wetlands Restoration Project EIS/EIR State Clearinghouse No. 2012071090* .
[a] Sensitivity based on the CDFW California Natural Community List.
[b] Not a named vegetation Alliance or Association in CNPS. Not considered to have special status because the dominant or characteristic species is/are not special status plant species.
* Biological Survey Area (BSA) – The BSA includes all areas of potential direct impacts (temporary and permanent impacts) for Alternative 2 plus an adjacent 500-foot buffer around all permanent impact areas for potential indirect effects. The BSA has a total area of approximately 131.809 acres.
Source: Psomas 2024b.

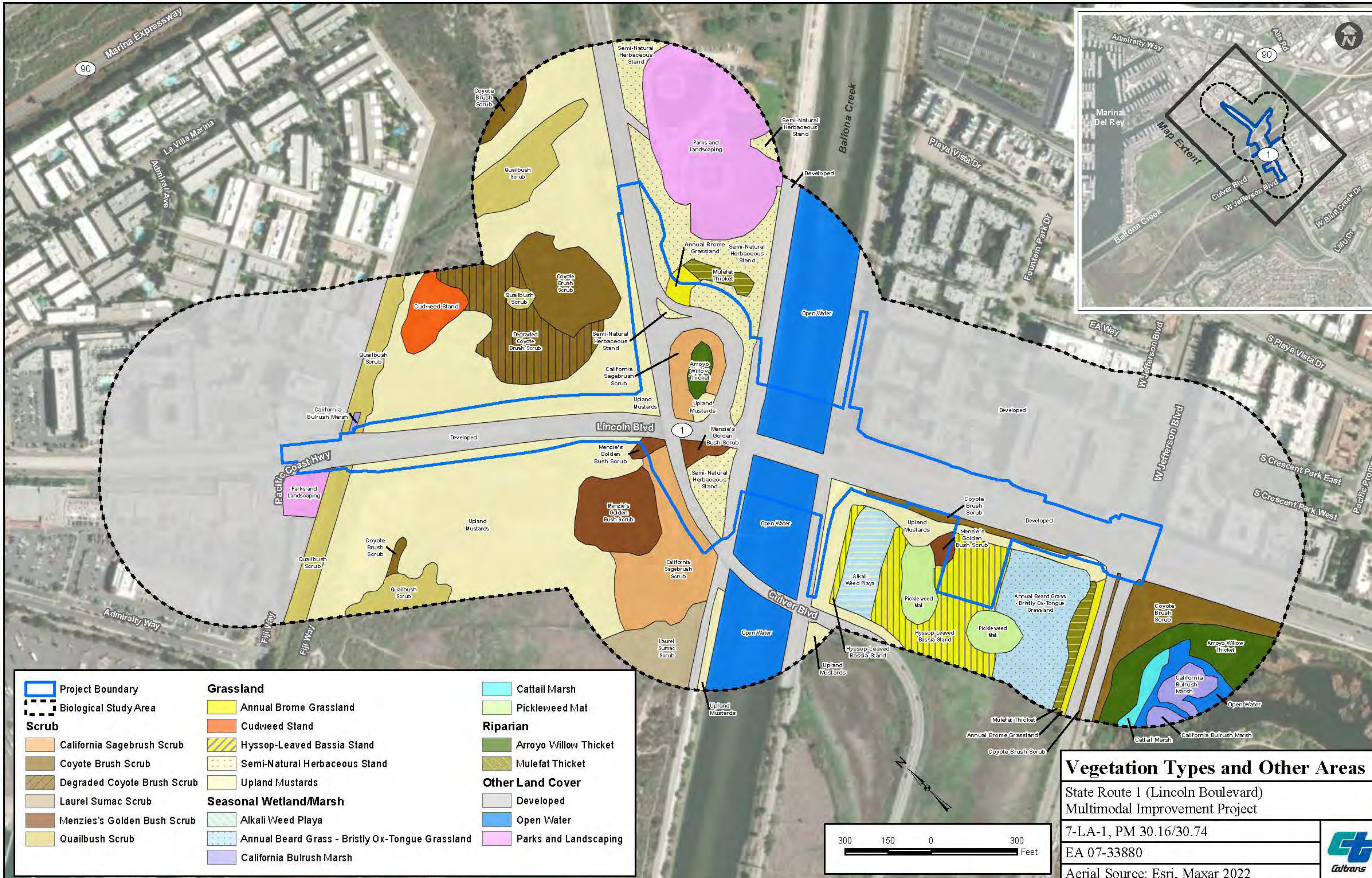
Scrub Communities

Scrub communities occur in upland areas of the project site. This vegetation is characterized by low to moderate-sized, often drought-deciduous shrubs (e.g., California sagebrush [*Artemisia californica*]) with some larger, emergent, sclerophyllous shrubs (e.g., laurel sumac [*Malosma laurina*]).

California Sagebrush Scrub

California sagebrush scrub (3.533 acres) occurs north of the Culver Boulevard Bridge and surrounding the basin within the connector of Culver Boulevard and SR-1/Lincoln Boulevard. This community is. dominated by California sagebrush in the shrub layer. The patch north of Culver Boulevard is co-dominated by Menzies’ coastal goldenbush (*Isocoma menziesii* var. *menziesii*), with a small amount of laurel sumac in the shrub layer. The herbaceous layer is dominated by black mustard (*Brassica nigra*) along with lesser amounts of crown daisy (*Glebionis coronaria*) and petty spurge (*Euphorbia peplus*). The small patch of California sagebrush scrub surrounded by the SR-1/Lincoln Boulevard and Culver Boulevard loop has a greater assemblage of native shrub species such as laurel sumac, leafy California buckwheat (*Eriogonum fasciculatum* var. *foliolosum*), mule fat (*Baccharis salicifolia*), and coyote brush (*Baccharis pilularis* ssp. *consanguinea*).

This on-site community is consistent with the *Artemisia californica* Association provided by CNPS and can be cross-referenced to the coastal scrub classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project. Most of the California sagebrush scrub in the BSA was mapped as coastal scrub in in the Draft EIR prepared for the Ballona Wetlands Restoration Project, which includes California sagebrush as a dominant species. However, some areas were mapped as invasive monoculture or stabilized dune. In the case of the former, the



Project Boundary
Biological Study Area
Scrub
California Sagebrush Scrub
Coyote Brush Scrub
Degraded Coyote Brush Scrub
Laurel Sumac Scrub
Menzies's Golden Bush Scrub
Quailbush Scrub
Grassland
Annual Brome Grassland
Cudweed Stand
Hyssop-Leaved Bassia Stand
Semi-Natural Herbaceous Stand
Upland Mustards
Seasonal Wetland/Marsh
Alkali Weed Playa
Annual Beard Grass - Bristly Ox-Tongue Grassland
California Bulrush Marsh
Cattail Marsh
Pickleweed Mat
Riparian
Arroyo Willow Thicket
Mulefat Thicket
Other Land Cover
Developed
Open Water
Parks and Landscaping
300 150 0 300 Feet
Vegetation Types and Other Areas
State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project
7-LA-1, PM 30.16/30.74
EA 07-33880
Aerial Source: Esri, Maxar 2022
Caltrans
Lincoln Blvd
Pacific Coast Hwy
Culver Blvd
Ballona Creek
Marina Expressway
Admiralty Way
Fiji Way
W Jefferson Blvd
Playa Vista Dr
Fountain Park Dr
S Playa Vista Dr
EA Way
S Crescent Park East
S Crescent Park West
Pacific Promenade
La Villa Marina
Admiral Ave
Marina Del Rey
Map Extent
Alla Rd
W Bluff Creek Dr
LMU Dr

Figure 2.3.1-2

difference in classification between in the Draft EIR prepared for the Ballona Wetlands Restoration Project and the current mapping effort is likely the result of changes in vegetative cover over time, seasonal timing of the surveys, or surveyor interpretation of the community. In the case of the latter, the area in question is composed of fill material that was excavated from the area to the north during the construction of the Marina del Rey Harbor. At one time, this area may have supported sand dunes; however, this landform does not currently resemble a stabilized sand dune. Vegetation is composed of coastal sage scrub species that are not characteristic of dune habitats. In addition, the substrate is relatively gravelly and compacted.

Coyote Brush Scrub

Coyote brush scrub (4.485 acres) occurs in in a patch in the northern portion of the BSA and around the freshwater marsh in the southern portion of the BSA. This community is dominated by coyote brush in the shrub layer. California sagebrush, laurel sumac, California encelia (*Encelia californica*), and mule fat co-occur in lower cover; however, their presence is sporadic and not present in every stand of coyote brush scrub. The herbaceous layer is comprised of a number of species such as variable burclover (*Medicago polymorpha*), petty spurge, black mustard, Geraldton carnation weed (*Euphorbia terracina*), and pleasant-scented cudweed (*Pseudognaphalium beneolens*).

This on-site community is consistent with the *Baccharis pilularis* Association provided by CNPS and can be cross-referenced to the coastal scrub classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project. Most of the coyote brush scrub in the BSA was mapped as coastal scrub in the Draft EIR prepared for the Ballona Wetlands Restoration Project, which includes coyote brush as a dominant species. However, the strip along SR-1/Lincoln Boulevard was included with the adjacent invasive monoculture, disturbed non-tidal marsh, and saltbrush scrub vegetation types. This is likely due to surveyor interpretation of the narrow strip of vegetation and differences in minimum mapping unit.

Degraded Coyote Brush Scrub

Degraded coyote brush scrub (2.637 acres) occurs adjacent to coyote brush scrub in the northern portion of the BSA. This community is dominated by coyote brush in the shrub layer with almost no co-occurring shrub species. The herbaceous layer is comprised of a relatively high cover of non-native species such as variable burclover, petty spurge, black mustard, and Geraldton carnation weed. This community is considered “degraded” because it has at least three times as much non-native cover as native cover.

This on-site community is consistent with a degraded form of the *Baccharis pilularis* Association provided by CNPS and can be cross-referenced to the coastal scrub classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project. The Draft EIR prepared for the Ballona Wetlands Restoration Project mapped this area as a combination of coastal scrub, annual grassland, invasive monoculture, and stabilized dune. This is likely due to changes in vegetation cover over time and differences in minimum mapping unit and surveyor interpretation of the community.

Laurel Sumac Scrub

Laurel sumac scrub (1.265 acres) occurs along the eastern edge of the BSA north of Ballona Creek. This community is dominated laurel sumac in the shrub layer with lower cover of Menzies' coastal goldenbush. The herbaceous layer is dominated by black mustard with lesser amounts of petty spurge and common horehound (*Marrubium vulgare*).

This on-site community is consistent with the *Malosma laurina* Association provided by CNPS and can be cross-referenced to the coastal scrub classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project. The laurel sumac scrub in the BSA was mapped as coastal scrub in the Draft EIR prepared for the Ballona Wetlands Restoration Project, which includes laurel sumac as a dominant species.

Menzies's Golden Bush Scrub

Menzies's golden bush scrub (2.158 acres) occurs in patches in the center of the BSA north of Culver Boulevard and in a small patch south of Ballona Creek. This community is dominated by Menzies' coastal goldenbush in the shrub layer with lower cover of laurel sumac. The herbaceous layer is dominated by black mustard, petty spurge, crown daisy, and patches of freeway ice plant (*Carpobrotus edulis*). Menzie's golden bush scrub is a sensitive natural community.

This on-site community is consistent with the *Isocoma menziesii* Association provided by CNPS and can be cross-referenced to the coastal scrub classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project. Most of the Menzies's golden bush scrub in the BSA was mapped as coastal scrub in the Draft EIR prepared for the Ballona Wetlands Restoration Project, though Menzies' coastal goldenbush is not listed as a dominant species of coastal scrub. The patch north of Culver Boulevard was mapped as invasive monoculture, likely the result of a change in vegetation over time.

Quailbush Scrub

Quailbush scrub (4.145 acres) occurs along the blueline stream and in a patch surrounded by coyote brush scrub in the northern portion of the BSA. This community is dominated by big saltbush (*Atriplex lentif-ormis*) in the shrub layer with a lower cover of black mustard and crown daisy in the herbaceous layer. Pacific pickleweed (*Salicornia pacifica*) is also present in the portion of quailbush scrub in the northwest corner of the BSA.

This on-site community is consistent with the *Atriplex lentiformis* Association provided by CNPS and can be cross-referenced to the saltbrush scrub classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project. Most of the quailbush scrub mapped in the BSA was mapped as saltbrush scrub i in the Draft EIR prepared for the Ballona Wetlands Restoration Project, though the EIS/EIR mapping was at a finer scale along the blueline stream and mapped some areas as marsh.

Grassland/Ruderal Communities

Grassland/ruderal communities are dominated by grasses, forbs, and herbs. While some areas consist of native vegetation, other areas are primarily composed of non-native, weedy plant species that may be invasive.

Annual Brome Grassland

Annual brome grassland (0.493-acre) occurs in a small patch adjacent to Culver Boulevard and along West Jefferson Boulevard. This community is dominated by ripgut grass (*Bromus diandrus*) in the herbaceous layer. Other non-native, weedy species occurring at lower cover include Geraldton carnation weed, redstem filaree (*Erodium cicutarium*), and sourclover (*Melilotus indicus*).

This on-site community is consistent with the *Bromus diandrus* – mixed herbs Association provided by CNPS and can be cross-referenced to the annual grassland classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project. The patch adjacent to Culver Boulevard was mapped as invasive monoculture in the Draft EIR prepared for the Ballona Wetlands Restoration Project, while the strip along West Jefferson Boulevard was included with the adjacent disturbed non-tidal marsh. This is likely due to changes in vegetation over time and surveyor interpretation of the narrow strip of vegetation and differences in minimum mapping unit.

Cudweed Stand

Cudweed stand (0.874-acre) occurs as a single patch in the northern portion of the BSA. This community is dominated by pleasant-scented cudweed in the herbaceous layer with lower cover of small-flowered camissoniopsis (*Camissoniopsis micrantha*) and sparse tocalote (*Centaurea melitensis*). Small patches of coyote brush and California sagebrush occur along the margin of this community. As this community is dominated by native herbaceous species, the ground cover can be variable as it relates to dominance depending on the time of year. Pleasant-scented cudweed was observed to be the dominant species during the initial vegetation mapping effort in March 2017 and during the last special status plant survey in late June 2017. Given that pleasant-scented cudweed can persist in the environment beyond a single growing season, the plant community is being named for this species. The amount of bare ground is also variable within this community based on the season.

This community is not defined by CNPS, meaning that no named Alliance is dominated or characterized by this species. This patch was mapped as annual grassland in the Draft EIR prepared for the Ballona Wetlands Restoration Project. However, grasses were not a major component of the vegetation. To be considered a grassland by CNPS, the relative cover of grasses in the herbaceous layer would be between 50 and 80 percent.

Hyssop-leaved Bassia Stand

Hyssop-leaved Bassia stand (3.056 acres) occurs over a large portion of the flat playa south of Ballona Creek. It is co-dominated by hyssop-leaved Bassia and sourclover in the herb layer, with lesser amounts of alkali-mallow (*Malvella leprosa*) and saltmarsh sand spurrey (*Spergularia marina*). It is included with the grassland/ruderal vegetation types instead of the seasonal wetland/marsh communities because hyssop-leaved Bassia is a facultative upland species and not a wetland species.

This community is not defined by CNPS, meaning that no named Alliance is dominated or characterized by this species. It contains some species found in the alkali weed–salt grass playa and sink classification but does not meet the membership rule of having abundant alkali weed (*Cressa truxillensis*), swamp prickle grass (*Crypsis schoenoides*), or salt grass (*Distichlis spicata*). This patch was mapped as disturbed non-tidal marsh in the Draft EIR prepared for the Ballona Wetlands Restoration Project, which includes hyssop-leaved Bassia as a dominant species.

Semi-natural Herbaceous Stand

Semi-natural herbaceous stands (4.646 acres) occur between Culver Boulevard and Ballona Creek. This community is defined by a number of non-native herbaceous species with no single species dominant. Species present include redstem filaree, black mustard, variable burclover, crown daisy, red brome, and petty spurge. These species are intermixed in varying relative cover, with no individual species comprising more than 15 percent cover.

This community is not defined by CNPS. It would be functionally equivalent to other stands strongly dominated by annual or short-lived non-native plants, such as upland mustards and annual brome grassland, but is not classified as such due to the diversity of species. This patch was mapped as invasive monoculture in the Draft EIR prepared for the Ballona Wetlands Restoration Project, which is dominated by a variety of non-native species.

Upland Mustards

Upland mustards (24.872 acres) occur across much of the area north of Culver Boulevard and bordering the playa south of Ballona Creek. This community is dominated by black mustard in the herbaceous layer with lower cover of crown daisy, radish (*Raphanus sativus*), petty spurge, and common castor bean (*Ricinus communis*). Isolated patches of California sagebrush and coyote brush occur with cover of less than five percent. A moderate amount of bare ground is present in some patches of upland mustard, though the mustard cover is relatively dense overall.

This on-site community is consistent with the *Brassica nigra* Association provided by CNPS and can be cross-referenced to the invasive monoculture classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project. Black mustard is not listed as a dominant species in invasive monoculture in the Draft EIR prepared for the Ballona Wetlands Restoration Project; it is assumed that black mustard has spread and dominated the landscape since the original surveys or was especially abundant during the current surveys due to above normal precipitation.

Seasonal Wetland/Marsh Communities

The seasonal wetlands and marsh communities in the BSA are located in areas of depressional topography or historical or restored marshes. Areas with higher concentrations of salt (e.g., alkaline soils) contain halophytic (e.g., “salt-loving”) plant species while areas of low salinity contain plant species associated with freshwater conditions.

Alkali Weed Playa

Alkali weed playa (1.108 acres) occurs at the northern end of the playa south of Ballona Creek. This community is dominated almost exclusively by alkali weed (*Cressa truxillensis*). Species such as hyssop-leaved Bassia, black mustard, and bristly ox-tongue co-occur at low cover. Alkali weed playa is a sensitive natural community.

This on-site community is consistent with the *Cressa truxillensis* Association provided by CNPS. It can be cross-referenced to the non-tidal salt marsh classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project, which includes alkali weed as a dominant species.

Annual Beard Grass – Bristly Ox-Tongue Grassland

Annual beard grass – bristly ox-tongue grassland (2.682 acres) occurs at the southern end of the playa south of Ballona Creek. This community is co-dominated by annual beard grass and bristly ox-tongue, with a total cover of 80 percent or higher, depending on the patch. Other species, such as sourclover, alkali weed, and saltmarsh sand-spurrey, also occur at low cover.

This community is not defined by CNPS. It contains some species found in the alkali weed–salt grass playa and sink classification but does not meet the membership rule of having abundant alkali weed, swamp prickle grass (*Crypsis schoenoides*), or salt grass (*Distichlis spicata*). This patch was mapped as non-tidal salt marsh and disturbed non-tidal marsh in the Draft EIR prepared for the Ballona Wetlands Restoration Project, the latter of which includes bristly ox-tongue as a dominant species.

California Bulrush Marsh

California bulrush marsh (0.689-acre) occurs along the blueline stream in the northern portion of the BSA and as islands of vegetation in the freshwater marsh in the southern portion of the BSA. This vegetation type is dominated almost exclusively by southern bulrush (*Schoenoplectus californicus*). The portion of California bulrush marsh in the northern portion of the BSA has a low cover of big saltbush. California bulrush marsh is a sensitive natural community.

This on-site community is consistent with the *Schoenoplectus californicus* Association provided by CNPS. The patches of California bulrush marsh in the BSA were not mapped in the Draft EIR prepared for the Ballona Wetlands Restoration Project. While the Draft EIR prepared for the Ballona Wetlands Restoration Project includes descriptions of tidal, brackish, and nontidal salt marshes, it does not include a freshwater marsh classification.

Cattail Marsh

Cattail marsh (0.313-acre) occurs at the edge of open water in the freshwater marsh in the southern portion of the BSA. This vegetation type is dominated exclusively by southern cattail (*Typha* cf. *domingensis*).

This on-site community is consistent with the *Typha domingensis* Association provided by CNPS. The patches of cattail marsh in the BSA were not mapped in the Draft EIR prepared for the Ballona Wetlands Restoration Project. While the Draft EIR prepared for the Ballona Wetlands Restoration Project includes descriptions of tidal, brackish, and nontidal salt marshes, it does not include a freshwater marsh classification.

Pickleweed Mat

Pickleweed mat (1.196 acres) occurs in patches in the playa south of Ballona Creek. This community is dominated by Pacific pickleweed, with lower cover of species such as alkali-mallow, saltmarsh sand-spurrey, and sourclover. Pickleweed mat is a sensitive natural community.

This on-site community is consistent with the *Salicornica pacifica* tidal Association provided by CNPS. It can be cross-referenced to the non-tidal salt marsh and disturbed non-tidal marsh classification used in the Draft EIR prepared for the Ballona Wetlands Restoration Project, the former of which includes pickleweed as a dominant species.

<u>Riparian Communities</u>

Riparian areas are typically associated with natural watercourses or waterbodies. Riparian vegetation in the BSA is dominated by shrubby species such as arroyo willow (*Salix lasiolepis*) and mule fat.

Arroyo Willow Thicket

Arroyo willow thicket (2.039 acres) occurs along the margins of the freshwater marsh in the southern portion of the BSA and in the basin within the cloverleaf intersection of Culver Boulevard and SR-1/Lincoln Boulevard. This community is dominated by arroyo willow in the upper layer with a lower cover of mule fat and Hinds' willow (*Salix exigua* var. *hindsiana*) in the shrub layer. The herbaceous layer contains species such as mugwort (*Artemisia douglasiana*), English plantain (*Plantago lanceolata*), ripgut grass, and southern bulrush (*Schoenoplectus californicus*). Arroyo willow thicket is a sensitive natural community.

This on-site community is consistent with the *Salix lasiolepis* Association provided by CNPS. The patches of arroyo willow thicket in the BSA were not mapped in the Draft EIR prepared for the Ballona Wetlands Restoration Project; however, they could be cross-referenced to willow-mulefat thicket.

Mulefat Thicket

Mulefat thicket (0.685-acre) occurs in a low point in the landscape between Culver Boulevard and Ballona Creek and along West Jefferson Boulevard. This community is dominated by mulefat in the shrub layer along with some isolated patches of big saltbush. Ripgut grass and Geraldton carnation weed comprise most of the herbaceous layer.

This on-site community is consistent with the *Baccharis salicifolia* Association provided by CNPS. It can be cross-referenced to the willow-mulefat thicket classification used in the Draft

EIR prepared for the Ballona Wetlands Restoration Project. The northern patch of mulefat was mapped willow-mulefat thicket in the EIS/EIR; however, the strip along SR-1/Lincoln Boulevard was included with the adjacent disturbed non-tidal marsh vegetation type. This is likely due to surveyor interpretation of the narrow strip of vegetation and differences in minimum mapping unit.

<u>Other Landcover</u>

Areas lacking vegetation or consisting exclusively of ornamental plantings and landscaping are considered “other landcover”.

Developed

Much of the project site consists of developed lands (56.015 acres), which occur primarily at the northern and southeastern ends of the BSA, though also crossing areas of vegetation. This landcover includes all areas that have been graded and built upon with hard, impermeable surfaces such as roads, buildings, and sidewalks. Ornamental vegetation closely associated with these structures is included in this landcover.

CNPS does not include a classification of unvegetated areas. Most of these areas were excluded from the mapping in the Draft EIR prepared for the Ballona Wetlands Restoration Project; however, the lined banks of Ballona Creek were considered developed.

Open Water

Open water (9.268 acres) occurs in the Ballona Creek channel and the freshwater marsh at the southern end of the BSA. This landcover includes all areas of standing or flowing water that are not vegetated.

CNPS does not include a classification of unvegetated areas. Some of these areas were excluded from the mapping in the Draft EIR prepared for the Ballona Wetlands Restoration Project; however, Ballona Creek was considered open water.

Parks and Landscaping

Parks and landscaping (5.650 acres) occur northwest of the intersection of SR-1/Lincoln Boulevard and Fiji Way and on the ball fields between Culver Boulevard and Ballona Creek. This landcover includes areas that are dominated by non-native, ornamental species, such as turf grass (*Festuca* sp.), fountain grass (*Pennisetum* sp.), and African iris (*Dietes* sp.). These areas are manicured and maintained in an artificial manner. Small artificial structures, such as light fixtures, fencing, and abandoned buildings have not been mapped separately.

CNPS does not include a classification of parks and manicured areas. The ball fields were included with developed landcover in the Draft EIR prepared for the Ballona Wetlands Restoration Project.

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Alternative 1 would involve no vegetation removal, grading, or other ground disturbing activities; therefore, Alternative 1 would result in no short-term effects to natural communities.

Operational Effects

Alternative 1 would have no operational effects related to natural communities.

Cumulative Effects

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to natural communities.

Alternative 2 – Base Alternative

Construction Effects

The effects of Alternative 2 on vegetation types and other areas are summarized in Table 2.3.1-2 and are depicted in Figure 2.3.1-3. Alternative 2 would result in temporary effects to vegetation communities associated with construction access, storage, staging, and grading. These areas would be re-planted with native plant species in consultation with each property owner.

Temporary impacts within Ballona Creek would be required to demolish the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek, and for access and staging needed to construct a replacement bridge over Ballona Creek.

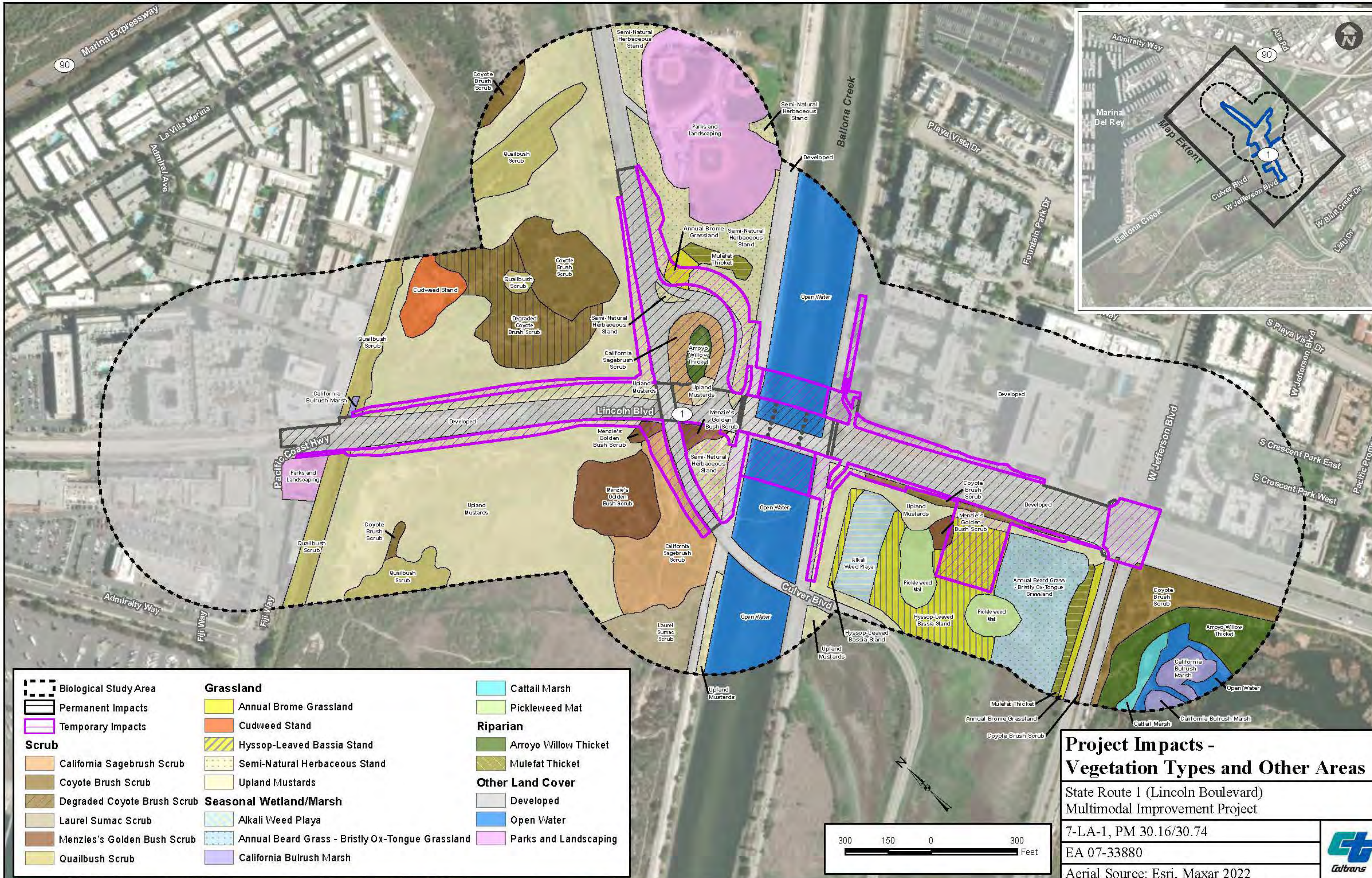

Project Impacts -
Vegetation Types and Other Areas
State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project
7-LA-1, PM 30.16/30.74
EA 07-33880
Aerial Source: Esri, Maxar 2022
Biological Study Area
Permanent Impacts
Temporary Impacts
Scrub
California Sagebrush Scrub
Coyote Brush Scrub
Degraded Coyote Brush Scrub
Laurel Sumac Scrub
Menzies's Golden Bush Scrub
Quailbush Scrub
Grassland
Annual Brome Grassland
Cudweed Stand
Hyssop-Leaved Bassia Stand
Semi-Natural Herbaceous Stand
Upland Mustards
Seasonal Wetland/Marsh
Alkali Weed Playa
Annual Beard Grass - Bristly Ox-Tongue Grassland
California Bulrush Marsh
Cattail Marsh
Pickleweed Mat
Riparian
Arroyo Willow Thicket
Mulefat Thicket
Other Land Cover
Developed
Open Water
Parks and Landscaping
300 150 0 300
Feet
Marina Expressway
La Villa Marina
Admiral Ave
Ballona Creek
Playa Vista Dr
Fountain Park Dr
Lincoln Blvd
Pacific Coast Hwy
Culver Blvd
W Jefferson Blvd
S Playa Vista Dr
S Crescent Park East
S Crescent Park West
Pacific Promenade
Admiralty Way
Fiji Way
Admiralty Way
Alla Rd
Marina Del Rey
Map Extent
W Bluff Creek Dr
LMU Dr
Caltrans

Figure 2.3.1-3

Table 2.3.1-2 – Vegetation Types and Other Areas that would be Impacted by Alternative 2

Vegetation Types and Other Areas	Existing (acres)	Permanent Impact/ Structural (acres)	Permanent Impact/Shade (acres)	Temporary Impact (acres)	Total Impact (acres)
Scrub Communities	-	-	-	-	-
California Sagebrush Scrub	3.533	0.835	0.000	0.381	1.216
Coyote Brush Scrub	4.485	0.042	0.000	0.248	0.290
Degraded Coyote Brush Scrub	2.637	0.000	0.000	0.000	0.000
Laurel Sumac Scrub	1.265	0.000	0.000	0.000	0.000
Menzies's Golden Bush Scrub	2.158	0.016	0.000	0.297	0.313
Quailbush Scrub	4.145	0.004	0.000	0.031	0.035
Grassland Communities	-	-	-	-	-
Annual Brome Grassland	0.493	0.015	0.000	0.131	0.146
Cudweed Stand	0.874	0.000	0.000	0.000	0.000
Hyssop-Leaved Bassia Stand	3.056	0.000	0.000	0.952	0.952
Semi-Natural Herbaceous Stand	4.646	0.200	0.000	1.564	1.764
Upland Mustards	24.872	1.215	0.000	1.918	3.133
Seasonal Wetland/Marsh Communities	-	-	-	-	-
Alkali Weed Playa	1.108	0.000	0.000	0.000	0.000
Annual Beard Grass-Bristly Ox-tongue Grassland	2.682	0.000	0.000	0.000	0.000
California Bulrush Marsh	0.689	0.001	0.000	0.002	0.002
Cattail Marsh	0.313	0.000	0.000	0.000	0.000
Pickleweed Mat	1.196	0.000	0.000	0.000	0.000
Riparian Communities	-	-	-	-	-
Arroyo Willow Thicket	2.039	0.286	0.000	0.000	0.286
Mulefat Thicket	0.685	0.000	0.000	0.000	0.000
Other Landcover	-	-	-	-	-
Developed	56.015	9.467	0.000	2.654	12.111
Open Water	9.268	0.007**	0.731*	2.130	2.868
Parks and Landscaping	5.650	0.000	0.000	0.009	0.009
Total	**131.809**	**12.087**	**0.731**	**10.317**	**23.135**

* This impact represents the footprint of the new bridge over open water. The area will also be temporarily impacted for construction access. There will be no permanent loss of open water in this area – these areas of Ballona Creek would just be shaded. Existing shaded areas have not been deducted from this calculation, so the actual increase in shading is less.

** Alternative 2 involves the replacement of the three existing bridge piers in Ballona Creek that support the existing bridge with two bridge piers to support the proposed replacement bridge. The permanent structural footprint within Ballona Creek would be less than the existing conditions.

Note: Tables may not add due to rounding.

Source: Psomas 2024b.

Alternative 2 would result in direct effects to vegetation communities in areas of the BSA where SR-1/Lincoln Boulevard would be widened and re-aligned, primarily on the east side of the existing SR-1/Lincoln Boulevard alignment north of Ballona Creek.

Alternative 2 would remove the existing four-span SR-1/Lincoln Boulevard Bridge over Ballona Creek as well as the three sets of piers/piles that support the existing bridge, which include 987 square feet of existing structural footprint within Ballona Creek. Alternative 2 would construct a new, wider SR-1/Lincoln Boulevard Bridge that would only have three spans. The structural supports for the replacement SR-1/Lincoln Boulevard Bridge in Ballona Creek would consist of two piers (each consisting of six, 66-inch diameter concrete piles) with no pier walls. By modifying the bridge from a four-span to a three-span structure and not constructing pier walls, Alternative 2 would reduce the amount of concrete and structural supports within Ballona Creek by approximately 701 square feet from 987 square feet in existing conditions to approximately 286 square feet, which represents a 71 percent reduction.

Permanent shading within Ballona Creek would increase with Alternative 2, which includes the replacement of a 64-foot-wide existing bridge structures with a new 130-foot-wide bridge structure. With the widened structure, Alternative 2 would result in 31,850 sf (0.7312 acres) of shading, which is an increase of 16,170 sf (0.3712 acres) from the 15,680 sf (0.3599 acres) of existing shading.

In addition to providing an inventory of special status plant and wildlife species, the CDFW also provides an inventory of vegetation types that are considered special status by the State and federal resource agencies, academic institutions, and various conservation groups. Special status vegetation types present in the BSA consist of Menzies's goldenbush scrub, alkali weed playa, California bulrush marsh, pickleweed mat, and arroyo willow thicket. These vegetation types are discussed below.

Additional focused surveys for special status plants are being conducted within the project site in the 2024 survey season. Additional information on the results of these surveys will be provided along with the Final EIR.

Also, as required by **MM BIO-5**, an updated focused plant survey shall be conducted no more than one year prior to the beginning of Project construction to identify any shifts in the locations of sensitive plants and vegetation communities. The locations of special status natural communities that are adjacent to the Project's temporary and permanent impact footprints will be delineated as ESAs on the Project's plans.

Menzies's Golden Bush Scrub

Approximately 2.158 acres of Menzies's golden bush scrub occur in the BSA. This vegetation Association is considered a sensitive natural community by the CDFW. This area may also be considered an ESHA by the CCC; the determination of what areas would be regulated as an ESHA would be made by the CCC as part of the CDP process.

Alternative 2 would impact 0.313 acre of Menzies's golden bush scrub (0.016 acre permanent, 0.297 acre temporary). This impact would be considered a substantial effect because it is a sensitive natural community and a potential ESHA.

To avoid and minimize effects, **MM BIO-1** through **MM BIO-5** would be implemented.

To mitigate for effects related to Menzie's golden bush scrub specifically, **MM BIO-6** would be implemented, which specifies minimum requirements to compensate for impacts to this vegetation community.

With implementation of **MM BIO-1** through **MM BIO-5** and **MM BIO-6**, Alternative 2 may affect, but not likely to adversely affect Menzie's golden bush scrub.

Alkali Weed Playa

Approximately 1.108 acres of alkali weed playa occur in the BSA. This vegetation Association is considered a sensitive natural community by the CDFW. This area may also be considered an ESHA by the CCC; the determination of what areas would be regulated as an ESHA would be made by the CCC as part of the CDP process.

Alternative 2 would not impact alkali weed playa in the BSA. Therefore, there would be no effect on this vegetation type.

To avoid the potential for effects related to alkali weed playa, **MM BIO-1** through **MM BIO-5** would be implemented. With incorporation of these avoidance and minimization measures, no mitigation would be required, and Alternative 2 would result in no substantial effect related to alkali weed playa.

California Bulrush Marsh

Approximately 0.689 acre of California bulrush marsh occurs in the BSA. This vegetation Association is considered a sensitive natural community by the CDFW. This area may also be considered an ESHA by the CCC; the determination of what areas would be regulated as an ESHA would be made by the CCC as part of the CDP process.

Alternative 2 would temporarily impact 0.002 acre of California bulrush marsh. This impact would be considered a substantial effect because it is a sensitive natural community and a potential ESHA.

To avoid and minimize effects, **MM BIO-1** through **MM BIO-5** would be implemented.

To mitigate for effects related to California bulrush marsh, **MM BIO-7** would be implemented, which specifies minimum requirements to compensate for impacts to this vegetation community.

With implementation of **MM BIO-1** through **MM BIO-5** and **MM BIO-7**, Alternative 2 may affect, but not likely to adversely affect California bulrush marsh.

Pickleweed Mat

Approximately 1.196 acres of pickleweed mat occur in the BSA. This vegetation Association is considered a sensitive natural community by the CDFW. This area may also be considered an ESHA by the CCC; the determination of what areas would be regulated as an ESHA would be made by the CCC as part of the CDP process for Alternative 2.

Alternative 2 would not result in any direct impacts to pickleweed mat. Therefore, there would be no effect on this vegetation type.

To avoid the potential for effects related to pickleweed mat, **MM BIO-1** through **MM BIO-5** would be implemented.

With incorporation of these avoidance and minimization measures, no mitigation would be required, and Alternative 2 would not affect pickleweed mat.

Arroyo Willow Thicket

Approximately 2.039 acres of arroyo willow thicket occurs in the BSA. This vegetation association is considered a sensitive natural community by the CDFW. This area may also be considered an ESHA by the CCC; the determination of what areas would be regulated as an ESHA would be made by the CCC as part of the CDP process.

Alternative 2 would permanently impact 0.286 acre of arroyo willow thicket. This impact would be considered adverse because it is a sensitive natural community and a potential ESHA.

To avoid and minimize effects, **MM BIO-1** through **MM BIO-5** would be implemented.

To mitigate for effects related to arroyo willow thicket, **MM BIO-8** would be implemented, which specifies that arroyo willow thicket removal be done by hand. Also, **MM BIO-9** would be implemented which specifies minimum requirements to compensate for impacts to this vegetation community.

With implementation of **MM BIO-1** through **MM BIO-5**, **MM BIO-8,** and **MM BIO-9**, Alternative 2 may affect but would not adversely affect arroyo willow thicket.

<u>Operational Effects</u>

Alternative 2 would have no operational effects related to natural communities. Permanent impacts to natural communities are described above under "Construction Effects".

<u>Cumulative Effects</u>

Alternative 2 would result in permanent removal of natural communities within the project site, including special status vegetation types including Menzies's golden bush scrub, California bulrush marsh, and arroyo willow thicket.

In addition to Alternative 2, the Ballona Wetlands Restoration Project would also result in impacts to special status vegetation types including *Arthrocnemum subterminale* (Parish's glasswort) alliance; *Anemopsis californica* (yerba mansa) alliance; *Bolboschoenus maritimus* (salt marsh bulrush) alliance; *Elymus* (=Leymus) *triticoides* (creeping wild rye) alliance; *Encelia californica—Artemisia californica* (California brittle bush – California sagebrush) association; *Frankenia salina* (alkali heath) alliance; *Lupinus chamissonis* (silver dune lupine) alliance; *Lupinus chamissonis—Ericameria ericoides* (silver dune lupine – mock heather) association; *Rhus integrifolia* (lemonade berry scrub) alliance; *Salicornia pacifica* (pickleweed) alliance; *Salix lasiolepis* (arroyo willow) alliance; and *Schoenoplectus americanus* (American bulrush) alliance.

The Draft EIR for the Ballona Wetlands Restoration Project determined that the Ballona Wetlands Restoration Project would result in temporary impacts during construction that would be mitigated, but that there would be long-term beneficial effects to special status vegetation types with implementation of Alternative 2.

No other cumulative projects would result in substantial effects to special status vegetation types.

Therefore, Alternative 2 and cumulative projects would not result in a substantial adverse effect related to special status vegetation types.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. Construction of Alternative 2A would not include the re-grading of areas beyond the edge of the future sidewalk at a 2:1 slope west of SR-1/Lincoln Boulevard at this location since a retaining wall would be built instead to avoid these impacts. These areas consist primarily of disturbed non-native stands of mustard in existing conditions, with a small patch of quailbush scrub, which would be re-planted with native plant species once construction work is completed. This would lead to improved biological conditions of these areas in the long-term with Alternative 2 that would not occur with Alternative 2A since Alternative 2A would not remove non-native invasive species in these areas and would not replant them with native species. In summary, Alternative 2A would result in fewer temporary construction impacts to the BWER and to vegetated areas, but Alternative 2A would not result in re-planting of a slope that is currently covered with non-native invasive grasses. Otherwise, Alternative 2A would result in the same construction effects related to natural communities as Alternative 2.

Operational Effects

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER and the west side of SR-1/Lincoln Boulevard north of Culver Boulevard. Alternative 2A would not result in the replanting of the slope west of SR-1/Lincoln Boulevard in the BWER with native plant species since this area would not be temporarily used during construction. Otherwise, the operational effects of Alternative 2A related to natural communities would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which contains a portion of the Fiji Ditch and the quailbush scrub vegetation community. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard which contains a portion of Fiji Ditch and California bulrush marsh and quailbush scrub vegetation communities. Given that California bulrush marsh is considered a sensitive natural community by the CDFW, Alternative 2B would result in reduced construction effects to sensitive natural communities when compared to Alternative 2.

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch and consists of quailbush scrub vegetation community. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard and contains a portion of Fiji Ditch and California bulrush marsh and quailbush scrub vegetation communities.

<u>Operational Effects</u>

Cumulative effects would be the same as for Alternative 2.

<u>Cumulative Effects</u>

Cumulative effects would be the same as for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and that are identified as open space land uses. There would be increased temporary construction effects to Menzie’s golden bush scrub and upland mustards vegetation communities. Menzie’s golden bush scrub is considered a sensitive natural community by the CDFW. Therefore, Alternative 2C would increase temporary construction effects related to a sensitive natural community.

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER that are identified as open space land uses. These areas contain Menzie’s golden bush scrub and upland mustards vegetation communities. Menzie’s golden bush scrub is considered a sensitive natural community by the CDFW.

<u>Operational Effects</u>

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would be the same as Alternative 2 with the exception that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900. Therefore, effects of Alternative 2D are covered below under Operational Effects.

Alternative 2D would require additional grading and permanent improvements within APN 4211-015-900 that would not be constructed under Alternative 2. This area is a part of the BWER and it currently contains semi-natural herbaceous stand and Menzie's golden bush scrub vegetation communities. Menzie's golden bush scrub is considered a sensitive natural community by the CDFW.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

- **MM BIO-1**: Prior to construction, highly visible barriers (e.g., orange construction fencing) shall be installed along the boundaries of the Project footprint to designate the limits of disturbance for the Project under the direction of a qualified biologist. No Project activity of any type shall be conducted outside of the Project's limits of disturbance. The City shall be responsible for ensuring that the protective barrier/fencing remains in place throughout construction and that it is removed upon completion of construction.

- **MM BIO-2**: A qualified biological monitor approved by USFWS and CDFW shall monitor construction activities for the duration of construction. The biological monitor shall monitor all vegetation clearing activities, work during the avian nesting season, work during measurable rain events, and during work within jurisdictional waters, and shall visit the project site on a weekly basis otherwise throughout construction. The biological monitor shall have the authority to temporarily stop and divert work in coordination with the contractor as needed to minimize impacts to biological resources and/or water quality and to prevent disturbance of habitat and special-status species within and adjacent to Project work areas to the extent practicable. The biological monitor shall inspect the ESA fencing and other construction best management practices (BMPs) associated with protecting plants and wildlife during each site visit and shall provide monitoring reports following each site visit to the City and Caltrans. The biological monitor shall work with Project construction staff during biological monitoring to salvage native wildlife species of low mobility that may be killed or injured prior to and during Project-related vegetation or ground disturbances. To the extent feasible, salvaged species shall be relocated to adjacent suitable habitat not subject to Project ground disturbance. Any non-native flora or fauna can be abated by the biologist through any legal means available. Ongoing monitoring and weekly reporting shall occur for the duration of the construction activity to document implementation of BMPs and mitigation measures, and to ensure that construction occurs within the temporary and permanent impact limits established in the Draft EIR/EA.
- **MM BIO-3**: Prior to construction, a Worker Environmental Awareness Program (WEAP) shall be implemented for work crews by qualified biologist(s). The WEAP training shall be presented to all construction personnel. Training materials and briefings shall include but not be limited to, discussion of the Federal and state Endangered Species Acts, the consequences of noncompliance with Project permitting requirements, identification and values of sensitive plant and wildlife species and significant natural plant community habitats, the limits of construction activities, fire protection measures, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. Training materials and a course outline shall be provided to the CDFW for review and approval at least 30 days prior to the start of project construction. Maps showing the location of sensitive wildlife or populations of rare plants, exclusion areas, or other

construction limitations (i.e., limited operating periods) shall be provided to the environmental monitors and work crews prior to ground disturbance.

- **MM BIO-4**: All construction equipment shall be operated in a manner to prevent accidental damage to areas outside of the limits of disturbance. No structure of any kind, vegetation removal, ground disturbance, or incidental storage of equipment or supplies, shall be allowed outside of the limits of disturbance.
- **MM BIO-5**: An updated focused plant survey will be conducted no more than one year prior to the beginning of Project construction to identify any shifts in the locations of sensitive plants and vegetation communities. The locations of special status natural communities that are adjacent to the Project's temporary and permanent impact footprints will be delineated as ESAs on the Project's plans.
- **MM BIO-6:** The City shall mitigate for temporary impacts to Menzie's golden bush scrub at a minimum 1:1 ratio through the planting of Menzie's golden bush scrub within the temporarily impacted areas of the BWER.

  The City shall mitigate for permanent impacts to Menzies's golden bush scrub at a minimum 1:1 ratio using one of the following approaches:

  - Preparing and implementing a Habitat Mitigation and Monitoring Plan (HMMP) to establish Menzie's golden bush scrub at a 1:1 ratio within City-controlled lands that are adjacent to the BWER;
  - Providing funding to CDFW to establish Menzie's golden bush scrub at a 1:1 ratio within the BWER; or
  - Purchase of credits for a habitat type containing Menzie's golden bush scrub from a mitigation bank at a 1:1 ratio.
- **MM BIO-7**: The City shall mitigate for temporary impacts to California bulrush marsh at a 1:1 ratio through the planting of California bulrush marsh within the temporarily impacted areas of the BWER, or within temporarily impacted drainages such as Fiji Ditch, Feature 3 just north of the Culver Loop, etc.
- **MM BIO-8**: Arroyo willow thicket, which is located entirely within the Culver Loop, would be removed by hand tools unless authorized to remove by mechanical means by CDFW and USFWS.

- **MM BIO-9:** The City shall mitigate for permanent impacts to arroyo willow thicket at a minimum 1:1 ratio using one of the following approaches:
    - Preparing and implementing a Habitat Mitigation and Monitoring Plan (HMMP) to establish arroyo willow thicket at a 1:1 ratio within City-controlled lands that are adjacent to the BWER;
    - Providing funding to CDFW to establish arroyo willow thicket at a 1:1 ratio within the BWER; or
    - Purchase of credits for a habitat type containing arroyo willow thicket from a mitigation bank at a 1:1 ratio.

2.3.2 Wetlands and Other Waters

Regulatory Setting

Sections 404 and 401 of the Clean Water Act

The federal Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 404 of the CWA (33 USC 1251 et seq.) establishes a permit program administered by the USACE regulating the discharge of dredged or fill material into waters of the United States, including wetlands. All federal agencies are to avoid impacts to wetlands whenever there is a practicable alternative. This permitting authority applies to all waters of the United States where the material has the effect of (1) replacing any portion of waters of the United States with dry land or (2) changing the bottom elevation of any portion of waters of the United States. These fill materials would include sand, rock, clay, construction debris, wood chips, and materials used to create any structure or infrastructure in waters of the United States. Dredge and fill activities are typically associated with development Projects; water resource-related Projects; infrastructure development; and wetland conversion to farming, forestry, or urban development.

Section 401 of the CWA requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the United States must obtain a State Water Quality Certification (or waiver thereof) to ensure that the activity will comply with other provisions of the CWA. The State Water Resources Control Board (SWRCB), in conjunction with the nine California Regional Water Quality Control Boards (RWQCBs), is responsible for administering the Section 401 water quality certification program. These guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Rivers and Harbors Appropriation Act of 1899

Section 10 of the Rivers and Harbors Act (33 USC 403) requires authorization from the Secretary of the Army, acting through the USACE, for the construction of any structure (such as riprap) and activities (such as dredging) in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The USACE grants or denies permits based on the effects on navigation. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States and applies to all structures, from the smallest floating dock to the largest commercial undertaking. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent or semi-permanent obstacle or obstruction.

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) provides for the management of the nation's coastal resources, including the Great Lakes. The goal of the CZMA is to preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone. It outlines the Coastal Zone Management Program (CZMP), which aims to balance competing land and water issues through state and territorial coastal management programs.

The federal government certified the California Coastal Management Program (CCMP) in 1977. The enforceable policies of that document are Chapter 3 of the California Coastal Act of 1976. All documents are reviewed for consistency with these policies. For the entire California coast (except San Francisco Bay), the state agency responsible for implementing the CZMA is the CCC. The CCC is responsible for reviewing proposed federal and federally licensed or permitted activities to assess their consistency with the approved CCMP.

Executive Order 11990

Executive Order 11990 establishes a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. It directs federal agencies to (1) minimize the destruction, loss, or degradation of wetlands and (2) preserve and enhance the natural and beneficial values of wetlands in carrying out the agencies' responsibilities. The U.S. Department of Transportation promulgated DOT Order 5660.1A in 1978 to comply with this direction. On federally funded projects, impacts on wetlands must be identified. Alternatives that avoid wetlands must be considered. If wetland impacts cannot be avoided, then all practicable measures to minimize harm mush be included. This must be documented in a specific Wetlands Only Practicable Alternative Finding. Early public involvement in projects affecting wetlands is also required. The FHWA provides technical assistance (Technical Advisory 6640.8A) and review environmental documents for compliance.

California Coastal Act of 1976

The California Coastal Act of 1976 (Coastal Act) (Public Resources Code Sections 30000 et seq.) was enacted to establish policies and guidelines that provide direction for the conservation and development of the California coastline. The Coastal Act established the CCC and created a state and local government partnership to ensure that public concerns regarding coastal development are addressed. The CCC plans and regulates the use of land and water in the "coastal zone", which was mapped by the California State Legislature and includes a three-mile-wide band of ocean and extends inland from several hundred feet in highly urbanized areas to five miles in certain rural areas. Pursuant to Section 30001.5, the State's basic goals for the coastal zone are to:

(a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.

(b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.

(c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.

(d) Assure priority for coastal-dependent and coastal-related development over other development on the coast.

(e) Encourage state and local initiatives and corporation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.

An environmentally sensitive habitat area (ESHA) is defined in Section 30107.5 of the Coastal Act as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could easily be disturbed or degraded by human activities and development". Section 30121 identifies wetlands, which often qualify as ESHAs, as "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens". Section 30240 of the Coastal Act requires that

(a) environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas and

(b) development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas.

The Coastal Act includes specific policies that address issues such as shoreline public access and recreation; lower cost visitor accommodations; terrestrial and marine habitat protection; visual resources; landform alteration; agricultural lands; commercial fisheries; industrial uses; water quality; offshore oil and gas development; transportation; development design; power plants; ports; and public works. The policies of the Coastal Act constitute the statutory standards applied to planning and regulatory decisions made by the CCC and by local governments, pursuant to the Coastal Act.

Implementation of Coastal Act policies is accomplished primarily through the preparation of local coastal programs (LCPs) that are required to be completed by each of the 15 counties and 60 cities located in whole or in part in the coastal zone. Following certification of an LCP, regulatory responsibility is delegated to the local jurisdiction, but the CCC retains original permit jurisdiction over certain specified lands (such as tidelands and public trust lands). Development within the coastal zone may not commence until a Coastal Development Permit has been issued by either the CCC or a local government that has a Coastal Commission-certified LCP.

California Porter-Cologne Water Quality Control Act

Pursuant to the California Porter-Cologne Water Quality Control Act, the SWRCB and the nine RWQCBs may require permits (known as “Waste Discharge Requirements” or WDRs) for the fill or alteration of the waters of the State. The term “waters of the State” is defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code, Section 13050[e]). The State and Regional Boards have interpreted their authority to require WDRs to extend to any proposal to fill or alter waters of the State, even if those same waters are not under USACE jurisdiction (e.g., non-404/401 waters). Pursuant to this authority, the SWRCB and RWQCB may require the submission of a “report of waste discharge” under Section 13260, which is treated as an application for WDRs.

The Porter-Cologne Water Quality Control Act charges the SWRCB and the nine RWQCBs statewide with protecting water quality throughout California. Typically, the SWRCB and RWQCB act in concert with the USACE under Section 401 of the CWA in relation to permitting fill of federally jurisdictional waters. SWRCB and the RWQCBs may require permits (e.g., WDRs) for the fill or alteration of the waters of the State.

California Fish and Game Code – Sections 1600 through 1616

California Fish and Game Code Sections 1600 et seq. establish a process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

California Fish and Game Code Section 1602 requires any person, State, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

1. substantially obstruct or divert the natural flow of a river, stream, or lake
2. substantially change or use any material from the bed, channel, or bank of a river, stream, or lake
3. deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake

Section 1602 of the California Fish and Game Code applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Lake or Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW. The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for additional details.

Environmental Setting

A total of nine jurisdictional features were mapped in the BSA. This includes drainages with bed and banks (Ballona Creek and other blueline streams), artificial basins, and areas of wetland/marsh or riparian vegetation dominated by hydrophytic plant species. These areas may also be considered ESHAs by the CCC; however, the determination of what areas would be regulated as an ESHA would be made by the CCC as part of the CDP process.

Table 2.3.2-1 – Summary of Jurisdictional Resources in the BSA

Jurisdictional Features	Existing Resources (acres)
USACE Waters of the United States	-
Wetlands	11.805
Non-wetland Waters	9.948
Total USACE Waters of the United States	21.753
RWCQB Waters of the State	-
Wetlands	11.805
Non-wetland Waters	9.948
Total RWQCB Waters of the State	21.753
Total CDFW Jurisdictional Resources*	24.434
Total CCC Jurisdictional Resources*	24.734

USACE: U.S. Army Corps of Engineers; RWQCB: Regional Water Quality Control Board; CDFW: California Department of Fish and Wildlife; CCC: California Coastal Commission
* Jurisdictional Resources include wetland and non-wetland features.
Source: Psomas 2024b.

A total of 21.753 acres of waters of the United States under the regulatory authority of the USACE are present in the BSA. This includes 11.805 acres of wetlands that were identified based on the presence of hydrophytic vegetation and wetland hydrology and the assumed presence of hydric soil. The extent of waters of the United States was based on the OHWM, as evidenced by water staining on the concrete-lined banks of Ballona Creek or a change from upland to hydrophytic vegetation or hydrology indicators for the other features.

All features with USACE jurisdiction, as analyzed above, are also subject to the jurisdiction of the RWQCB. Approximately 21.753 acres of waters of the State under the regulatory authority of the RWQCB occurs in the BSA.

CDFW jurisdiction includes blueline streams with defined beds and banks, an artificial basin with bed and banks, and a human-altered freshwater marsh along a blueline stream. A total of 24.434 acres of waters under the regulatory authority of the CDFW occurs in the BSA.

Because the CCC uses a one parameter approach to identify the limits of jurisdictional wetlands, all features found within the BSA are subject to CCC jurisdiction based on all of them having either wetland hydrology and/or hydrophytic vegetation. Areas of upland vegetation between patches of hydrophytic vegetation were not considered CCC wetlands. Approximately 24.734 acres of CCC wetlands under the regulatory authority of the CCC occurs in the BSA.

Environmental Consequences

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Since Alternative 1 would involve no construction, there would be no short-term effects related to water quality and storm water runoff that would affect downstream wetlands or other waters. Alternative 1 would result in no temporary increase in water quality effects related to potential spills of water quality contaminants from a construction site. No vegetation removal, grading, or other revisions to local hydrology would occur under Alternative 1. Therefore, Alternative 1 would not increase risk of soils/sediments getting into Ballona Creek.

Under Alternative 1, there would be no temporary construction within Ballona Creek nor would the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek be demolished. Therefore, there would be no potential effects related to water quality related to machinery being operated in/near the creek, or of polluted runoff entering the creek, or of debris falling into Ballona Creek. Given that the existing bridge structures in the project site likely contain lead based paint and asbestos containing materials, Alternative 1 would avoid the potential for these building materials to pollute local waters during demolition, as could occur under Alternative 2. There would also be no need to install temporary cofferdams under Alternative 1 that could potentially increase scour and erosion in the Ballona Creek, as well as temporary flood risks. Alternative 1 would also not involve any work within the groundwater table so no dewatering would be needed and no resultant water quality effects would occur for this alternative. Finally, Alternative 1 would not require the temporary removal of the trash screen within Ballona Creek.

<u>Operational Effects</u>

Alternative 1 would involve no alterations to the existing hydrology or floodplain characteristics of the project site. Therefore, there would be no resultant changes in scour or sedimentation within Ballona Creek that would result under this alternative, nor would the total number of piers be decreased under this alternative as would occur under Alternative 2.

Alternative 1 would result in no change to the amount of impervious surface within the project site, nor would the amount of storm water change under Alternative 1. Therefore, Alternative 1 would not result in any increased potential for polluted storm water to enter waterways from the project site. However, Alternative 1 would not result in the implementation of water quality BMPs to detain and treat water that would result from Alternative 2.

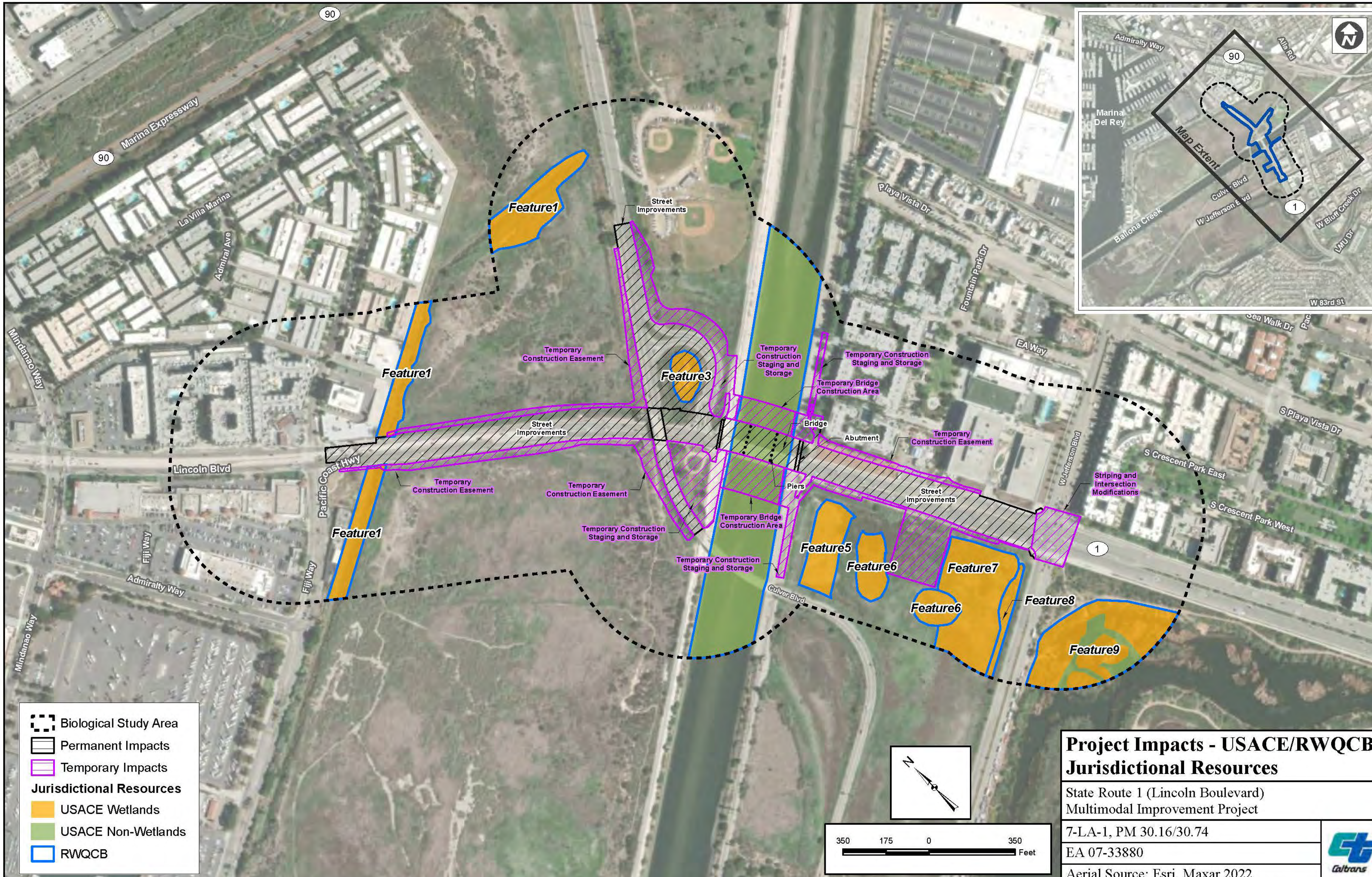
Cumulative Effects

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to wetlands and other waters.

Alternative 2 – Base Alternative

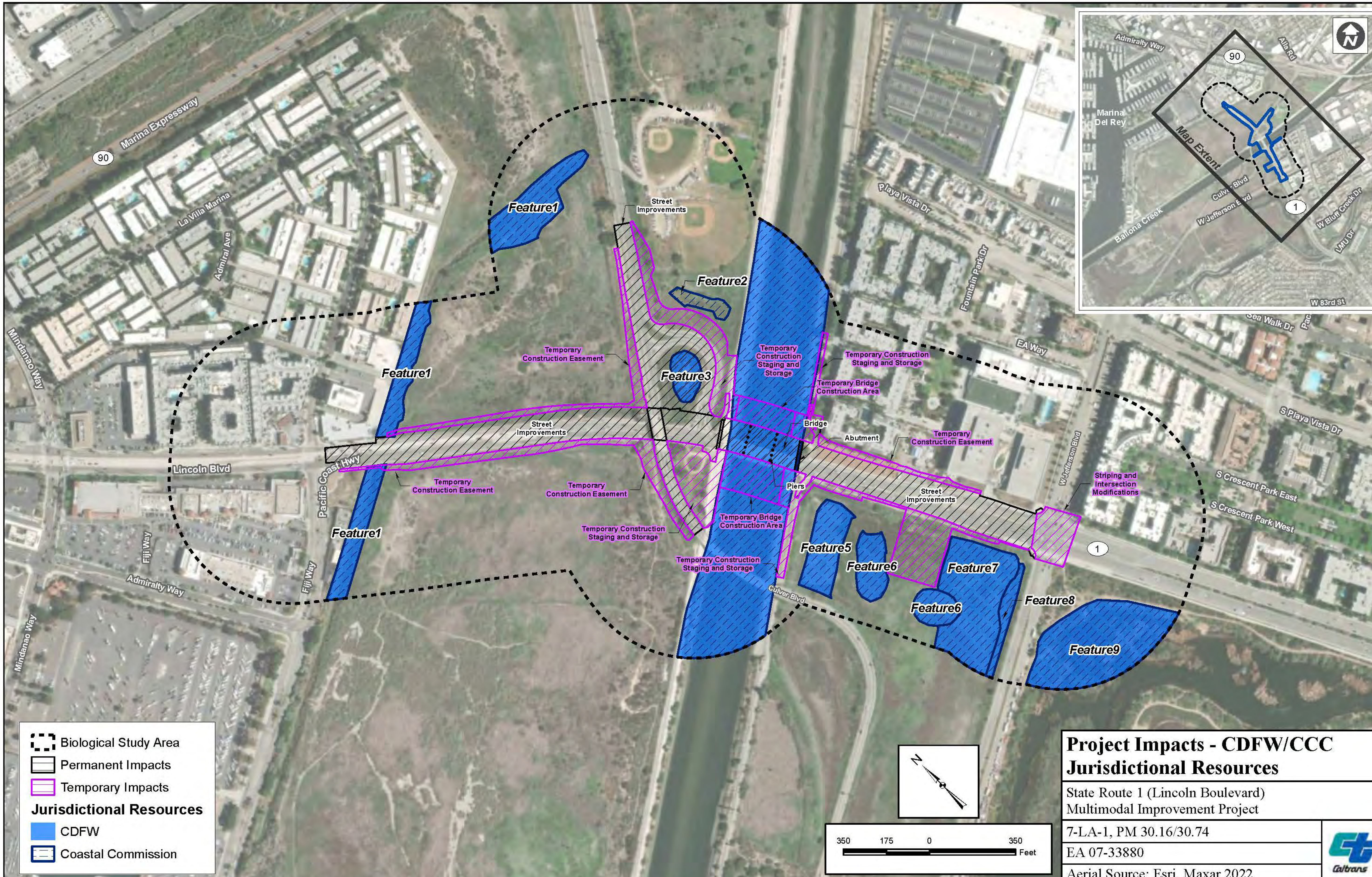
Construction Effects

Impacts on jurisdictional areas were determined by comparing engineering plans with maps of jurisdictional water resources. Alternative 2 would result in temporary effects to wetlands and other waters, consisting of Ballona Creek (Feature 4) and Fiji Ditch (Feature 1), as detailed in Table 2.3.2-2 and as depicted in Figure 2.3.2-1 and Figure 2.3.2-2.



Project Impacts - USACE/RWQCB Jurisdictional Resources
State Route 1 (Lincoln Boulevard) Multimodal Improvement Project
7-LA-1, PM 30.16/30.74
EA 07-33880
Aerial Source: Esri, Maxar 2022
Caltrans
Biological Study Area
Permanent Impacts
Temporary Impacts
Jurisdictional Resources
USACE Wetlands
USACE Non-Wetlands
RWQCB
350
175
0
350
Feet
N
Feature1
Feature3
Feature5
Feature6
Feature7
Feature8
Feature9
Street Improvements
Temporary Construction Easement
Temporary Construction Staging and Storage
Temporary Bridge Construction Area
Bridge
Abutment
Piers
Striping and Intersection Modifications
Lincoln Blvd
Pacific Coast Hwy
Marina Expressway
La Villa Marina
Admiral Ave
Mindanao Way
Fiji Way
Admiralty Way
Culver Blvd
Playa Vista Dr
Fountain Park Dr
EA Way
W Jefferson Blvd
S Crescent Park East
S Crescent Park West
S Playa Vista Dr
Sea Walk Dr
90
1
Marina Del Rey
Map Extent
Ballona Creek
Alla Rd
W Bluff Creek Dr
LMU Dr
W 83rd St

Figure 2.3.2-1



Project Impacts - CDFW/CCC Jurisdictional Resources

State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project

7-LA-1, PM 30.16/30.74

EA 07-33880

Aerial Source: Esri, Maxar 2022

Figure 2.3.2-2

Table 2.3.2-2 – USACE, RWQCB, CDFW, and CCC Jurisdictional Waters Impacted by Alternative 2

Jurisdictional Features	Existing Resources (acres)	Permanent Impact/Piers (acres)**	Permanent Impact/Shade (acres)***	Temporary Impact (acres)****	Total Impact (acres)
USACE Waters of the United States	-	-	-	-	-
Wetlands	11.805	0.463	-	0.033	**0.496**
Non-wetland Waters	9.948	0.007	0.731	2.130	**2.868**
Total USACE Waters of the United States	21.753	0.470	0.731	2.163	**3.364**
RWCQB Waters of the State	-	-	-	-	-
Wetlands	11.805	0.463	-	0.033	**0.496**
Non-wetland Waters	9.948	0.007	0.731	2.130	**2.868**
Total RWQCB Waters of the State	21.753	0.470	0.731	2.163	**3.364**
Total CDFW Jurisdictional Resources*	24.434	0.470	0.731	2.583	**3.784**
Total CCC Jurisdictional Resources*	24.734	0.470	0.731	2.583	**3.784**

USACE: U.S. Army Corps of Engineers; RWQCB: Regional Water Quality Control Board; CDFW: California Department of Fish and Wildlife; CCC: California Coastal Commission

* CDFW and CCC Jurisdictional Resources include wetland and non-wetland features.

** By building a three-span structure instead of a four-span structure and not constructing pier walls for the SR-1/Lincoln Boulevard Bridge over Ballona Creek, Alternative 2 would reduce the amount of concrete and structural supports within the active Ballona Creek channel by approximately 701 square feet from 987 square feet in existing conditions to approximately 286 square feet with Alternative 2, which represents a 71 percent reduction.

*** Alternative 2 would result in 31,850 sf (0.7312 acres) of shading within Ballona Creek, which is an increase of 16,170 sf (0.3712 acres) from the 15,680 sf (0.3599 acres) of existing shading from the current bridge.

**** Temporary impact acreage for Ballona Creek includes the permanent impact areas for piers and shading.

Source: Psomas 2024b.

Ballona Creek

During the second stage of construction, the bike trail profile on the north side of Ballona Creek. To construct the east side of the replacement SR-1/Lincoln Boulevard Bridge over Ballona

Creek, temporary cofferdams[37] would be installed and used to create a work area within Ballona Creek in areas where new piers would be built. Abutments would be constructed including 36" diameter CIDH concrete piles, and stone columns installed beneath the abutments. Piers would be constructed consisting of 66-inch diameter Cast In Steel Shell (CISS) concrete pile columns each with integral drop pier caps. Concrete slope paving would then be installed. Thereafter, existing utilities from the existing SR-1/Lincoln Boulevard Bridge would be relocated to new east side of the SR-1/Lincoln Boulevard Bridge.

During the third stage of construction, the west side of the SR-1/Lincoln Boulevard Bridge would be replaced. During this stage, the existing SR-1/Lincoln Boulevard Bridge would be removed. Temporary cofferdams would be installed and used to create a work area within Ballona Creek in areas where demolition of the existing piers would occur. The existing footings would be demolished and removed. The existing timber piles would be left in place below the Ballona Creek surface level. Then, the west side of SR-1/Lincoln Boulevard Bridge over Ballona Creek would be built. Temporary cofferdams would be installed and used to create a work area within Ballona Creek in areas where new piers would be constructed. Abutments would be constructed including 36" diameter CIDH concrete piles, and stone columns installed beneath the abutments. Piers would be constructed consisting of 66-inch diameter CISS concrete pile columns each with integral drop pier caps. New piers would be driven between the existing timber piles that would remain in place. A concrete deck closure pour would then be cast to tie the two bridge halves together. Concrete slope paving would then be installed along the banks of Ballona Creek.

Alternative 2 would construct a new, wider SR-1/Lincoln Boulevard Bridge that would only have three spans instead of four spans with the existing bridge. The structural supports for the replacement SR-1/Lincoln Boulevard Bridge in Ballona Creek would consist of two piers (each consisting of six, 66" diameter concrete piles) with no pier walls. By modifying the bridge from a four-span to a three-span structure and not constructing pier walls, Alternative 2 would reduce the amount of concrete and structural supports within Ballona Creek by approximately 701 square feet from 987 square feet in existing conditions to approximately 286 square feet with Alternative 2, which represents a 71 percent reduction. More information on this is provided in Table 1-1 within Chapter 1, Proposed Project.

Permanent shading within Ballona Creek would increase with Alternative 2, which includes the replacement of a 64-foot-wide existing bridge structures with a new 130-foot-wide bridge structure. With the widened structure, Alternative 2 would result in 31,850 sf (0.7312 acres) of

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[37] A cofferdam is a watertight enclosure from which water is pumped to expose the bed of a body of water so that construction can occur.

shading, which is an increase of 16,170 sf (0.3712 acres) from the 15,680 sf (0.3599 acres) of existing shading.

Table 2.3.2-3 – Alterative 2 Impacts to Jurisdictional Resources in Feature 4 (Ballona Creek)

Jurisdiction	Existing Resources (acres)	Permanent Impact/Piers (acres)	Permanent Impact/Shade (acres)	Temporary Impact (acres)
USACE Waters of the United States	-	-	-	-
Wetlands	–	–	–	–
Non-wetland Waters	9.346	0.007*	0.731**	2.130***
Total USACE Waters of the United States	**9.346**	**0.007***	**0.731****	**2.130*****
RWCQB Waters of the State	-	-	-	-
Wetlands	–	–	–	–
Non-wetland Waters	9.346	0.007*	0.731**	2.130***
Total RWQCB Waters of the State	**9.346**	**0.007***	**0.731****	**2.130*****
Total CDFW Jurisdictional Resources	**12.003**	**0.007***	**0.731****	**2.550*****
Total CCC Jurisdictional Resources	**12.003**	**0.007***	**0.731****	**2.550*****

* By building a three-span structure instead of a four-span structure and not constructing pier walls for the SR-1/Lincoln Boulevard Bridge over Ballona Creek, Alternative 2 would reduce the amount of concrete and structural supports within the active Ballona Creek channel by approximately 701 square feet from 987 square feet in existing conditions to approximately 286 square feet with Alternative 2, which represents a 71 percent reduction.

** Alternative 2 would result in 31,850 sf (0.7312 acres) of shading, which is an increase of 16,170 sf (0.3712 acres) from the 15,680 sf (0.3599 acres) of existing shading.

*** Temporary impact acreage for Ballona Creek includes the permanent impact areas for piers and shading.

Source: Psomas 2024b.

Fiji Ditch

Fiji Ditch (Feature 1) would be impacted to allow for the installation of sidewalks on both sides of SR-1/Lincoln Boulevard at Fiji Ditch. This work would involve the extension of the existing culvert within this drainage on both sides of the roadway to accommodate the new sidewalks. Impacts to Fiji Ditch (Feature 1) are detailed in Table 2.3.2-4. In addition to areas that would be permanently impacted within this drainage, through the extension of the culvert, there would be additional vegetated areas that would be temporarily impacted through vegetation removal and temporary construction access.

To minimize effects, **MM BIO-10** would be implemented, which requires that temporary impact areas within Fiji Ditch be re-planted with native plant species in consultation with property owners and permitting agencies.

Fiji Ditch (Feature 1) would be permanently impacted to allow for the installation of sidewalks on both sides of SR-1/Lincoln Boulevard at Fiji Ditch. This work would involve the extension of the existing culvert within this drainage on both sides of the roadway to accommodate the new sidewalks. Impacts to Feature 1 (Fiji Ditch) are detailed in Table 2.3.2-4.

Table 2.3.2-4 – Alternative 2 Impacts to Fiji Ditch (Feature 1)

Jurisdiction	Existing Resources (acres)	Permanent Impact (acres)	Temporary Impact (acres)
USACE Waters of the United States	-	-	-
Wetlands	3.257	0.004	0.033
Non-wetland Waters	–	–	–
Total USACE Waters of the United States	**3.257**	**0.004**	**0.033**
RWCQB Waters of the State	-	-	-
Wetlands	3.257	0.004	0.033
Non-wetland Waters	–	–	–
Total RWQCB Waters of the State	**3.257**	**0.004**	**0.033**
Total CDFW Jurisdictional Resources*	**3.257**	**0.004**	**0.033**
Total CCC Jurisdictional Resources*	**3.257**	**0.004**	**0.033**

Source: Psomas 2024b.

Alternative 2 would result in permanent impacts to Feature 3, which is an unnamed drainage feature that is located within the Culver Loop that drains via an underground pipe to an outlet on the north side of Ballona Creek. This feature would be permanently removed to accommodate the re-aligned Culver Loop proposed by Alternative 2. Impacts to Feature 3 are detailed below in Table 2.3.2-5.

Table 2.3.2-5 – Alternative 2 Impacts to Feature 3 (an unnamed feature within the Culver Loop)

Jurisdiction	Existing Resources (acres)	Permanent Impact (acres)	Temporary Impact (acres)
USACE Waters of the United States	-	-	-
Wetlands	0.459	0.459	0.000
Non-wetland Waters	–	–	–
Total USACE Waters of the United States	**0.459**	**0.459**	**0.000**
RWCQB Waters of the State	-	-	-
Wetlands	0.459	0.459	0.000
Non-wetland Waters	–	–	–
Total RWQCB Waters of the State	**0.459**	**0.459**	**0.000**
Total CDFW Jurisdictional Resources*	**0.459**	**0.459**	**0.000**
Total CCC Jurisdictional Resources*	**0.459**	**0.459**	**0.000**

Source: Psomas 2024b.

As required by **MM BIO-11,** permits would be obtained by the City from regulatory agencies including USACE, the RWQCB, the CDFW, and the CCC. Through the permitting processes with these agencies, compensatory mitigation would be specified to mitigate for permanent impacts to waters. Compensatory mitigation shall be provided at a minimum 1:1 ratio for permanent impacts to waters under the regulatory authority of the USACE, the RWQCB, the CDFW, and the CCC.

<u>Operational Effects</u>

Alternative 2 would have no operational effects related to wetlands or other waters. Permanent impacts to wetlands and other waters are described above under “Construction Effects”.

<u>Cumulative Effects</u>

Alternative 2 would result in permanent impacts to Ballona Creek and Fiji Ditch. Permanent structural footings within Ballona Creek would be reduced when compared to the existing bridge; however, Alternative 2 would increase shading within Ballona Creek. As discussed above, Alternative 2 would be required to obtain regulatory permits, which would ensure that permanent impacts to jurisdictional waters are fully mitigated.

In addition to Alternative 2, the Ballona Wetlands Restoration Project would also result in impacts to wetlands and waters, specifically to Ballona Creek and to Fiji Ditch. The Ballona Wetlands Restoration Project’s preferred alternative would result in the establishment and enhancement of jurisdictional waters, with a net increase in the acreage and quality of wetlands and non-wetland waters when compared to existing conditions. The Draft EIR for the Ballona Wetlands Restoration Project determined that the Ballona Wetlands Restoration Project would result in temporary impacts during construction that would be mitigated, but that there would be long-term beneficial effects to riparian and sensitive natural communities.

No other cumulative projects would result in substantial effects to wetlands or other waters.

Therefore, Alternative 2 and cumulative projects would not result in a substantial adverse effect related to wetlands and other waters.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

Construction Effects

Alternative 2A would not change any construction work activities within Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2A would involve less ground disturbance and vegetation removal within a small portion of the project site that is west of SR-1/Lincoln Boulevard and south of Fiji Ditch and north of Culver Boulevard. This would result in a minor temporary decrease in the amount of stormwater generated from this area of the project site. Otherwise, the construction effects of Alternative 2A related to wetlands and other waters would be the same as for Alternative 2.

Alternative 2A would not change any effects related to Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2A would result in the same amount of impervious surface coverage within the project site as would result from Alternative 2. The primary difference between these two alternatives is that Alternative 2A would include a retaining wall that would reduce temporary ground disturbance within the BWER. In contrast, Alternative 2 would not build a retaining wall and would instead re-grade the area west of SR-1/Lincoln Boulevard so that it is a consistent 2:1 slope leading down to the roadway with native landscaping. Alternative 2A would require the installation of backdrains, brow ditches, and similar best practices to ensure proper drainage and integrity of the proposed retaining wall. In general, the amount of stormwater generated by Alternative 2A once built would be the same as for Alternative 2. Alternative 2A would convey stormwater flows in the same direction of flow and in the same general quantities as proposed for Alternative 2. Otherwise, Alternative 2A would not result in any additional changes related to wetlands and other waters when compared to Alternative 2.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would not change any construction work activities within Ballona Creek when compared to Alternative 2 but would reduce construction activities within Fiji Ditch. Otherwise, the construction effects of Alternative 2A related to wetlands and other waters would be the same as for Alternative 2.

Operational Effects

Alternative 2B would not change any effects related to Ballona Creek when compared to Alternative 2. The cantilevered sidewalks at Fiji Ditch would reduce permanent effects to this drainage feature. Otherwise, Alternative 2B would not result in any additional changes related to wetlands and other waters when compared to Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would involve a greater amount of ground disturbance and vegetation removal within a small portion of the project site near the existing Culver Boulevard bridge on both sides of SR-1/Lincoln Boulevard. This would result in a minor temporary increase in the amount of stormwater generated from this area of the project site. Otherwise, the construction effects of Alternative 2A related to wetlands and other waters would be the same as for Alternative 2.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would involve a greater amount of ground disturbance and vegetation removal within a small portion of the project site near the existing Culver Boulevard bridge west of SR-1/Lincoln Boulevard. This would result in a minor temporary increase in the amount of stormwater generated from this area of the project site. Otherwise, the construction effects of Alternative 2D related to wetlands and other waters would be the same as for Alternative 2.

Operational Effects

Alternative 2D would not change any effects related to Ballona Creek, Fiji Ditch, or any other drainage features within the project site when compared to Alternative 2. Alternative 2D would result in an additional bicycle/pedestrian ramp that is not included in Alternative 2, which would result in additional impervious surface that would generate additional runoff. However, any additional runoff would be captured and retained or detained so the new ramp would not result in any new substantial adverse effects. Otherwise, Alternative 2D would not result in any additional changes related to wetlands and other waters when compared to Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

MM BIO-1 through **MM BIO-4** would be implemented to avoid and minimize effects.

Also, specifically relating to wetlands and other waters, Alternative 2 would implement the following measures.

- **MM BIO-10**: All temporary impacts to vegetated portions of Feature 1 (Fiji Ditch) shall be re-planted with native plant species in consultation with property owners and permitting agencies.

- **MM BIO-11**: The City shall ensure that:

    a. No ground-disturbance, deposition of fill, or vegetation clearing activities within jurisdictional drainages shall occur until all regulatory permits have been obtained. This includes a USACE Section 404 Permit; an RWQCB Section 401 Water Quality Certification; a CDFW Section 1602 Streambed Alteration Agreement; and a CCC Coastal Development Permit (CDP).

    b. The Contractor shall maintain a copy of agency permits at the construction site throughout the duration of construction.

    c. Compensatory mitigation shall be provided at a minimum 1:1 ratio for permanent impacts to waters under the regulatory authority of the USACE, the RWQCB, the CDFW, and the CCC. Final details of the compensatory mitigation shall be determined within the regulatory permits. Mitigation for permanent impacts to waters would consist of one of the following approaches:

        i. Providing funding to CDFW to rehabilitate, enhance, or restore jurisdictional waters within the BWER;

        ii. Preparing and implementing a Habitat Mitigation and Monitoring Plan (HMMP) to rehabilitate, enhance, or restore jurisdictional waters within City-controlled lands that are adjacent to the BWER; or

        iii. Purchase of credits from a mitigation bank.

2.3.3 Plant Species

Regulatory Setting

California Fish and Game Code – Native Plant Protection

Sections 1900–1913 of the California Fish and Game Code were developed to preserve, protect, and enhance Endangered and Rare plants in the State of California. The act requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use that would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

City of Los Angeles Municipal Code

The City of Los Angeles Municipal Code (Article 6 Preservation of Protected Trees Sections 46.00 to 46.06) provides for the protection of certain "protected trees", defined as certain southern California native tree species (e.g., all indigenous oak trees except scrub oak [*Quercus dumosa*], southern California black walnut [*Juglans californica* var. *californica*], western sycamore [*Platanus racemosa*], and California bay [*Umbellularia californica*]) which measure four inches or more in cumulative diameter, four and one-half feet above the ground level at the base of the tree. No protected tree may be relocated or removed except as provided by the municipal code. Removal of protected trees requires a permit by the Board of Public Works. The term "removed" includes 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 parts 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.

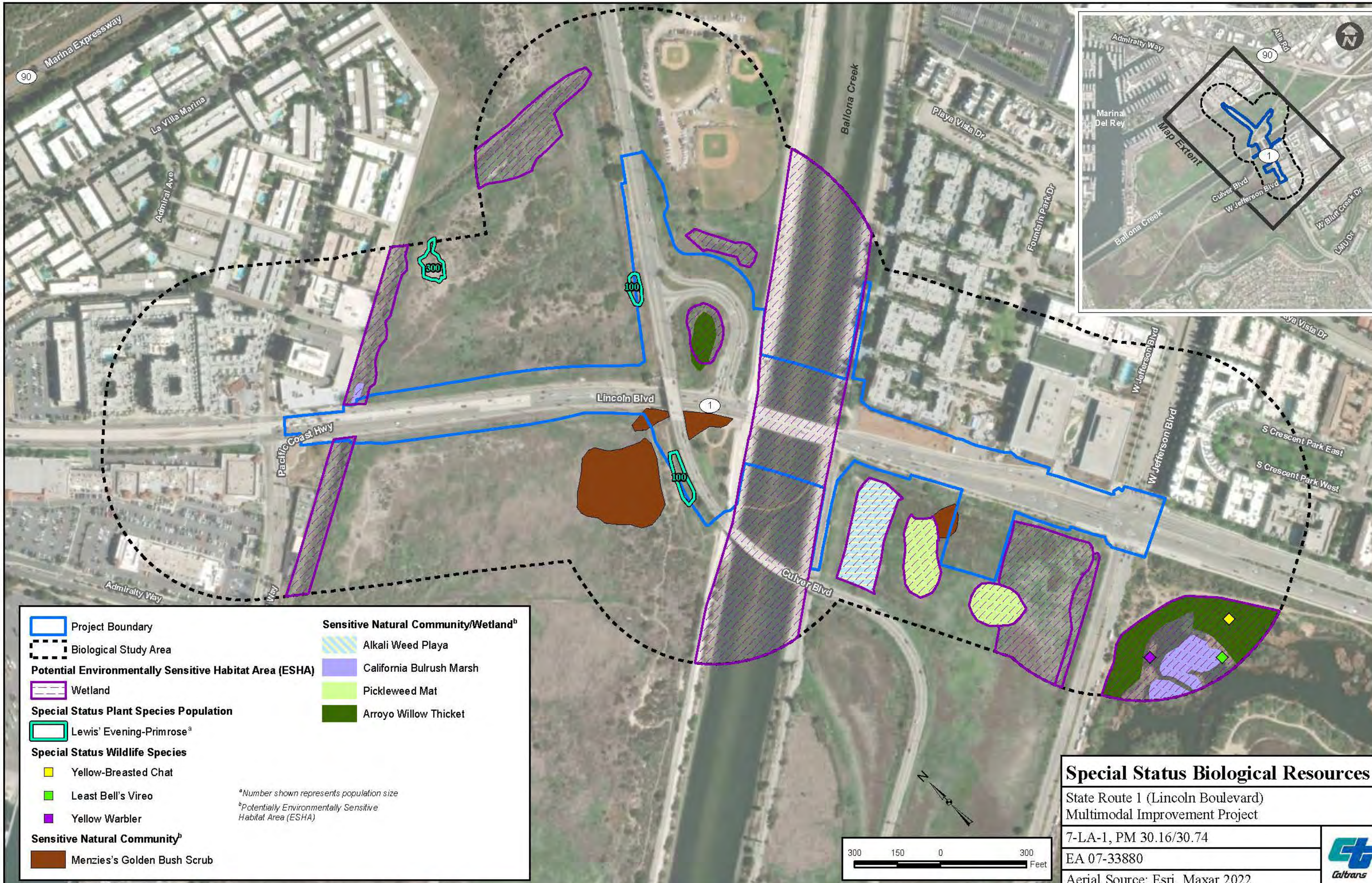
Environmental Setting

The natural communities that occur within the project site are detailed above in Chapter 2.3.1, Natural Communities. The following vegetation communities and other landcovers were mapped in the project site: California sagebrush scrub, coyote brush scrub, degraded coyote brush scrub, laurel sumac scrub, Menzies' golden bush scrub, quailbush scrub, annual brome grassland, cudweed stand, hyssop-leaved *Bassia* stand, semi-natural herbaceous stand, upland mustards, alkali weed playa, annual beard grass – bristly ox-tongue grassland, California bulrush marsh, cattail marsh, pickleweed mat, arroyo willow thicket, mulefat thicket, developed landcover, open water, and parks and landscaping as depicted in Figure 2.3.1-2. Sensitive natural communities that occur within the project site include Menzie's golden bush scrub, alkali weed playa, California bulrush march, pickleweed mat, and arroyo willow thicket.

Special Status Plants

Table 2.3.3-1 provides a summary of special status plant species and sensitive natural communities reported to occur in the vicinity of the BSA and includes information on the status, general habitat description, habitat suitability of the BSA, and potential for the species to occur; species observed during surveys are noted. This list includes species reported by the CNDDB and the CNPS, those on the USFWS official species list, and species considered in the Draft EIR prepared for the Ballona Wetlands Restoration Project; it is supplemented with species from the Project biologist's experience that either occur nearby or could occur based on the presence of suitable habitat. Figure 2.3.3-1 in Section 2.3.1, Natural Communities, shows the locations of special status species observed during surveys. Additional focused special status plant surveys are being conducted within the project site in the 2024 survey season. Information on the results of these surveys will be provided along with the Final EIR/EA.

Table 2.3.3-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Biological Survey Area



Marina Expressway
90
La Villa Marina
Admiral Ave
Ballona Creek
Playa Vista Dr
Fountain Park Dr
W Jefferson Blvd
Lincoln Blvd
1
Pacific Coast Hwy
Culver Blvd
Admiralty Way
S Crescent Park East
S Crescent Park West
300
100
Admiralty Way
Alla Rd
Marina Del Rey
Map Extent
Culver Blvd
W Jefferson Blvd
Ballona Creek
W Bluff Creek Dr
LMU Dr
Project Boundary
Biological Study Area
Potential Environmentally Sensitive Habitat Area (ESHA)
Wetland
Special Status Plant Species Population
Lewis' Evening-Primrose[a]
Special Status Wildlife Species
Yellow-Breasted Chat
Least Bell's Vireo
Yellow Warbler
Sensitive Natural Community[b]
Menzies's Golden Bush Scrub
Sensitive Natural Community/Wetland[b]
Alkali Weed Playa
California Bulrush Marsh
Pickleweed Mat
Arroyo Willow Thicket
[a]Number shown represents population size
[b]Potentially Environmentally Sensitive Habitat Area (ESHA)
300 150 0 300 Feet
Special Status Biological Resources
State Route 1 (Lincoln Boulevard)
Multimodal Improvement Project
7-LA-1, PM 30.16/30.74
EA 07-33880
Aerial Source: Esri, Maxar 2022
Caltrans

Figure 2.3.3-1

Environmental Consequences

Alternative 1 – No Build Alternative:

<u>Construction Effects</u>

Alternative 1 would involve no vegetation removal, grading, or other ground disturbing activities; therefore, Alternative 1 would result in no short-term effects to plants.

<u>Operational Effects</u>

Alternative 1 would have no operational effects related to plants.

<u>Cumulative Effects</u>

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to plants.

Alternative 2 – Base Alternative

<u>Construction Effects</u>

The effects of Alternative 2 on natural communities are discussed above in Section 2.3.1, Natural Communities. Sensitive natural communities that would be impacted by Alternative 2 would include Menzie’s golden bush scrub, California bulrush march, and arroyo willow thicket.

Sixty-six special status plant species have been reported from the Project region and are listed in Table 2.3.5-1. Fourteen of these species are federally and/or state listed as Threatened, Endangered, or Rare. These species are not expected to occur within the BSA due to the lack of suitable habitat, because the species are presumed extirpated from the County, because all reported occurrences in the region are historic, because the BSA is outside the current known range of the species, and/or because they were not observed during focused plant surveys conducted for the BSA during the spring/summer 2017 or previous surveys of the BWER. There would be no impact on these listed species and no mitigation would be required; therefore, they are not discussed below.

One special status plant species, Lewis’ evening-primrose (*Camissoniopsis lewisii*), was observed in the BSA. The locations where Lewis’ evening-primrose were observed are depicted on Figure 2.3.3-1. This species is discussed below. While not observed in the BSA during surveys conducted for the Project, suffrutescent wallflower (*Erysimum suffrutescens*), south coast branching phacelia (*Phacelia ramosissima var. austrolitoralis*), and woolly seablite (*Suaeda taxifolia*) have low potential to occur in the BSA since they have been reported recently from the BWER and the BSA contains suitable habitat.

Additional focused surveys for special status plants are being conducted within the project site in the 2024 survey season. Additional information on the results of these surveys will be provided along with the Final EIR/EA.

Also, as required by **MM BIO-5**, an updated focused plant survey shall be conducted no more than one year prior to the beginning of Project construction to identify any shifts in the locations of sensitive plants and vegetation communities. The locations of special status natural communities that are adjacent to the temporary and permanent impact footprints for Alternative 2 will be delineated as ESAs on the Project's plans.

Lewis' Evening-primrose (*Camissoniopsis lewisii*)

Lewis' evening-primrose was observed in the BSA during the 2017 focused plant surveys, as depicted on Figure 2.3.3-1. This species has a CRPR of 3. Populations of this species may be considered an ESHA by the CCC; however, they likely do not meet the definition of an ESHA due to the following reasons:

- The species' CRPR rank indicates that it is on a "review list", meaning there is not enough information to consider it rare or endangered in California and/or elsewhere. It also has a global and state rank of 4, indicating that it is uncommon but not rare.
- The populations in the BSA are also not associated with sensitive natural communities which may be considered ESHAs themselves. Therefore, Lewis' evening-primrose populations in the BSA are not being analyzed as ESHAs for the purposes of this Project.
- The final determination of what areas would be regulated as an ESHA would be made by the CCC as part of the CDP process for the Project.

Approximately 500 individuals were observed in the BSA. Specifically in three populations north of Ballona Creek; one population occurs west of SR-1/Lincoln Boulevard and two populations occur east of SR-1/Lincoln Boulevard. The species occur on a flat, sandy plain in cudweed stand, upland mustard, and California sagebrush scrub habitats and co-occur with species such as small-flowered camissoniopsis (*Camissoniopsis micrantha*), pleasant-scented cudweed, coyote brush (*Baccharis pilularis* ssp. *consanguinea*), Geraldton carnation weed (*Euphorbia terracina*), and black mustard.

The Lewis' evening-primrose population of 300 individuals in the northern portion of the project site would not be impacted by Alternative 2 and no mitigation would be required for this population.

The two Lewis' evening-primrose populations of approximately 100 individuals each within the project site that are located along Culver Boulevard on either side of SR-1/Lincoln Boulevard partially fall within the impact area for Alternative 2. These populations will be partially impacted by Alternative 2. It is anticipated that fewer than the 200 individuals that occur at these locations will be impacted by Alternative 2; however, population size may vary from year to year so the exact number of individuals that may be impacted cannot be determined. Given the status of this species (e.g., CRPR 3) and limited number of individuals impacted relative to the population size in the BWER (e.g., approximately 12,300 individuals [WRA 2011]), this impact is not considered adverse. The Ballona Wetlands Restoration Project would result in the temporary loss of the approximately 12,300 individuals previously observed in the BWER. If the construction schedule were to overlap with the Ballona Wetlands Restoration Project, the temporary loss of natural-occurring seed propagation has potential to be adverse.

To mitigate for potential effects to Lewis' evening-primrose, **MM BIO-12** would be implemented, which requires that compensatory mitigation occur for direct impacts that would occur to this plant species.

With implementation of **MM BIO-12,** Alternative 2 may affect but not adversely affect Lewis' evening-primrose.

Suffrutescent Wallflower (*Erysimum suffrutescens*)

Suffrutescent wallflower was previously reported as occurring at the western end of the BWER. Specifically, approximately 29 individuals were observed in coastal dune habitat of the BWER during surveys previously conducted for the Ballona Wetlands Restoration Project. While coastal dune habitat is not present in the BSA, the scrub communities in the BSA may represent suitable habitat for suffrutescent wallflower. No suffrutescent wallflower were present in the BSA during the 2017 surveys and no adverse effect on this species would occur if determined to be absent. Given the presence of this species in the BWER; however, it is possible that the nearby population will expand and/or migrate to the BSA and potential direct impacts may occur.

Therefore, to avoid and minimize potential effects to suffrutescent wallflower, **MM BIO-13** would be implemented, which includes requirements for compensatory mitigation if this species is found within the impact footprint during subsequent pre-construction plant survey required pursuant to **MM BIO-5.**

With implementation of **MM BIO-5** and **MM BIO-13,** Alternative 2 may affect but not likely adversely affect suffrutescent wallflowers.

South Coast Branching Phacelia (*Phacelia ramosissima* var. *austrolitoralis*)

South coast branching phacelia was reported at the western end of the BWER. Approximately 600 individuals were observed in coastal dune habitat of the BWER. While coastal dune habitat is not present in the BSA, the scrub and marsh communities in the BSA may represent suitable habitat. No south coast branching phacelia were present in the BSA during the 2017 surveys and no adverse effect on this species would occur if determined to be absent. Given the presence of this species in the BWER; however, it is possible that the nearby population will expand and/or migrate to the BSA and potential direct impacts may occur.

Therefore, to avoid and minimize potential effects to south coast branching phacelia, **MM BIO-13** would be implemented, which includes requirements for compensatory mitigation if this species is found within the impact footprint during subsequent pre-construction plant survey required pursuant to **MM BIO-5.**

With implementation of **MM BIO-5** and **MM BIO-13,** Alternative 2 may affect but not likely adversely affect south coast branching phacelia.

Woolly Seablite (*Suaeda taxifolia*)

Woolly seablite was reported in the western portion of the BWER. Approximately 85 individuals were observed on the edge of coastal brackish marsh of the BWER. The marsh communities in the BSA may represent suitable habitat for the species. No woolly seablite were present in the BSA during the 2017 surveys and no adverse effect on this species would occur if determined absent. Given the presence of this species in the BWER; however, it is possible that the nearby population will expand and/or migrate to the BSA and potential direct impacts may occur.

Therefore, to avoid and minimize potential effects to woolly seablite, **MM BIO-13** would be implemented, which includes requirements for compensatory mitigation if this species is found within the impact footprint during subsequent pre-construction plant survey required pursuant to **MM BIO-5.**

With implementation of **MM BIO-5** and **MM BIO-13,** Alternative 2 would have no adverse cumulative effects to this species.

City Protected Tree and Shrub Ordinance

Trees and shrubs protected by the City of Los Angeles Municipal Code (Article 6 Preservation of Protected Trees Sections 46.00 to 46.06) may be present in the BSA, including California Live Oak (*Quercus agrifolia*) and Western Sycamore (*Platanus racemose*). Therefore, as required by **MM BIO-14,** during final design and prior to any Project-related vegetation removal, a certified arborist shall assess all trees and shrubs identified for removal to determine if they would be considered protected based on the City of Los Angeles Municipal Code. If any protected trees or shrubs would need to be removed as part of Alternative 2, then a permit would be required from the City's Board of Public Works, which would ensure that appropriate tree replacement occurs.

<u>Operational Effects</u>

Alternative 2 would have no operational effects related to plants.

<u>Cumulative Effects</u>

Alternative 2 would result in temporary effects to Lewis' evening-primrose, which would be mitigated through restoration activities. Alternative 2 may also result in the removal of suffrutescent wallflower, south coast branching phacelia, and woolly seablite if these species were to migrate onto the site from nearby areas,

The Ballona Wetlands Restoration Project would result in the temporary loss of the approximately 12,300 Lewis' evening-primrose individuals previously observed in the BWER as well as 85 woolly seablite individuals. If the construction schedule were to overlap with the Ballona Wetlands Restoration Project, the temporary loss of natural-occurring seed propagation has potential to be substantial for these plant species. However, CDFW is implementing the Ballona Wetlands Restoration Project in phases; therefore, impacts to all of the Lewis' evening-primrose and woolly seablite would not occur all at one time. Furthermore, impacts to Lewis' evening-primrose and woolly seablite that occur as part of the Ballona Wetlands Restoration Project would need to be mitigated for. As such, there would be no net loss of these plant species. According to the Draft EIR for the Ballona Wetlands Restoration Project, the restoration project would not result in any impacts to suffrutescent wallflower or south coast branching phacelia.

Therefore, given that impacts to Lewis' evening-primrose and woolly seablite would occur over time and because impacts would be required to be mitigated in coordination with the resource agencies, no substantial adverse effects on plants would result from Alternative 2 when evaluated in combination with other cumulative projects.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. Construction of Alternative 2A would not include the re-grading of areas beyond the edge of the future sidewalk at a 2:1 slope west of SR-1/Lincoln Boulevard at this location since a retaining wall would be built instead to avoid these impacts. Therefore, there would be fewer direct impacts to plants with Alternative 2A when compared to Alternative 2. These areas consist primarily of disturbed non-native stands of mustard in existing conditions, with a small patch of quailbush scrub, which would be re-planted with native plant species once construction work is completed. This would lead to improved biological conditions of these areas in the long-term with Alternative 2 that would not occur with Alternative 2A since Alternative 2A would not remove non-native invasive species in these areas and would not replant them with native species. In summary, Alternative 2A would result in fewer temporary construction effects to the BWER and to plants, but Alternative 2A would not result in re-planting of a slope that is currently covered with non-native invasive grasses. Otherwise, Alternative 2A would result in the same construction effects related to plants as Alternative 2.

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER and the west side of SR-1/Lincoln Boulevard north of Culver Boulevard. Alternative 2A would not result in the replanting of the slope west of SR-1/Lincoln Boulevard in the BWER with native plant species since this area would not be graded during construction as would occur with Alternative 2.

<u>Operational Effects</u>

Operational effects would be the same as for Alternative 2.

<u>Cumulative Effects</u>

Cumulative effects would be the same as for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

<u>Construction Effects</u>

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which contains a portion of the Fiji Ditch and the Quailbush Scrub vegetation community. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard which contains a portion of Fiji Ditch and California Bulrush Marsh and Quailbush Scrub vegetation communities.

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch and consists of Quailbush Scrub vegetation community. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard and contains a portion of Fiji Ditch and California Bulrush Marsh and Quailbush Scrub vegetation communities.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and that are identified as open space land uses. There would be increased temporary construction effects to Menzie's Golden Bush Scrub and upland mustards vegetation communities. Menzie's Golden Bush Scrub is considered a sensitive natural community by the CDFW.

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER. These areas contain Menzie's Golden Bush Scrub and upland mustards vegetation communities. Menzie's Golden Bush Scrub is considered a sensitive natural community by the CDFW.

Operational Effects

Cumulative effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

<u>Construction Effects</u>

Alternative 2D would be the same as Alternative 2 except that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900.

Alternative 2D would require additional grading and permanent improvements within APN 4211-015-900 that would not be constructed under Alternative 2. This area is a part of the BWER and it currently contains semi-natural herbaceous stand and Menzie's golden bush scrub vegetation communities. Menzie's Golden Bush Scrub is considered a sensitive natural community by the CDFW.

<u>Operational Effects</u>

Operational effects would be the same as for Alternative 2.

<u>Cumulative Effects</u>

Cumulative effects would be the same as for Alternative 2.

Avoidance, Minimization, and/or Mitigation Measures

MM BIO-1 through **MM BIO-5** would be implemented to avoid and minimize effects.

Also, specifically relating to plants, Alternative 2 would implement the following measures.

- **MM BIO-12:** The City shall mitigate for permanent impacts to Lewis' evening-primrose at a minimum of 1:1 ratio (number of plants established: number of plants impacted) using one of the following means:
  - By incorporating Lewis' evening-primrose into the planting plan for the temporarily impacted areas of the BWER;

  - By incorporating Lewis' evening-primrose into a Habitat Mitigation and Monitoring Plan (HMMP) for City-controlled lands that are adjacent to the BWER; or
  - Providing funding to CDFW to establish Lewis' evening-primrose within the BWER.

- **MM BIO-13**: If suffrutescent wallflower, south coast branching phacelia, or woolly seablite are determined to be present with the impact area per the survey results from **MM BIO-5**, the City shall mitigate for permanent impacts to the species at a minimum 1:1 ratio (number of plants established: number of plants impacted) using one of the following means:

  - By incorporating the species into the planting plan for the temporarily impacted areas of the BWER;
  - By incorporating the species into a Habitat Mitigation and Monitoring Plan (HMMP) for City-controlled lands that are adjacent to the BWER; or
  - Providing funding to CDFW to establish the species within the BWER.

  If the survey results associated with **MM BIO-5**, finds the species is absent, no further mitigation would be needed.

- **MM BIO-14:** During final design and prior to any Project-related vegetation removal, a certified arborist shall assess all trees and shrubs identified for removal to determine if they would be considered protected based on the City of Los Angeles Municipal Code. If any protected trees or shrubs would need to be removed as part of Alternative 2, then a permit would be required from the City's Board of Public Works, which would ensure that appropriate tree replacement occurs.

2.3.4 Animal Species

Regulatory Setting

Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703–711), as amended in 1972, makes it unlawful at any time, by any means or in any manner (unless permitted), to "pursue; hunt; take; capture; kill; attempt to take, capture, or kill; possess; offer for sale; sell; offer to barter; barter; offer to purchase; purchase; deliver for shipment; ship; export; import; cause to be shipped, exported or imported; deliver for transportation; transport or cause to be transported; carry or cause to be carried; or receive for shipment, transportation, carriage, or export, any migratory bird; any part, nest, or eggs of any such bird; or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof" (16 USC 703).

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. This regulation seeks to protect migratory birds and active nests. The MBTA protects over 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species. Bird species protected under the provisions of the MBTA are identified by the List of Migratory Birds (50 CFR 10.13), as updated by the 1983 American Ornithologists' Union (AOU) Checklist and published supplements by the USFWS.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: *Accipitridae* (kites, hawks, and eagles); *Cathartidae* (New World vultures); *Falconidae* (falcons and caracaras); *Pandionidae* (ospreys); *Strigidae* (typical owls); and *Tytonidae* (barn owls). The provisions of the 1972 amendment to the MBTA protect all species and subspecies of these families.

On December 22, 2017, the Department of the Interior Office of the Solicitor released Memorandum M-37050 stating that the MBTA's "taking" or "killing of migratory birds applies only to deliberate acts such as hunting intended to take a migratory bird. This administration will not seek criminal penalties against companies and individuals who incidentally take migratory birds through otherwise lawful activities." This reverses the previous administration's interpretation, which issued Memorandum M-37041 stating that the MBTA applied to both intentional and incidental take. However, because of the court's split interpretation on the MBTA, it is recommended that companies continue to implement BMPs to mitigate impacts on migratory birds.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC 668) provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*) by prohibiting, except under certain specified conditions, the taking, possession, and commerce of such birds. The 1972 amendments increased penalties for violating provisions of the Act and strengthened other enforcement measures. A 1978 amendment authorizes the Secretary of the Interior to permit the taking of golden eagle nests that interfere with resource development or recovery operations.

A 1994 Memorandum from President William Clinton to the heads of Executive Agencies and Departments establishes the policy concerning collection and distribution of eagle feathers for Native American religious purposes.

California Fish and Game Code – Unlawful Take or Destruction of Nests or Eggs

These sections duplicate federal protection under the MBTA. Section 3503 of the California Fish and Game Code makes it unlawful to take, possess, or destroy any bird's nest or any bird's eggs. Further, any birds in the orders *Falconiformes* or *Strigiformes* (birds of prey, such as hawks, eagles, and owls) and their nests and eggs are protected under Section 3503.5 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the take and possession of any migratory nongame bird, as designated in the MBTA.

California Fish and Game Code – California Fully Protected Species

The State of California created the "Fully Protected" classification in an effort to identify and provide additional protection to those animals that are rare or that face possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under the CESA and/or FESA; however, some have not been formally listed.

Various sections of the California Fish and Game Code provide lists of Fully Protected reptiles and amphibians (§ 5050), bird (§ 3511), and mammal (§ 4700) species that may not be taken or possessed at any time, except as provided in Sections 2081.7, 2081.9, or 2835.

California Fish and Game Code – Sections 4150 through 4154

California Fish and Game Code Sections 4150 through 4154 state that nongame mammals (e.g., all mammals occurring naturally in California which are not game mammals, fully protected mammals, or fur-bearing mammals) or parts thereof may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the Fish and Game Commission.

California Fish and Game Code – California Fish and Game Code – Section 4500

This section duplicates federal protection under the MMPA. Section 4500 of the California Fish and Game Code makes it unlawful to take any marine mammal, including sea otters, whales, dolphins, porpoises, seals, and sea lions.

Environmental Setting

Common Animal Species

Animal species that were observed within the BSA during past field surveys and are listed in the Wildlife Compendium, which is provided in the NES. The Wildlife Compendium identifies which species observed are non-native or invasive species.

<u>Fish</u>

Permanent water is present within Ballona Creek, with connectivity to the Pacific Ocean. Permanent water is also present in the freshwater marsh that is located outside of the limits of disturbance for Alternative 2 within the southwestern portion of the BSA. Fish that could occur in the BSA include those previously observed in the tide channels, Fiji Ditch, and Ballona Creek as part of the monitoring program in the vicinity of the BSA, which include arrow goby (*Clevelandia ios*), bat ray (*Myliobatis californica*), California halibut (*Paralichthys californicus*), California killifish (*Fundulus parvipinnis*), California lizardfish (*Synodus lucioceps*), diamond turbot (*Hypsopsetta guttulata*), giant kelpfish (*Heterostichus rostratus*), kelp bass (*Paralabrax clathratus*), longjaw mudsucker (*Gillichthys mirabilis*), pacific staghorn sculpin (*Leptocottus armatus*), round stingray (*Urolophus halleri*), specklefin midshipman (*Porichthys myriaster*), striped mullet (*Mugil cephalus*), topsmelt (*Atherinops affinis*), and western mosquitofish (*Gambusia affinis*).

<u>Amphibians</u>

Amphibians require moisture for at least a portion of their life cycle, and many require standing or flowing water for reproduction. Terrestrial species may or may not require standing water for reproduction; they survive in dry areas by aestivating (e.g., remaining beneath the soil in burrows or under logs and leaf litter and emerging only when temperatures are low, and humidity is high). Many of these species' habitats are associated with water, and they emerge to breed once the rainy season begins. Soil moisture conditions can remain high throughout the year in some habitat types, depending on factors such as amount of vegetation cover, elevation, and slope/aspect.

Amphibians observed in the BSA include American bullfrog (*Lithobates catesbeianus*), which is invasive, and Baja California treefrog (*Pseudacris hypochondriaca*). Another amphibian observed during a nearby monitoring program include garden slender salamander (*Batrachoseps major major*). Another amphibian expected to occur is western toad (*Anaxyrus boreas*).

<u>Reptiles</u>

Reptiles are well-adapted to life in arid habitats. They have several physiological adaptations that allow them to conserve water. Reptiles can also become dormant during weather extremes, allowing them to survive prolonged droughts and paucity of food. Reptilian diversity and abundance typically varies with vegetation type and character.

Reptiles observed in the BSA include western fence lizard (*Sceloporus occidentalis*) and common side-blotched lizard (*Uta stansburiana*). Other reptiles expected to occur and observed during a nearby monitoring program include red-eared slider (*Trachemys scripta elegans*), southern alligator lizard (*Elgaria multicarinata*), San Bernardino ring-necked snake (*Diadophis punctatus modestus*), California kingsnake (*Lampropeltis californiae*), gophersnake (*Pituophis catenifer*), and southern pacific rattlesnake (*Crotalus oreganus helleri*).

<u>Birds</u>

Several bird species are expected to occur in the BSA and to use the habitats throughout the year. Bird species observed in the BSA during surveys include Canada goose (*Branta canadensis*), blue-winged teal (*Spatula discors*), cinnamon teal (*Spatula cyanoptera*), gadwall (*Mareca strepera*), mallard (*Anas platyrhynchos*), ruddy duck (*Oxyura jamaicensis*), mourning dove (*Zenaida macroura*), white-throated swift (*Aeronautes saxatalis*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), sora (*Porzana carolina*), American coot (*Fulica americana*), killdeer (*Charadrius vociferous*), willet (*Tringa semipalmata*), western gull (*Larus occidentalis*), double-crested cormorant (*Phalacrocorax auritus*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), snowy egret (*Egretta thula*), green heron (*Butorides virescens*), black-crowned night-heron (*Nycticorax nycticorax*), belted kingfisher (*Megaceryle alcyon*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), ash-throated flycatcher (*Myiarchus cinerascens*), Cassin's kingbird (*Tyrannus vociferans*), western kingbird (*Tyrannus verticalis*), least Bell's vireo, American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), tree swallow (*Tachycineta bicolor*), northern rough-winged swallow (*Stelgidopteryx serripennis*), barn swallow (*Hirundo rustica*), bushtit (*Psaltriparus minimus*), Bewick's wren (*Thryomanes bewickii*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), which is invasive, house sparrow (*Passer domesticus*), which is invasive, American pipit (*Anthus rubescens*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), spotted towhee (*Pipilo maculatus*), California towhee (*Melozone crissalis*), song sparrow (*Melospiza melodia*), yellow-breasted chat (*Icteria virens*), red-winged blackbird (*Agelaius phoeniceus*), great-tailed grackle (*Quiscalus mexicanus*), orange-crowned warbler (*Oreothypis celata*), common yellowthroat (*Geothlypis trichas*), yellow warbler (*Setophaga petechia*), and yellow-rumped warbler (*Setophaga coronata*).

Other species are expected to be present within the BSA only during certain seasons. For example, the white-crowned sparrow (*Zonotrichia leucophrys*) is expected to occur in the BSA during the winter and migrates to the northern forests for breeding in the spring. Various migrant species are expected to occur in the BSA and are present for only part of the year. For example, the Bullock's oriole (*Icterus bullockii*) is expected to occur as a migrate into the region for breeding.

Raptor species observed in the BSA include northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*). Other raptors expected to occur in the BSA include turkey vulture (*Cathartes aura*), osprey (*Pandion haliaetus*), white-tailed kite (*Elanus leucurus*), barn owl (*Tyto alba*), and great horned owl (*Bubo virginianus*).

<u>Mammals</u>

Small or medium-sized mammals observed in the BSA include California ground squirrel *(Otospermophilus beecheyi*) and desert cottontail (*Sylvilagus audubonii*). Small mammal species observed during the monitoring program near the BSA include western harvest mouse (*Reithrodontomys megalotis*) and south coast marsh vole *(Microtus californicus stephensi*). Medium and large mammal species expected to occur and observed during the monitoring program near the BSA include Virginia opossum (*Didelphis virginiana*), eastern fox squirrel (*Sciurus niger*), coyote (*Canis latrans*), striped skunk (*Mephitis mephitis*), and northern raccoon (*Procyon lotor*).

Bats occur throughout most of Southern California and may use any portion of the BSA as foraging habitat. Most of the bats that could potentially occur in the BSA are inactive during the winter and either hibernate or migrate, depending on the species. Bats observed during the monitoring program near the BSA include Brazilian free-tailed bat (*Tadarida brasiliensis*), hoary bat (*Lasiurus cinereus*), silver-haired bat (*Lasionycteris noctivagans*), and Yuma bat (*Myotis yumanensis*). Bats may roost in trees or in structures including buildings and under bridges.

Wildlife Movement

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information. Corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move in their home ranges in search of food, water, mates, and other necessary resources.

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (e.g., foraging for food or water; defending territories; or searching for mates, breeding areas, or cover). A number of terms such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing" have been used in various wildlife movement studies to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and to facilitate the discussion on wildlife movement in this analysis, these terms are defined as follows:

1. ***Travel route –*** a landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and to provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It contains adequate food, water, and/or cover while moving between habitat areas; and it provides a relatively direct link between target habitat areas.
2. ***Wildlife corridor –*** a piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bound by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and to facilitate their movement while in the corridor. Larger, landscape-level

corridors (often referred to as "habitat linkages" or "landscape linkages") can provide both transitory and resident habitat for a variety of species.

3. ***Wildlife crossing –*** a small, narrow area, relatively short in length and generally constricted in nature that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are man-made and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These often represent "choke points" along a movement corridor, which may impede wildlife movement and increase the risk of predation.

It is important to note that in a large, open space area with few or no man-made or naturally occurring physical constraints to wildlife movement, wildlife corridors (as defined above) may not yet exist. Given an open space area that is both large enough to maintain viable populations of species and to provide a variety of travel routes (e.g., canyons, ridgelines, trails, riverbeds, and others), wildlife will use these "local" routes while searching for food, water, shelter, and mates and will not need to cross into other large, open space areas. Based on their size, location, vegetative composition, and availability of food, some of these movement areas (e.g., large drainages and canyons) are used for longer lengths of time and serve as source areas for food, water, and cover, particularly for small- and medium-sized animals. This is especially true if the travel route is within a larger open space area. However, once open space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles (such as roads and highways), the remaining landscape features or travel routes that connect the larger open space areas become corridors as long as they provide adequate space, cover, food, and water and do not contain obstacles or distractions (e.g., man-made noise, lighting) that would generally hinder wildlife movement.

In general, wildlife corridor discussions typically focus on larger, more mobile mammal species such as southern mule deer (*Odocoileus hemionus*), mountain lion (*Puma concolor*), and coyote. Discussing the needs of larger mammal species typically also captures the needs of mid-sized mammals such as foxes (*Vulpes* sp.), northern raccoon, striped skunk, and American badger (*Taxidea taxus*). Most mammal species have relatively large home ranges through which they move to find adequate food, water, and breeding and wintering habitat. It is assumed that corridors that serve larger, more mobile mammal species also serve as corridors for many smaller, less mobile species, such as reptiles, amphibians, and rodents. Regional movement for these species facilitates gene flow and requires at least some local "steppingstone" movement of individuals between populations.

Discussions of wildlife corridors generally focus less on bird species because they are more mobile and can fly over inhospitable habitat. Long-distance migrants are able to move great distances over unsuitable habitat; however, they must have stopover sites to rest and forage in order to continue their migration. Many resident species are habitat-specific, moving only through their preferred habitat type(s), or similar adjacent habitat; wildlife corridors would be more important for these bird species.

Ideally, an open space corridor should encompass a heterogeneous mix of vegetation types to accommodate the ecological requirements of a wide variety of resident species in any particular region. Most species typically prefer adequate vegetation cover during movement, which can serve as both a food source and as protection from weather and predators. Drainages, riparian areas, and forested canyon bottoms typically serve as natural movement corridors because these features provide cover, food, and often water for a variety of species. Very few species will move across large expanses of open, uncovered habitat unless it is the only option available to them. Landscape linkages must also provide “live-in” habitat (food and cover) to support smaller and less mobile species, such as amphibians, reptiles, and rodents, that require longer periods to traverse a corridor.

Regional Movement

The BSA is located in an isolated fragment of coastal open space (e.g., the BWER) within a highly urbanized landscape. The BWER is entirely surrounded by development, including high-density residential, commercial areas, and a marina. The BWER is an important stopover for migratory birds traveling the Pacific Flyway migration route but does not fall within any identified terrestrial movement routes for wildlife. Regional terrestrial wildlife movement outside the BWER is very limited. The only semi-natural features that could act as wildlife corridors consist of Ballona Creek and an approximate 300-foot-wide strip of vegetation along Cabora Drive. Neither of these areas connect the BSA to larger areas of open space east of the BSA. Ballona Creek would offer limited opportunities for wildlife movement because it has concrete banks and abuts development for much of its length; it also goes underground at Venice Boulevard, approximately seven miles upstream of SR-1/Lincoln Boulevard. The only open space area along Ballona Creek consists of the Blair Hills, but Jefferson Boulevard acts as a barrier to movement between the creek and that open space. The strip of vegetation along Cabora Drive extends east approximately 2.5 miles to I-405; however, it is entirely surrounded by development. West of the BSA, Ballona Creek and the BWER connect to the beach and Pacific Ocean. Wildlife may move along the beach south to open space in the El Segundo Blue Butterfly Habitat Restoration Area adjacent to Los Angeles International Airport. The airport is approximately 3,500 acres.

Local Movement

Locally, wildlife may move within the BWER. This area is generally undeveloped and contains a variety of vegetation such as estuarine and brackish marsh, freshwater marsh and riparian habitats, seasonal wetlands, and uplands. Wildlife movement within this area is relatively unhindered. However, the existing roads (e.g., SR-1/Lincoln Boulevard, Culver Boulevard, and Jefferson Boulevard) and associated chain link fencing provide a barrier to wildlife movement. Roads and vehicle traffic may result in direct mortalities, habitat fragmentation, and behavioral changes in wildlife (e.g., road avoidance due to visual disturbance, traffic noise, pollutants, etc.).

A study of vehicle hits on the BWER found a total of 654 kills over the three-year survey period. Desert cottontail experienced the highest mortality (29.4%), with other small mammals making up the majority of the losses (unknown 23.9%, small animal 17.0%, squirrel 8.7%, and Virginia opossum 5.0%). Birds accounted for 5.7% of mortalities while medium and large animals and miscellaneous other species accounted for fewer than 5% of the mortalities.

Fish Passage

Fish movement within Ballona Creek in the BSA is generally unrestricted. There are two existing bridges over the creek in the BSA, which include Culver Boulevard and SR-1/Lincoln Boulevard, and one downstream at Pacific Avenue. Each of these existing bridges have three elongated, concrete piers in the channel and an abutment at the top of each bank. There is also a debris boom spanning the channel between the Culver Boulevard and SR-1/Lincoln Boulevard bridges over Ballona Creek. The piers do not constrain fish movement and the debris boom floats thereby allowing for fish movement underneath the skirt.

Special Status Wildlife

Table 2.3.4-1 provides a summary of special status wildlife species reported to occur in the vicinity of the BSA and includes information on the status, general habitat description, habitat suitability of the BSA, and potential for the species to occur; species observed during surveys are noted. This list includes species reported by the CNDDB, those on the USFWS official species list, and species considered in the Draft EIR prepared for the Ballona Wetlands Restoration Project; it is supplemented with species from the Project biologist’s experience that either occur nearby or could occur based on the presence of suitable habitat. Figure 2.3.3-1, in Chapter 2.3.1, Natural Communities, shows the locations of special status species observed during surveys.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Invertebrate					
Aglaothorax longipennis	Santa Monica shieldback katydid	SA	Occur nocturnally in chaparral and canyon stream bottom vegetation, in the Santa Monica Mountains of Southern California. Inhabit introduced ice plant and native chaparral plants.	A	Not expected to occur. No suitable habitat in the BSA and the only known occurrence/population occurs in the Santa Monica mountains.
Bombus crotchii	Crotch bumble bee	SA; CE	Coastal California east to the Sierra-Cascade crest and south into Mexico. Occurs in grassland and scrub habitats. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	HP	Moderate potential to occur. Suitable habitat in the BSA and reported at BWER, just southwest of the BSA. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Branchinecta sandiegonensis	San Diego fairy shrimp	FE	Endemic to San Diego and Orange County mesas. Occurs in vernal pools and ponding areas.	A	Not expected to occur. No suitable habitat in the BSA and no known occurrences in the county.
Brennania belkini	Belkin's dune tabanid fly	SA	Inhabits coastal sand dunes of Southern California.	A	Not expected to occur. No suitable habitat (e.g., sand dune) in the BSA.
Carolella busckana	Busck's gallmoth	SA	Occurs in coastal dunes and coastal scrub.	HP	Low potential to occur. Suitable coastal scrub habitat in the BSA but not observed during terrestrial invertebrate surveys of the BWER.

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Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Cicindela gabbii	western tidal-flat tiger beetle	SA	Inhabits estuaries and mudflats along the coast of Southern California. Generally found on dark-colored mud in the lower zone; occasionally found on dry saline flats of estuaries.	HP	Low Potential to occur. Suitable habitat in the BSA but both CNDDB occurrences for the county are believed to be extirpated or presumably extirpated (CDFW 2023).
Cicindela hirticollis gravida	sandy beach tiger beetle	SA	Inhabits clean, dry, light-colored sand in the upper zone, adjacent to non-brackish water along the coast of California.	HP	Low potential to occur. Suitable habitat in the BSA but all reported CNDDB occurrences for the county are believed to be extirpated (CDFW 2023).
Cicindela senilis frosti	senile tiger beetle	SA	Inhabits marine shoreline to salt marshes.	HP	Low potential to occur. Suitable habitat in the BSA but all reported CNDDB occurrences for the county are believed to be extirpated (CDFW 2023).
Coelus globosus	globose dune beetle	SA	Inhabitant of coastal sand dune habitat. Inhabits foredunes and sand hummocks; it burrows beneath the sand surface and is most common beneath dune vegetation.	A*	Not expected to occur. No suitable habitat (e.g., sand dune) in the BSA but observed during terrestrial invertebrate surveys of the BWER (CDFW 2017a; 2001 record, CDFW 2023), in an area west of the BSA.
Danaus plexippus pop. 1	monarch - California overwintering	SA	Winter roost sites extend along the coast. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	A*	Not expected to occur. Observed during surveys of the BWER, southwest of the BSA; however, no narrow-leaved milkweed or suitable overwintering habitat was observed within the BSA.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Eucosma hennei	Hen's eucosman moth	SA	Endemic to the El Segundo Dunes. Larval food plant is *Phacelia ramosissima* var. *austrolitoralis*; larvae can be found on woody stems and upper root parts.	A	Not expected to occur. No suitable habitat (e.g., sand dune, host plants) in the BSA and not observed during terrestrial invertebrate surveys of the BWER.
Euphilotes battoides allyni	El Segundo blue butterfly	FE	Restricted to remnant coastal dune habitat. Host plant is *Eriogonum parvifolium*; larvae feed only on the flowers and seeds; used by adults as major nectar source.	A*	Not expected to occur. No suitable habitat (e.g., coastal dune, host plants) in the BSA but observed during surveys of the BWER in an area west of the BSA. Otherwise, the other nearest known population is located approximately 2 miles southwest of the BSA (2005 record, CDFW 2023).
Euphydryas editha quino	Quino checkerspot butterfly	FE	Sunny openings within chaparral & coastal sage shrublands in parts of Riverside & San Diego counties. Hills and mesas near the coast. Need high densities of food plants *Plantago erecta*, *Plantago insularis*, and *Orthocarpus purpurescens*.	A	Not expected to occur. No suitable habitat and not observed during terrestrial invertebrate surveys of the BWER. This species is considered extirpated from Los Angeles County (CDFW 2023).
Glaucopsyche lygdamus palosverdesensis	Palos Verdes blue butterfly	FE	Restricted to the cool, fog-shrouded, seaward side of Palos Verdes Hills, Los Angeles County. Host plant is *Astragalus trichopodus* var. *lonchus* (locoweed).	A	Not expected to occur. Restricted to Palos Verdes Hills (approximately 13 miles south of the BSA). No suitable habitat and no host plants present, and not observed during terrestrial invertebrate surveys of the BWER.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Onychobaris langei	Lange's El Segundo Dune weevil	SA	Known from El Segundo Dunes.	A*	Not expected to occur. No suitable habitat (e.g., sand dune) in the BSA but observed during terrestrial invertebrate surveys in the dune system at BWER.
Panoquina errans	wandering (=saltmarsh) skipper	SA	Occurs in coastal salt marshes. Requires moist saltgrass for larval development.	HP	High potential to occur. Suitable habitat in the BSA and reported at BWER (2010 record, CDFW 2023), west of the BSA.
Rhaphiomidas terminatus	El Segundo flower-loving fly	SA	Occurs in coastal dunes. Presumed extinct but recently discovered on Malaga Dunes, Los Angeles County.	A	Not expected to occur. No suitable habitat (e.g., sand dune) in the BSA and not observed during terrestrial invertebrate surveys for the BWER.
Socalchemmis gertschi	Gertsch's socalchemmis spider	SA	Occurs in sage scrub, chaparral, oak woodland, coniferous forest, generally in rocky outcrops or talus slopes in non-arid climates. Known from only 2 localities in Los Angeles County: Brentwood (type locality) and Topanga Canyon.	HP	Low potential to occur. Suitable habitat in the BSA but not observed during terrestrial invertebrate surveys for the BWER.
Streptocephalus woottoni	Riverside fairy shrimp	FE	Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabit seasonally astatic pools filled by winter/spring rains.	A	Not expected to occur. No suitable habitat in the BSA. The nearest known occurrence is located approximately 1.3 miles southwest of the BSA (2005 record, CDFW 2023) and this occurrence/species is believed to be extirpated.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Trigonoscuta dorothea	Dorothy's El Segundo Dune weevil	SA	Occurs in coastal sand dunes in Los Angeles County.	A*	Not expected to occur. No suitable habitat (e.g., sand dune) in the BSA but observed in 1995, 1996, and 2001 terrestrial invertebrate surveys in the dune system at BWER. Was not detected in 2009 and 2011 terrestrial invertebrate surveys.
Tryonia imitator	mimic tryonia (=California brackish snail)	SA	Inhabits coastal lagoons, estuaries and salt marshes. Found only in permanently submerged areas in a variety of sediment types; able to withstand a wide range of salinities.	HP	Moderate potential to occur. Suitable habitat in the BSA and has been reported along Ballona Creek, just southwest of the BSA (1974 record, CDFW 2023), but this record is considered possibly extirpated.
Fish					
Catostomus santaanae	Santa Ana sucker	FT	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae. Although Santa Ana sucker has generalized stream habitat requirements, it is intolerant of polluted or highly modified streams (Moyle et al. 1995).	A	Not expected to occur. No suitable freshwater aquatic habitat in the BSA but BSA outside of current known range (Moyle 2002). Nearest known occurrence is approximately 21 miles northeast of the BSA (2007 record, CDFW 2023).

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Eucyclogobius newberryi	tidewater goby	FE; SSC	Brackish water habitats along California. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	A	Not expected to occur. No suitable freshwater aquatic habitat in the BSA but the only known occurrence for the county is approximately 15 miles northwest of the BSA (1995 record, CDFW 2023), this population was once extirpated but reintroduced in 1991.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE; SE; FP	Occurs in weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams.	A	Not expected to occur. No suitable freshwater aquatic habitat in the BSA but no known occurrences in the vicinity of the BSA (CDFW 2023). Nearest known occurrence is approximately 30 miles north of the BSA (1999 record, CDFW 2023).
Gila orcuttii	arroyo chub	SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave and San Diego River basins. Occurs in slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	A	Not expected to occur. No suitable freshwater aquatic habitat in the BSA but no known occurrences in the vicinity of the BSA (CDFW 2023). Nearest known occurrence is approximately 17 miles north of the BSA (1975 record, CDFW 2023).

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Oncorhynchus mykiss irideus population 10	steelhead - southern California DPS	FE	Found in pools, lagoons, streams.	HP	Low potential to occur. Limited suitable aquatic habitat but no spawning conditions in the BSA. Observed within Ballona Creek approximately 2.5 miles upstream of the Marina Freeway overpass in 2008; however, focused aquatic surveys from 2009-2011 have not detected this species on the project site. The nearest known occurrences/populations occur in the Santa Monica Mountains. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Rhinichthys osculus	Santa Ana speckled dace	SSC	Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	A	Not expected to occur. No suitable freshwater habitat in the BSA but no known occurrences in the vicinity of the BSA (CDFW 2023) and currently have a limited distribution in headwaters of the Santa Ana and San Gabriel Rivers (Moyle et al. 1995).
Siphateles bicolor mohavensis	Mohave tui chub	FE; SE, FP	Endemic to the Mojave River basin, adapted to alkaline, mineralized waters. Needs deep pools, ponds, or slough-like areas. Needs vegetation for spawning.	A	Not expected to occur. BSA outside of current known range. No known occurrences in the vicinity of the BSA.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Amphibians					
Anaxyrus californicus	arroyo toad	FE; SSC	Occurs in semi-arid regions near washes or intermittent streams. Requires shallow, slow-moving stream and riparian habitat (Thomson, Wright and Shaffer 2016).	A	Not expected to occur. No suitable habitat in the BSA, BSA outside of current known range, and not observed during surveys for the BWER.
Rana draytonii	California red-legged frog	FT; SSC	Occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Chiefly inhabits ponds, although it also uses marshes, streams, lagoons, and other waterways throughout most of its range (Thomson, Wright and Shaffer 2016). In southern California it seems to favor slow-flowing streams rather than ponds or pools (Thomson, Wright and Shaffer 2016).	HP	Not expected to occur. Suitable habitat in the BSA but has not been reported in the vicinity and not observed during surveys for the BWER. Nearest known occurrence/population is approximately 20 miles northwest of the BSA
Spea hammondii	western spadefoot	FC, SSC	Occurs in grasslands, oak woodlands, coastal sage scrub, and chaparral vegetation in washes, floodplains, alluvial fans, playas, and alkali flats (Stebbins 2003). Vernal pools are essential for breeding and egg-laying.	HP	Low potential to occur. Limited suitable breeding habitat with suitable upland habitat in the BSA but has not been reported in the vicinity, and not observed during surveys for the BWER.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Reptiles					
Anniella stebbinsi	southern California legless lizard	SSC	Occurs in variety of habitats; generally, in moist, loose soil under sparse vegetation. They prefer soils with a high moisture content.	HP	High potential to occur. Suitable habitat in the BSA and observed during surveys of the BWER; however, not observed in BSA during surveys conducted for this Project.
Aspidoscelis tigris stejnegeri	coastal whiptail	SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas.	HP	Low potential to occur. Suitable habitat in the BSA but has not been reported in the vicinity and BSA outside of current known range (Thomson, Wright and Shaffer 2016).
Chelonia mydas	green sea turtle	FT	Marine. Completely herbivorous, needs adequate supply of sea grasses and algae.	HP	Low potential to occur in Ballona Creek. Limited suitable habitat in Ballona Creek. While Pacific greens commonly occur from San Diego southward, they have an established population at the Los Cerritos Wetlands, 30 miles to the south. Rare sightings are reported in Ballona Creek (CDFW 2017a). ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Diadophis punctatus modestus	San Bernardino ringneck snake	SA	Most common in open, relatively rocky areas. Often in somewhat moist microhabitats near intermittent streams.	HP	High potential to occur. Suitable habitat in the BSA and observed during surveys of the BWER; however, not observed in BSA during surveys conducted for this Project.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Emys marmorata	western pond turtle	FC, SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 feet elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometer from water for egg-laying.	HP	Low potential to occur. Suitable habitat in the BSA but not observed during recent surveys of the BWER. Historically reported from the BWER of the BSA (1941 record, CDFW 2023), but this population is considered possibly extirpated.
Phrynosoma blainvillii	coast horned lizard	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.	HP	Low potential to occur. Suitable habitat in the BSA. Known to occur at El Segundo Dunes.
Thamnophis hammondi	two-striped garter snake	SSC	Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	HP	Low potential to occur. Suitable habitat in the BSA but has not been reported in the vicinity (Thomson, Wright and Shaffer 2016) and not observed during surveys for the BWER.
Thamnophis sirtalis ssp.	south coast garter snake	SSC	It is restricted to marsh and upland habitats near permanent water with good strips of riparian vegetation where adequate prey and refuge can be found.	HP	Moderate potential to occur. Suitable habitat in the BSA and has been reported in the vicinity (Thomson, Wright and Shaffer 2016) but not observed during surveys for the BWER.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Birds					
Accipiter cooperii	Cooper's hawk	WL (nesting)	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks. Has become increasingly suburban-tolerant (Allen, Garrett, and Wimer 2016).	HP/P (foraging and nesting)	**Observed.** Suitable foraging and nesting habitat in the BSA.
Accipiter striatus	sharp-shinned hawk	WL (nesting)	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 275 feet of water.	HP (foraging) A (nesting)	High potential to occur for foraging, mainly expected occur in the winter but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. Nests outside the BSA region.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Throughout this bird’s breeding range, acceptable breeding habitat shares two characteristics: rocky hillsides with moderate to steep slope, and an open mix of short perennial plants interspersed with patches of grass, rock, or bare ground (Allen, Garrett, and Wimer 2016).	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat and has not been reported breeding in the vicinity (Allen, Garrett, and Wimer 2016).

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Ammodramus savannarum	grasshopper sparrow	SSC (nesting)	Occurs in dense grasslands on rolling hills, lowland plains, in valleys & on hillsides on lower mountain slopes. Prefers native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	HP (foraging) A (nesting)	Moderate potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Limited suitable foraging and nesting habitat in the BSA but has not been reported breeding in the vicinity (Allen, Garrett, and Wimer 2016).
Agelaius tricolor	tricolored blackbird	ST, SSC (nesting colony)	Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Suitable habitat in the BSA but has not been reported breeding in the vicinity. This species has been very nearly extirpated as a breeder on the coastal slope of the county. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Artemisiospiza belli belli	Bell's sage sparrow	WL	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range.	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Limited suitable foraging habitat in the BSA but has not been reported breeding in the vicinity (Allen, Garrett, and Wimer 2016).

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Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Asio flammeus	short-eared owl	SSC (nesting)	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Suitable habitat in the BSA but has not been reported breeding in the vicinity (Allen, Garrett, and Wimer 2016). BSA outside of current breeding range (Shuford and Gardali 2008).
Asio otus	long-eared owl	SSC (nesting)	Occurs in riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Limited suitable habitat in the BSA but has not been reported breeding in the vicinity (Allen, Garrett, and Wimer 2016). BSA outside of current breeding range (Shuford and Gardali 2008).
Athene cunicularia	burrowing owl	SSC (burrow sites and wintering sites with burrow)	Occurs in 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.	HP (foraging and wintering) A (nesting – burrow sites)	Moderate potential to occur for foraging, mainly expected to occur as a migrant but low to moderate potential to occur for wintering. Suitable foraging habitat in the BSA.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Aythya americana	redhead	SSC (nesting)	Usually nest in freshwater emergent wetlands where dense stands of cattails (*Typha* ssp.) and tules (*Scirpus* ssp.) are interspersed with areas of deep, open water (Shuford and Gardali 2008). When nesting they prefer relatively deep permanent or semipermanent wetlands (Shuford and Gardali 2008). The majority of the county breeders occupy larger permanent lakes in the interior, heavily bordered by emergent vegetation (Allen, Garrett, and Wimer 2016). This species was once completely extirpated as a breeder in the county as its coastal-slope wetland habitats were drained, it now breeds at several locations in the interior (Allen, Garrett, and Wimer 2016).	HP (foraging) A (nesting)	High potential to occur for foraging but not expected to occur for nesting. Suitable habitat in the BSA but has not been reported breeding in the vicinity (Allen, Garrett, and Wimer 2016). BSA outside of current breeding range (Shuford and Gardali 2008).
Brachyramphus marmoratus	marbled murrelet	FT (nesting); SE (nesting)	Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Branta bernicla	brant	SSC (wintering and staging)	Requires well-protected, shallow marine waters with intertidal eel-grass beds, primarily within bays and estuaries. At high tide they need sheltered open water or protected beaches for loafing. During the nonbreeding season, Brant require well-protected, shallow marine waters with intertidal eel-grass beds, primarily within bays and estuaries (Shuford and Gardali 2008).	HP (foraging and wintering)	Moderate potential to occur for foraging, mainly expected to occur as a migrant but low potential to occur for wintering and staging. Suitable foraging habitat but limited wintering habitat in the BSA.
Botaurus lentiginosus	American bittern	SA	Occurs in freshwater and slightly brackish marshes. Also in coastal saltmarshes.	HP (foraging) A (nesting)	Moderate potential to occur for foraging but not expected to occur for nesting. Suitable foraging and nesting habitat in the BSA this species is presumed extirpated as a breeder from the county (Allen, Garrett, and Wimer 2016).
Buteo regalis	ferruginous hawk	WL (wintering)	Occurs in open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	HP (foraging and wintering)	Low potential to occur for foraging, mainly expected to occur as a vagrant. Limited suitable foraging and wintering habitat in the BSA but has not been reported in the vicinity as wintering occurrence.

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Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Buteo swainsoni	Swainson's hawk	ST (nesting)	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Limited suitable foraging habitat in the BSA but presumed extirpated as a breeder from the coastal slope of the county. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Cerorhinca monocerata	rhinoceros auklet	WL (nesting colony)	Off-shore islands and rocks along the California coast. Nests in a burrow on undisturbed, forested and unforested islands, and probably in cliff caves on the mainland.	A (foraging and nesting)	Not expected to occur. No suitable foraging or nesting habitat.
Chaetura vauxi	Vaux's swift	SSC (nesting)	Breeds in redwood, Douglas-fir, and other coniferous forests. Nests in large hollow trees and snags. Often nests in flocks. Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	HP (foraging) A (nesting)	Moderate potential to occur for foraging, mainly expected to occur as a migrant but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. BSA outside of current breeding range.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Charadrius alexandrines nivosus	western snowy plover	FT (nesting); SSC (nesting)	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a migrant but not expected to occur for nesting. Limited suitable foraging habitat in the BSA mostly along Ballona Creek but no suitable nesting habitat. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Charadrius montanus	mountain plover	SSC (wintering)	Occurs in short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Prefers grazed areas and areas with burrowing rodents.	HP (foraging and wintering)	Low potential to occur. Limited suitable foraging and wintering habitat in the BSA.
Chlidonias niger	black tern	SSC (nesting colony)	Freshwater lakes, ponds, marshes and flooded agricultural fields. Occurs at coastal lagoons and estuaries during migration. Breeds primarily in Modoc Plateau region, with some breeding in Sacramento and San Joaquin valleys.	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Limited suitable foraging habitat in the BSA but no suitable nesting habitat and has not been reported breeding in the vicinity. BSA outside of current breeding range (Shuford and Gardali 2008).

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Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Circus hudsonius	northern harrier	SSC (nesting)	Forages and nests in open habitats, making use of freshwater or brackish marshes, wet meadows or pastures, grasslands, and cold-desert scrublands (Allen, Garrett, and Wimer 2016).	HP/P (foraging and nesting)	Observed. Low potential to occur for nesting, mostly expected to occur as a migrant. Suitable foraging and nesting habitat in the BSA but has been nearly eradicated from the coastal slope of the County over the course of the 20th century, but small numbers seem to be breeding in the Antelope Valley (Garrett and Dunn 1981; Allen, Garrett, and Wimer 2016). BSA outside of current breeding range (Shuford and Gardali 2008).
Cistothorus palustris clarkae	Clark's marsh wren	SSC	Restricted to freshwater and brackish marshes dominated by bulrushes (*Scirpus* spp.) or cattails (*Typha* spp.).	HP (foraging and nesting)	Moderate potential to occur for foraging and nesting, mainly expected to be wintering. Suitable foraging and nesting habitat in the BSA.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT (nesting); SE (nesting)	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Limited suitable foraging habitat but no suitable nesting habitat in the BSA. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***

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Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Contopus cooperi	olive-sided flycatcher	SSC (nesting)	Most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes or other open terrain. Nesting habitats are mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir and lodgepole pine.	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. BSA outside of current breeding range.
Coturnicops noveboracensis	yellow rail	SSC	Occurs in freshwater marshlands. Occurs year round in California, but in two primary seasonal roles: currently as a very local breeder in the northeastern interior and as a winter visitor on the coast (Shuford and Gardali 2008).	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat in the BSA but not known to breed in the county. Only 2 known CNDDB occurrences for the county, none for breeding.
Cypseloides niger	black swift	SSC (nesting)	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a migrant but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat.

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Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Dendrocygna bicolor	fulvous whistling-duck	SSC (nesting)	Fresh-water marsh. Occurs only as a very rare vagrant to Los Angeles County, with recent records from Piute Ponds in May 1981 and the San Gabriel River near El Monte in December 2005 (Allen, Garrett, and Wimer 2016).	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat in the BSA but not known to breed in the county. Has been extirpated as a breeder in the county.
Elanus leucurus	white-tailed kite	FP (nesting)	Occurs in rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	HP (foraging and nesting)	High potential to occur for foraging but low potential to occur for nesting. Suitable foraging habitat in the BSA and observed during surveys of the BWER but limited suitable nesting habitat in the BSA, expected mainly as a post-breeding visitor.
Empidonax traillii extimus	southwestern willow flycatcher	FE (nesting); SE (nesting)	Occurs in riparian woodlands in Southern California. Breeding birds have nearly been extirpated from the county, but recent records come from riparian groves in Soledad Canyon and San Gabriel Canyon (Allen, Garrett, and Wimer 2016). Migrants are fairly common through the coastal slope of the county (Allen, Garrett, and Wimer 2016).	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a migrant but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. Not currently known to nest in this area and believed to be absence for breeding from the coastal slope of the county. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***

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Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Eremophila alpestris actia	California horned lark	WL	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats. A few coastal-breeding birds may persist in grasslands above Santa Clarita, but the species is now difficult to find on the coastal slope of the county (Allen, Garrett, and Wimer 2016).	HP (foraging and nesting)	Moderate potential to occur for foraging but low potential to occur for nesting. Suitable foraging and nesting habitat in the BSA but has not been reported breeding in the vicinity.
Falco columbarius	merlin	WL (wintering)	Occurs in seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches.	HP (foraging and wintering)	High potential to occur. Suitable foraging and wintering habitat in the BSA.
Falco peregrinus anatum	American peregrine falcon	FP (nesting)	Found near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Optimum habitats encompass cliff faces for nesting and open areas for foraging (Allen, Garrett, and Wimer 2016). Historically, county breeders have frequented areas with high cliffs, with most known nestings on the islands (Allen, Garrett, and Wimer 2016). Recent county nesters are concentrated in built-up areas containing taller buildings (Allen, Garrett, and Wimer 2016).	HP (foraging) A (nesting)	Moderate potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat.

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Falco mexicanus	prairie falcon	WL (nesting)	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores. County breeders forage over creosote bush scrub, juniper scrub, open chaparral, and grasslands, and nest at scattered cliffside locations along the county's mountain spine.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Limited suitable foraging habitat but no suitable nesting habitat in the BSA. Has not been reported in the vicinity.
Fratercula cirrhata	tufted puffin	SSC (nesting colony)	Open-ocean bird; nests along the coast on islands, islets, or (rarely) mainland cliffs.	A (foraging and nesting)	Not expected to occur for foraging or nesting but has potential to occur as a vagrant. No suitable foraging or nesting habitat in the BSA.
Gavia immer	common loon	SSC (nesting)	Bodies of water regularly frequented are extensive, fairly deep, and produce quantities of large fish. Nesting locations at certain large lakes and reservoirs in interior of state, primarily in northeastern plateau region.	HP (foraging) A (nesting)	Moderate potential to occur for foraging mainly on Ballona Creek but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat.

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Grus canadensis tabida	greater sandhill crane	ST; FP (nesting and wintering)	Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Suitable foraging and nesting habitat in the BSA but has not been reported breeding in the vicinity. Nests in northeastern California. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Haliaeetus leucocephalus	bald eagle	Federally Delisted; SE; FP (nesting and wintering)	Occurs in ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine.	HP (foraging and wintering) A (nesting)	Low potential to occur for foraging and wintering, mainly expected to occur as a vagrant but not expected to occur for nesting. Limited suitable foraging habitat in the BSA but no suitable nesting habitat. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Histrionicus histrionicus	harlequin duck	SSC (nesting)	Breeds on west slope of the Sierra Nevada, nesting along shores of swift, shallow rivers.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Suitable foraging habitat in the BSA but has not been reported breeding in the vicinity. Nests outside the BSA region.

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Hydroprogne caspia	Caspian tern	SA (nesting colony)	Inland freshwater lakes and marshes; also, brackish or salt waters of estuaries and bays. Nests on sandy or gravelly beaches and shell banks in small colonies inland and along the coast.	HP (foraging) A (nesting)	High potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. Not a historic breeder in the county (Allen, Garrett, and Wimer 2016).
Icteria virens	yellow-breasted chat	SSC (nesting)	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	**HP/P (foraging and nesting)**	**Observed.** Suitable foraging and nesting habitat in the BSA.
Ixobrychus exilis -	least bittern	SSC (nesting)	Colonial nester in marshlands and borders of ponds and reservoirs which provide ample cover. Nests usually placed low in tules, over water.	HP (foraging and nesting)	Moderate potential to occur for foraging but low potential to occur for nesting. Suitable foraging and nesting habitat in the BSA.
Lanius ludovicianus	loggerhead shrike	SSC (nesting)	Occurs in broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	HP (foraging and nesting)	High potential to occur for foraging and moderate potential to occur for nesting. Suitable foraging and nesting habitat in the BSA.

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Larus californicus	California gull	WL (nesting colony)	Littoral waters, sandy beaches, waters and shorelines of bays, tidal mud-flats, marshes, lakes, etc. Colonial nester on islets in large interior lakes, either fresh or strongly alkaline.	HP (foraging) A (nesting)	High potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat.
Laterallus jamaicensis coturniculus	California black rail	ST; FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	HP (foraging and nesting)	Low potential to occur for foraging and nesting, mainly expected to occur as a migrant. Suitable foraging and nesting habitat in the BSA and historically reported in the vicinity of the BSA (1895 and 1928 record) but no recent breeding records. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Leucophaeus atricilla	laughing gull	WL (nesting colony)	Once a regular nester at the south end of the Salton Sea.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Limited suitable habitat in the BSA but has not been reported in the vicinity.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Mycteria americana	wood stork	SSC	Freshwater and saltwater sloughs, lagoons, shallow ponds and marshes.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Suitable habitat in the BSA but has not been reported in the vicinity.[a] BSA outside of current post-breeding range (Shuford and Gardali 2008).
Numenius americanus	long-billed curlew	WL (nesting)	Breeds in upland shortgrass prairies and wet meadows in northeastern California.	HP (foraging) A (nesting)	High potential to occur for foraging, mainly expected to occur as a migrant but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat.
Oceanodroma furcate	fork-tailed storm-petrel	SSC (nesting colony)	Colonial nester on small, offshore islets. Forages over the open ocean, usually well off-shore.	A (foraging and nesting)	Not expected to occur for foraging or nesting but has potential to occur as a vagrant. No suitable foraging or nesting habitat in the BSA.
Oceanodroma homochroa	ashy storm-petrel	SSC (nesting colony)	Colonial nester on off-shore islands. Usually nests on driest part of islands. Forages over open ocean.	A (foraging and nesting)	Not expected to occur for foraging or nesting but has potential to occur as a vagrant. No suitable foraging or nesting habitat in the BSA.
Oceanodroma melania	black storm-petrel	SSC (nesting colony)	Colonial nester on Santa Barbara Island. Forages in open ocean, in channel waters, and also far off-shore.	A (foraging and nesting)	Not expected to occur for foraging or nesting but has potential to occur as a vagrant. No suitable foraging or nesting habitat in the BSA.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Oreothlypis luciae	Lucy's warbler	SSC (nesting)	Occurs primarily along lower Colorado River Valley and the washes and arroyos emptying into it, with occasional occurrences throughout the Sonoran and Mojave deserts. Partial to thickets of mesquite, riparian scrub and even stands of tamarisk.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Suitable foraging habitat in the BSA but outside of current breeding range (Shuford and Gardali 2008).
Oreothlypis virginiae	Virginia's warbler	WL (nesting)	East slope of Southern Sierra Nevada to San Bernardino Mountains. In arid, shrubby, mixed-conifer, pinyon-juniper, montane-chaparral. 7000-9000 feet. Nests on arid slopes with stands of tall shrubs/scattered trees; also, riparian thickets of willow/wild rose along streams. It is a rare fall migrant along the coast with most occurring in September (Allen, Garrett, and Wimer 2016). Few county breeding season records have come from montane chaparral mixed with arid pine-oak woodland (Allen, Garrett, and Wimer 2016).	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant or migrant but not expected to occur for nesting. Suitable habitat in the BSA but has not been reported in the vicinity.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Pandion haliaetus	osprey	WL (nesting)	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	HP (foraging and nesting)	High potential to occur for foraging and low potential to occur for nesting. Suitable habitat in the BSA but has not been reported breeding in the vicinity (Allen, Garrett, and Wimer 2016).
Passerculus sandwichensis beldingi	Belding's savannah sparrow	SE	Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in *Salicornia* on and about margins of tidal flats.	HP (foraging and nesting)	High potential to occur for foraging and nesting. Suitable habitat in the BSA and observed during recent surveys of the BWER. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Passerculus sandwichensis rostratus	large-billed savannah sparrow	SSC (wintering)	Breeds along the Colorado River delta in Mexico; winters at the Salton Sea. Inhabits saline emergent wetlands at the Salton Sea and southern coast.	HP (foraging and wintering)	Low potential to occur for foraging but low potential to occur wintering. Suitable foraging habitat in the BSA but BSA is outside of current winter and post-breeding range (Shuford and Gardali 2008).
Pelecanus erythrorhynchos	American white pelican	SSC (nesting colony)	Nests on large lakes, providing safe roosting and breeding places in the form of well-sequestered islets.	HP (foraging) A (nesting)	Moderate potential to occur for foraging on Ballona Creek but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. BSA outside of current breeding range (Shuford and Gardali 2008).

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Pelecanus occidentalis californicus	California brown pelican	FP (nesting colony and communal roosts)	Colonial nester on coastal islands just outside the surf line.	HP (foraging and roosting) A (nesting)	High potential to occur for foraging and roosting but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat.
Phalacrocorax auritus	double-crested cormorant	WL (nesting colony)	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	HP/P (foraging and nesting)	**Observed.** Suitable foraging and nesting habitat in the BSA.
Piranga rubra	summer tanager	SSC (nesting)	Summer resident of desert riparian along lower Colorado River, and locally elsewhere in California deserts. Requires cottonwood-willow riparian for nesting and foraging; prefers older, dense stands along streams.	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Limited suitable foraging habitat in the BSA but BSA outside of current breeding range (Shuford and Gardali 2008).

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Plegadis chihi	white-faced ibis	WL (nesting colony)	Shallow freshwater marsh. Dense tule thickets for nesting, interspersed with areas of shallow water for foraging.	HP (foraging and nesting)	High potential to occur for foraging but low potential to occur for nesting. Suitable habitat in the BSA and historically known to breed in the Ballona marshes (Allen, Garrett, and Wimer 2016) but now only known to be breeding at Piute Ponds for the entirety of the county’s breeding season population (Allen, Garrett, and Wimer 2016).
Polioptila californica californica	coastal California gnatcatcher	FT; SSC	Obligate permanent resident of coastal sage scrub below 2,500 feet in Southern California. Occurs in low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	HP (foraging and nesting)	Moderate potential to occur for foraging and low potential to occur for nesting. Not detected in the BSA during focused surveys. Limited suitable habitat in the BSA. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Pooecetes gramineus affinis	Oregon vesper sparrow	SSC (wintering)	An obligate grassland species. Winters mainly on open ground with little vegetation or short grass and low annuals (Shuford and Gardali 2008).	HP (foraging) A (nesting)	Low potential to occur for foraging and wintering but not expected to occur for nesting. BSA outside of current breeding range. Suitable foraging and wintering habitat in the BSA.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Progne subis	purple martin	SSC (nesting)	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag. It is extremely rare as a breeding bird and perhaps now extirpated from the county (Allen, Garrett, and Wimer 2016).	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Suitable foraging habitat in the BSA but BSA outside of current breeding range (Shuford and Gardali 2008).
Ptychoramphus aleuticus	Cassin's auklet	SSC (nesting colony)	Offshore islands with enough soil for burrowing. Will also nest in rock crevices, under buildings and in debris.	A (foraging and nesting)	Not expected to occur for foraging or nesting but has potential to occur as a vagrant. No suitable foraging or nesting habitat in the BSA.
Pyrocephalus rubinus	vermilion flycatcher	SSC (nesting)	During nesting, inhabits desert riparian adjacent to irrigated fields, irrigation ditches, pastures, and other open, mesic areas. Nests in cottonwood, willow, mesquite, and other large desert riparian trees.	HP (foraging) A (nesting)	Moderate potential to occur for foraging, mainly expected to occur as a vagrant but not expected to occur for nesting. Suitable foraging habitat in the BSA but BSA outside of current breeding range (Shuford and Gardali 2008). An extremely rare breeder in the county (Allen, Garrett, and Wimer 2016).

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Rallus obsoletus levipes	light-footed Ridgway's rail	FE; SE; FP	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover.	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Limited suitable foraging habitat in the BSA but only a few occurrences have been noted. Two recent records from the BWER on August 25, 2008 and in late 1994/early 1995 have been reported. Presumed extirpated as a breeder from the county. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Riparia riparia	bank swallow	ST (nesting)	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. Migrants utilize a variety of lowland and coastal habitats; wintering birds seem to preferentially forage over open water, less often over fields, wetlands, and beaches (Garrison 1999).	HP (foraging) A (nesting)	Low potential to occur for foraging, mainly expected to occur as a migrant but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. Presumed extirpated as a breeder from the county. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Rynchops niger	black skimmer	SSC (nesting colony)	Forages over calm, shallow water, typically at the mouths of rivers and channels. Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites.	HP (foraging) A (nesting)	Moderate to high potential to occur for foraging on Ballona Creek but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. BSA outside of current breeding range.
Setophaga petechia	yellow warbler	SSC (nesting)	Occurs in riparian plant associations in close proximity to water. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	**HP/P**	**Observed.** Suitable foraging and nesting habitat in the BSA, mainly expected to occur as a migrant.
Synthliboramphus scrippsi	Scripps's murrelet	FC (nesting colony); ST (nesting colony)	Open ocean except during breeding season. Breeds on offshore islands in Southern California. Breeding in the county is restricted to the vicinity of the San Clemente and Santa Catalina Islands (Allen, Garrett, and Wimer 2016).	A (foraging and nesting)	Not expected to occur for foraging or nesting but has potential to occur as a vagrant. No suitable foraging or nesting habitat in the BSA.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Spizella breweri	Brewer's sparrow	SA (nesting)	East of Cascade-Sierra Nevada crest, mountains and high valleys of Mojave Desert, and mountains at southern end of San Joaquin Valley. For nesting they prefer high sagebrush plains, slopes and valley with Great Basin sagebrush and antelope brush.	HP (foraging) A (nesting)	Low potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat but no suitable nesting habitat in the BSA.
Sternula antillarum browni	California least tern	FE (nesting colony); SE; FP (nesting colony)	Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	HP (foraging) A (nesting)	High potential to occur for foraging mainly on Ballona Creek but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat. A known breeding colony at Venice Beach is located approximately 1.5 miles west of the BSA (1996 record. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Thalasseus elegans	elegant tern	WL (nesting colony)	The only known breeding colony in Los Angeles County occurs on sandy dredge spoil in Los Angeles Harbor (Allen, Garrett, and Wimer 2016). Nests on open, sandy, undisturbed beaches and on salt-evaporating pond dikes (San Diego) in association with Caspian tern.	HP (foraging) A (nesting)	High potential to occur for foraging but not expected to occur for nesting. Suitable foraging habitat in the BSA but no suitable nesting habitat.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Vireo bellii pusillus	least Bell's vireo	FE (nesting); SE (nesting)	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs Projecting into pathways, usually willow, Baccharis, mesquite.	**HP/P**	**Observed during focused surveys.** High potential to occur for foraging and moderate potential to occur for nesting. Suitable foraging and nesting habitat in the BSA. ***Potential effects to this species are evaluated in Chapter 2.3.5, Threatened and Endangered Species.***
Xanthocephalus xanthocephalus	yellow-headed blackbird	SSC (nesting)	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	HP (foraging and nesting)	Moderate potential to occur for foraging, mainly expected to occur as a migrant but low potential to occur for nesting. Suitable foraging and nesting habitat in the BSA. Breeding in the county is believed to be restricted to the Antelope Valley (Allen, Garrett, and Wimer 2016).
Mammals					
Antrozous pallidus	pallid bat	SSC	Occurs in deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	HP	Low potential to occur. Suitable foraging and roosting habitat in the BSA but not observed during 2014 bat surveys for BWER (ESA 2015).

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Corynorhinus townsendii	Townsend's big-eared bat	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings.	HP	Low potential to occur. Suitable foraging habitat but not expected to occur for roosting in the BSA. Not observed during 2014 bat surveys for BWER (ESA 2015).
Eumops perotis californicus	western mastiff bat	SSC	Occurs in many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	HP	Low potential to occur. Suitable foraging but not expected to occur for roosting in the BSA. Not observed during 2014 bat surveys for BWER (ESA 2015).
Lasionycteris noctivagans	silver-haired bat	SA	Primarily a coastal and montane forest dweller, feeding over streams, ponds & open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	HP	Moderate potential to occur. Suitable foraging and roosting habitat in the BSA and observed during 2014 bat surveys for BWER (ESA 2015).
Lasiurus blossevillii	western red bat	SSC	Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging. Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests.	HP	Low potential to occur. Suitable foraging and roosting habitat in the BSA but not observed during 2014 bat surveys for BWER (ESA 2015).

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Lasiurus xanthinus	western yellow bat	SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	HP	Low potential to occur. Suitable foraging and roosting habitat in the BSA but not observed during 2014 bat surveys for BWER (ESA 2015).
Lasiurus cinereus	hoary bat	SA	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	HP	High potential to occur. Suitable foraging and roosting habitat in the BSA, and observed during 2014 bat surveys for BWER (ESA 2015).
Myotis yumanensis	Yuma myotis	SA	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices, and occasionally in swallow nests and under bridges.	HP	High potential to occur. Suitable foraging and roosting habitat in the BSA, and observed during 2014 bat surveys for BWER (ESA 2015).
Microtus californicus stephensi	south coast marsh vole	SSC	Tidal marshes in Los Angeles, Orange and Southern Ventura Counties.	HP	High potential to occur. Suitable habitat present and observed during surveys of the BWER.

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Nyctinomops femorosaccus	pocketed free-tailed bat	SSC	Occurs in a variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Prefers rocky areas with high cliffs.	HP	Low potential to occur. Suitable foraging and limited roosting habitat in the BSA but not observed during 2014 bat surveys for BWER (ESA 2015).
Nyctinomops macrotis	big free-tailed bat	SSC	Occurs in low-lying arid areas in southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	HP	Low potential to occur. Suitable foraging and limited roosting habitat in the BSA but not observed during 2014 bat surveys for BWER (ESA 2015).
Perognathus longimembris pacificus	Pacific pocket mouse	FE; SSC	Inhabits the narrow coastal plains from the Mexican border north to El Segundo, Los Angeles County. Prefers soils of fine alluvial sands near the ocean.	HP	Not expected to occur. Limited suitable habitat in the BSA; however, it has not been observed or captured since 1938 despite multiple trapping efforts within the greater BWER inclusive of the BSA (trapping efforts occurred 1996, 2000, 2007, 2009, 2010, and 2011). Further, no source populations of species are known within an area connected to the BSA or the greater BWER (historically occurred 2.5 miles south of the BSA; however, believed to be extirpated.)

Table 2.3.4-1 – Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Species Present (HP/P); Habitat Present/Species Presence Unknown (HP); Habitat Absent (A)	Rationale (Potential for Species to Occur); Results of Focused Surveys
Sorex ornatus salicornicus	southern California saltmarsh shrew	SSC	Coastal marshes in Los Angeles, Orange and Ventura Counties. Requires dense vegetation and woody debris for cover.	HP	High potential to occur. Suitable habitat present in the BSA and observed during past surveys of the BWER.
Taxidea taxus	American badger	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.	HP	Low potential to occur. Limited suitable habitat but not observed during surveys of the BWER. No known occurrences in the vicinity of the BSA (CDFW 2023). Nearest known occurrence is approximately 12 miles northeast of the BSA (CDFW).

USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife; HP/P: Habitat Present/Species Present; HP: Habitat Present/Species Presence Unknown; HA: Habitat Absent; BSA: Biological Study Area.

* An asterisk denotes species that do not have habitat present in the BSA (Habitat Absent), but which were previously documented as occurring in adjacent portions of the BWER in CDFW 2017a.

STATUS DEFINITIONS

Federal (USFWS) Designations:

FE Listed by the federal government as an Endangered species
FT Listed by the federal government as a Threatened species
FC Federal Candidate

State (CDFW) Designations:

SE Listed as Endangered by the State of California
ST Listed as Threatened by the State of California
CE Candidate Endangered
SSC Species of Special Concern
FP Fully Protected
WL Watch List
SA Special Animal (tracked by the CDFW)

Source: Psomas 2024b.

Environmental Consequences

Special Status Animal Species Occurrences

One hundred and twenty-eight special status wildlife species have been reported from the region containing the project site are listed in Table 2.3.5-2. Thirty-three of these are federally and/or state listed as Threatened or Endangered or Candidate species and 20 were determined to potentially occur or have been observed within the BSA based on habitat requirements/BSA conditions. Federally and/or state listed Threatened or Endangered or Candidate species are discussed in Chapter 2.3.5. Thirty-eight non-listed special status wildlife species are determined to potentially reside or breed in or immediately adjacent to the BSA and are discussed further below: Busck's gallmoth (*Carolella busckana*), western tidal-flat tiger beetle (*Cicindela gabbii*), sandy beach tiger beetle (*Cicindela hirticollis gravida*), senile tiger beetle (*Cicindela senilis frosti*), wandering skipper (*Panoquina errans*), Gertsch's socalchemmis spider (*Socalchemmis gertshi*), mimic tryonia (*Tryonia imitator*), southern California legless lizard (*Anniella stebbinsi*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), coast horned lizard (*Phrynosoma blainvillii*), two-striped garter snake (*Thamnophis hammondi*), south coast garter snake (*Thamnophis sirtalis* ssp.), Cooper's hawk (*Accipiter cooperii*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus hudsonius*), Clark's marsh wren (*Cistothorus palustris clarkae*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophia alpestris actia*), yellow-breasted chat (*Icteria virens*), least bittern (*Ixobrychus exillis*), loggerhead shrike (*Lanius ludovicianus*), osprey (*Pandion haliaetus*), double-crested cormorant (*Phalacrocorax auratus*), white-faced ibis (*Plegadis chihi*), yellow warbler (*Setophaga petechia*), yellow-headed blackbird (*Xanthocephalus xanthocephalus*), pallid bat,(*Antrozous palliudus*), silver-haired bat *(Lasionycteris noctivagans*), western red bat (*Lasiurus blossevillii*), western yellow bat (*Lasiurus xanthinus*), hoary bat (*Lasiurus cinereus*), Yuma myotis (*Myotis yumanensis*), south coast marsh vole (*Microtus californicus stephensi*), pocket free-tailed bat (*Nyctinomops femorosaccus*), big free-tailed bat (*Nyctinomops macrotis*), southern California saltmarsh shrew (*Sorex ornatus salicornicus*), and American badger (*Taxidea taxus*).

Additional focused special status wildlife are being conducted within the project site in the 2024 survey season. Information on the results of these surveys will be provided along with the Final EIR/EA.

Alternative 1 – No Build Alternative

Construction Effects

Since Alternative 1 would involve no vegetation removal, grading, or other ground disturbing activities; therefore, Alternative 1 would result in no short-term effects to animal species.

Operational Effects

Alternative 1 would have no operational effects related to animal species.

Cumulative Effects

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to animal species.

Alternative 2 – Base Alternative

Construction Effects

The direct effects to wildlife as a result of Alternative 2 include habitat loss and potential injury and mortality of individuals. The potential indirect effects to wildlife may include noise impacts, increased dust and urban pollutants, and night lighting. The direct effects of Alternative 2 on natural communities and associated wildlife habitat are listed in 2.3.4-2.

Noise Impacts to Wildlife During Construction

Portions of the BWER that are adjacent to SR-1/Lincoln Boulevard have existing sound levels between 67 and 68 dB, while sound levels drop down to 58 to 62 dB range as you get approximately 200 feet from the existing roadway (Caltrans 2021a). Therefore, there is already traffic noise which effects birds and other wildlife within the BWER. The effects of traffic and construction noise on birds and other wildlife is complex and varied depending on the species; however, it is clear that noise has effects on the behavior and communication of many species. For example, masking of communication signals and other biologically relevant sounds for birds are believed to be affected by continuous noise levels of 60 dBA or greater but can be lower or higher depending on the bird species (Caltrans 2016a).

The closer birds and other wildlife are to the roadway in existing conditions, the greater the chance they would experience noise effects. For example, for birds there are four general overlapping categories of construction and traffic noise effects on birds, which include: (1) permanent threshold shift (PTS—permanent hearing loss), (2) temporary threshold shift (TTS—temporary hearing loss which recovers over a period of minutes to days from the end of noise exposure), (3) masking, and (4) other physiological and behavioral responses.

Table 2.3.4-2 – Vegetation Types and Other Areas that would be Impacted by Alternative 2

Vegetation Types and Other Areas	Existing (acres)	Permanent Impact/ Structural (acres)	Permanent Impact/Shade (acres)	Temporary Impact (acres)	Total Impact (acres)
Scrub Communities					
California Sagebrush Scrub	3.533	0.835	0.000	0.381	1.216
Coyote Brush Scrub	4.485	0.042	0.000	0.248	0.290
Degraded Coyote Brush Scrub	2.637	0.000	0.000	0.000	0.000
Laurel Sumac Scrub	1.265	0.000	0.000	0.000	0.000
Menzies's Golden Bush Scrub	2.158	0.016	0.000	0.297	0.313
Quailbush Scrub	4.145	0.004	0.000	0.031	0.035
Grassland Communities					
Annual Brome Grassland	0.493	0.015	0.000	0.131	0.146
Cudweed Stand	0.874	0.000	0.000	0.000	0.000
Hyssop-Leaved Bassia Stand	3.056	0.000	0.000	0.952	0.952
Semi-Natural Herbaceous Stand	4.646	0.200	0.000	1.564	1.764
Upland Mustards	24.872	1.215	0.000	1.918	3.133
Seasonal Wetland/Marsh Communities					
Alkali Weed Playa	1.108	0.000	0.000	0.000	0.000
Annual Beard Grass-Bristly Ox-tongue Grassland	2.682	0.000	0.000	0.000	0.000
California Bulrush Marsh	0.689	0.000	0.000	0.002	0.002
Cattail Marsh	0.313	0.000	0.000	0.000	0.000
Pickleweed Mat	1.196	0.000	0.000	0.000	0.000
Riparian Communities					
Arroyo Willow Thicket	2.039	0.286	0.000	0.000	0.286
Mulefat Thicket	0.685	0.000	0.000	0.000	0.000
Other Landcover					
Developed	56.015	9.467	0.000	2.654	12.111
Open Water	9.268	0.007**	0.731*	2.130	2.868
Parks and Landscaping	5.650	0.000	0.000	0.009	0.009
Total	**131.809**	**12.087**	**0.731**	**10.317**	**23.135**

* This impact represents the footprint of the new bridge over open water. The area will also be temporarily impacted for construction access. There will be no permanent loss of open water in this area – these areas of Ballona Creek would just be shaded. Existing shaded areas have not been deducted from this calculation, so the actual increase in shading is less.

** Alternative 2 involves the replacement of the three existing bridge piers in Ballona Creek that support the existing bridge with two bridge piers to support the proposed replacement bridge. The permanent structural footprint within Ballona Creek would be less than the existing conditions.

Source: Psomas 2024b.

For birds and other wildlife that are closest to the roadway, there is potential they could experience all four of the effects noted above. For birds and other wildlife furthest away, they may just experience other physiological and behavioral responses, such as constant arousal from the roadway noise levels, but not the other effects such as hearing loss or masking. In summary, increased noise levels can lead to hearing loss and other physical changes as well as behavioral changes in birds and other wildlife. For songbirds, for example, higher sound levels can result in changes to the tonality/amplitude of their calls, their higher cortisol levels, the likelihood that they will abandon their nests. For many wildlife, noise effects can result in reduced ability to hear prey, predators, and/or mates, as well as in reduced or altered usage of noisy areas in preference for more quiet areas.

During construction of Alternative 2, noise from construction activities would intermittently dominate the noise environment in the project site and immediate surroundings. Impact hammers would be used to drive piles that are needed to construct the SR-1/Lincoln Boulevard Bridge over Ballona Creek and for the replacement Culver Boulevard Bridge. The duration of the pile driving would occur for approximately 70 days at the Ballona Creek Bridge and 25 days for the Culver Boulevard Overcrossing. Pile driving would not occur from 9:00 PM—7:00 AM on Mondays–Fridays, 6:00 PM—8:00 AM on Saturdays/Holidays, and not at all on Sundays. This will be included in the project specifications and will be in accordance with the City's noise ordinance. Table 2.2.7-4 summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 70 to 90 dB at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance. To minimize the construction-generated noise, abatement measures in standard Specification 14-8.02, "Noise Control" and SSP 14-8.02 must be followed. This requirement shall not relieve the Contractor from responsibility for complying with local ordinances regulating noise levels.

- Do not exceed 86 dBA at 50 feet from the job site activities from 9:00 PM–6:00 AM.
- Equip an internal combustion engine with the manufacturer recommended muffler.
- Do not operate an internal combustion engine on the job site without the appropriate muffler.

During construction, Alternative 2 would result in temporary construction noise ranging from 70 to 86 dB at a distance of 50 feet, depending on the work activity. This would represent up to a 19 dB increase from existing ambient conditions at times temporarily during construction (Caltrans 2021a).

Increased Dust and Urban Pollutants During Construction

Grading activities would disturb soils and result in the accumulation of dust on the surface of the leaves of plant species in adjacent areas. The respiratory function of the plants in the area could be impaired if dust accumulation is excessive. This indirect effect of Project construction on the native vegetation in the immediate vicinity of the construction area is considered adverse, but less than substantial since it is not expected to be detrimental enough to result in plant mortality.

Improper disposal of petroleum and chemical products from construction equipment could impact water quality of any runoff from construction areas. Urban runoff from Project infrastructure could also impact runoff water quality adjacent to the roadway during operation of Alternative 2. In addition, runoff could remain in standing puddles or small ponds temporarily, especially during the construction phase if heavy equipment compacts the soil within the temporary impact area. Adverse effects on water quality could impact populations of terrestrial wildlife species that drink this water or plant species that occur in the immediate vicinity of the runoff.

Additional impacts on biological resources in the area could occur as a result of changes in water quality. Runoff of silt from the BSA or improper disposal of petroleum and chemical products from construction equipment could temporarily impact water quality during construction. Adverse effects on water quality could affect populations of aquatic species (including special status species) by reducing the amount of available habitat and by smothering eggs of aquatic species; this may result in direct mortality. Adverse effects on water quality could also impact populations of terrestrial wildlife species that use the Ballona Creek for foraging by (1) ingesting toxic chemicals; (2) ingesting aquatic species that have ingested toxic chemicals leading to bioaccumulation of toxics; or (3) decreasing the available prey within aquatic habitats. The indirect impact on water quality is considered a potentially substantial effect. Alternative 2 shall incorporate the Avoidance and Minimization Measures at the beginning of Chapter 4 of the NES, including applicable measures required through NPDES requirements, to ensure that the quantity and quality of runoff discharged into the BSA is not adversely affected. In particular, measures will be put in place to avoid discharge of untreated surface runoff from developed and paved areas into adjacent open space areas. Storm water systems will be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within the adjacent open space areas. This can be accomplished using a variety of methods including detention basins, swales, or mechanical trapping devices to contain or treat runoff before it enters adjacent areas. Regular maintenance will occur during operation of Alternative 2 to ensure effective operation of runoff control systems.

To avoid and minimize construction effects related to water quality, **MM WQ-1** and **MM WQ-2** would be carried out requiring the development and implementation of a SWPPP and a Bridge Removal Plan. Also, **MM WQ-3** would be implemented, which specifies the requirements for treatment and disposal of any groundwater that may be encountered. Additionally, **MM WQ-4** would be implemented, which requires that an alternative best management practice be used to capture trash in Ballona Creek during those times during construction when the existing trash screen is temporarily removed. With implementation of these measures, the water quality effects of Alternative 2 would not result in substantial adverse effects to wildlife.

Night Lighting During Construction

Night lighting during could inadvertently result in an indirect effect on the behavioral patterns of aquatic species and nocturnal and crepuscular (i.e., active at dawn and dusk) wildlife in the BWER and Ballona Creek. Wildlife present in these areas may already be somewhat acclimated to current lighting associated with the existing roadways and development.

Limited night lighting would be needed during construction of Alternative 2. Night lighting would generally not be required since construction activities would occur between 6:00 A.M. and 9:00 P.M. in accordance with the City's and County's noise ordinances. However, limited nighttime lighting may be needed during construction within the project site. **MM VIS-1** would be implemented as part of Alternative 2, which requires that construction night lighting be limited to the maximum extent feasible and that any temporary night lighting be hooded and downcast and that direct illumination be limited to active portions of the project site only. With implementation of **MM VIS-1,** the night lighting effects of Alternative would not result in substantial adverse effects to wildlife.

Construction Effects to Non-Listed Species

Nesting Birds and Raptors

The MBTA protects migratory birds and their nests and eggs, both common and special status. Bird species protected under the provisions of the MBTA are identified by the List of Migratory Birds (50 Code of Federal Regulations [CFR] §10.13, as amended). Since the 1970s, the MBTA has been interpreted to prohibit the accidental or "incidental" take of migratory birds.

Multiple sections of California Fish and Game Code provide protection for nesting birds and raptors unless the California Fish and Game Code or its implementing regulations provide otherwise. Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically addresses raptors (i.e., birds of prey in the orders Falconiformes and Strigiformes) and makes it unlawful to take, possess, or destroy these birds or their nest or eggs. Section 3513 prohibits the take or possession of migratory non-game birds as designated by the MBTA or any part of such bird.

Migratory birds and raptors have the potential to nest on structures, in shrubs and trees, and on bare ground throughout the BSA. To reduce the potential to impact nesting birds to a less than substantial level, **MM BIO-15** would be implemented the requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

Busck's Gallmoth

Suitable habitat for the Busck's gallmoth occurs in the BSA. This species was not observed during general surveys of the BSA and during invertebrate surveys of the BWER; therefore, this species has a low potential to occur in the BSA. Alternative 2 would impact a total of 1.854 acre of suitable habitat for this species (0.897 acre permanent; 0.957 acre temporary). Project effects would be considered adverse, but less than substantial because if the species had since become present onsite, Alternative 2 would not likely reduce populations below self-sustaining levels on a regional scale. Therefore, Alternative 2 would result in a less than substantial effect related to Busck's gallmoth.

Western Tidal-Flat Tiger Beetle, Sandy Beach Tiger Beetle and Senile Tiger Beetle

Suitable habitat for the western tidal-flat tiger beetle, sandy beach tiger beetle, and senile tiger beetle occurs in the BSA. These species were not observed during general surveys of the BSA and all reported CNDDB occurrences are believed to be extirpated. Therefore, these species have a low potential to occur in the BSA. Alternative 2 would temporarily impact a total of 0.002 acres of suitable habitat for these species. Alternative 2 effects are considered adverse, but less than substantial because Alternative 2 would result in a minimal loss of suitable habitat relative to the amount available within the BSA. Therefore, Alternative 2 would result in a less than substantial effect related to western tidal-flat tiger beetle, sandy beach tiger beetle, and senile tiger beetle.

Wandering (Saltmarsh) Skipper

Suitable habitat for the wandering (saltmarsh) skipper occurs in the BSA and this species has been reported at the BWER, just west of the BSA. Therefore, this species has a high potential to occur in the BSA. Alternative 2 would temporarily impact a total of 0.002 acre of suitable habitat for this species.

Specifically relating to wandering (saltmarsh skipper), Alternative 2 would implement **MM BIO-16**, which requires that a qualified biologist shall conduct a pre-construction survey for the wandering (saltmarsh) skipper within the proposed impact area before construction. If this species is observed and is in imminent danger from construction activities, a qualified biologist shall attempt to relocate the wandering skipper to appropriate habitat outside the impact area or they shall be allowed to leave the impact area on their own. With implementation of **MM BIO-16**, Alternative 2 would result in a less than substantial effect related to wandering (saltmarsh) skipper.

Gertsch's Socalchemmis Spider

Suitable habitat for the Gertsch's socalchemmis spider occurs in the BSA. This species was not observed during general surveys of the BSA and during invertebrate surveys of the BWER; therefore, this species has a low potential to occur in the BSA. Alternative 2 would impact a total of 1.854 acre of suitable habitat for this species (0.897 acre permanent; 0.957 acre temporary). Project effects would be considered adverse, but less than substantial because if the species had since become present onsite, Alternative 2 would not likely reduce populations below self-sustaining levels on a regional scale. Therefore, Alternative 2 would result in a less than substantial effect related to Gertsch's socalchemmis spider.

Mimic Tryonia (California Brackish Snail)

Suitable habitat for the mimic tryonia (California brackish snail) occurs in the BSA. This species was not observed during general surveys of the BSA but has been reported along Ballona Creek, just southwest of the BSA. This species has a moderate potential to occur in the BSA. Alternative 2 would temporarily impact a total of 0.002 acre of suitable habitat for this species. The effects of Alternative 2 are considered adverse, but less than substantial because Alternative 2 would result in a minimal loss of suitable habitat relative to the amount available along Ballona Creek and in the BWER. Therefore, Alternative 2 would result in a less than substantial effect related to mimic tryonia.

Southern California Legless Lizard

Suitable habitat is present in the BSA for the southern California legless lizard and there is a high potential for this species to occur in the BSA. This species has been observed during surveys for the BWER. Alternative 2 would impact a total of 8.135 acre of potential habitat for this species (2.613 acre permanent; 5.522 acre temporary). Although Alternative 2 would result in a minimal loss of suitable habitat relative to the amount in the vicinity of the project site (8.135 acres impacted of the 58.678 acres identified within the BSA, not including the substantial additional habitat within the BWER); construction activities may result in the direct take of individuals of this species. Additionally, this species meets the definition of Section 15380[38] of the State CEQA Guidelines; therefore, any direct impact on this species would be considered potentially substantial.

To avoid and minimize the potential for effects to special status reptile species, **MM BIO-17** would be implemented which requires that a pre-construction survey for special status reptile species shall be conducted by a qualified biologist in suitable habitat within the proposed impact area. If any special status reptile species is observed within the impact area for Alternative 2, a reptile relocation plan shall be prepared and submitted to the City, Caltrans, and CDFW for review and approval. The reptile relocation plan shall identify the parameters of any potential relocation effort including: the qualifications of the biologist to monitor construction activities in suitable habitat, and to capture and relocate any special status individuals observed within the impact area; methods to capture and relocate the relevant special status species; and precise locations of the suitable habitat within the BWER to relocate the captured species to.

With implementation of **MM BIO-17,** Alternative 2 would result in a less than substantial effect related to southern California legless lizard.

Coastal Whiptail and Coast Horned Lizard

Suitable habitat is present in the BSA for the coastal whiptail and coast horned lizard; however, these species have not been reported in the vicinity and the BSA is outside the current range. Therefore, these species have a low potential to occur in the BSA. Alternative 2 would impact a total of 7.849 acre of potential habitat for these species (2.327 acre permanent; 5.522 acre temporary). Although Alternative 2would result in a minimal loss of suitable habitat relative to the amount available along the Project region (7.849 acres impacted of the 52.164 acres identified within the BSA, not including the substantial additional habitat within the BWER); construction activities may result in the direct take of individuals of these species, if either species is present. Additionally, coast horned lizard meets the definition of Section 15380[39] of the State CEQA Guidelines; therefore, any direct impact on this species would be considered potentially substantial.

To avoid and minimize the potential for effects to special status reptile species, **MM BIO-17** would be implemented which requires that a pre-construction survey for special status reptile species shall be conducted by a qualified biologist in suitable habitat within the proposed impact

[38] CEQA provides protection not only for federal and state-listed species, but also for any species that can be shown to meet the criteria for listing (State CEQA Guidelines, Section 15380).

[39] CEQA provides protection not only for federal and state-listed species, but also for any species that can be shown to meet the criteria for listing (State CEQA Guidelines, Section 15380).

area. If any special status reptile species is observed within the Alternative 2 impact area, a reptile relocation plan shall be prepared and submitted to the City, Caltrans, and CDFW for review and approval. The reptile relocation plan shall identify the parameters of any potential relocation effort including: the qualifications of the biologist to monitor construction activities in suitable habitat, and to capture and relocate any special status individuals observed within the impact area; methods to capture and relocate the relevant special status species; and precise locations of the suitable habitat within the BWER to relocate the captured species to.

With implementation of **MM BIO-17,** Alternative 2 would result in a less than substantial effect related to coastal whiptail and coast horned lizard.

San Bernardino Ringneck Snake

Suitable habitat is present in the BSA for the San Bernardino ringneck snake and this species has been observed during surveys for the BWER. Therefore, this species has a high potential to occur in the BSA. Alternative 2 would impact a total of 7.849 acre of potential habitat for these species (2.327 acre permanent; 5.522 acre temporary). Although Alternative 2 would result in a minimal loss of suitable habitat relative to the amount available along the Project region (7.849 acres impacted of the 52.164 acres identified within the BSA, not including the substantial additional habitat within the BWER); construction activities may result in the direct take of individuals of this species and the number of individuals that could be lost may be potentially substantial. Therefore, direct impacts on this species would be considered potentially substantial.

To avoid and minimize the potential for effects to special status reptile species, **MM BIO-17** would be implemented which requires that a pre-construction survey for special status reptile species shall be conducted by a qualified biologist in suitable habitat within the proposed impact area. If any special status reptile species is observed within the Alternative 2impact area, a reptile relocation plan shall be prepared and submitted to the City, Caltrans, and CDFW for review and approval. The reptile relocation plan shall identify the parameters of any potential relocation effort including: the qualifications of the biologist to monitor construction activities in suitable habitat, and to capture and relocate any special status individuals observed within the impact area; methods to capture and relocate the relevant special status species; and precise locations of the suitable habitat within the BWER to relocate the captured species to.

With implementation of **MM BIO-17,** Alternative 2 would result in a less than substantial effect related to San Bernardino ringneck snake.

Two-Striped Garter Snake

Suitable habitat for two-striped garter snake is located in the BSA but this species was not observed during general surveys of the BSA or during surveys of the BWER (CDFW 2017a). Therefore, this species a low potential to occur in the BSA. Alternative 2 would impact a total of 3.083 acre of suitable habitat for this species (0.700 acre permanent; 1.393 acre temporary). Although Alternative 2would result in a minimal loss of suitable habitat relative to the amount available along the Project region (3.156 acres impacted of the 12.309 acres identified within the BSA, not including the substantial additional habitat within the BWER); construction activities may result in the direct take of individuals of this species and the number of individuals that could be lost may be potentially substantial, if the species is present. Additionally, this species meets the definition of Section 15380[40] of the State CEQA Guidelines; therefore, any direct impact on this species would be considered potentially substantial.

To avoid and minimize the potential for effects to special status reptile species, **MM BIO-17** would be implemented which requires that a pre-construction survey for special status reptile species shall be conducted by a qualified biologist in suitable habitat within the proposed impact area. If any special status reptile species is observed within the Alternative 2impact area, a reptile relocation plan shall be prepared and submitted to the City, Caltrans, and CDFW for review and approval. The reptile relocation plan shall identify the parameters of any potential relocation effort including: the qualifications of the biologist to monitor construction activities in suitable habitat, and to capture and relocate any special status individuals observed within the impact area; methods to capture and relocate the relevant special status species; and precise locations of the suitable habitat within the BWER to relocate the captured species to.

With implementation of **MM BIO-17,** Alternative 2 would result in a less than substantial effect related to two-striped garter snake.

South Coast Garter Snake

Suitable habitat for south coast garter snake is located in the BSA and this species has been reported in the vicinity of the BSA. However, this species was not observed during general surveys of the BSA or during surveys of the BWER. This species a moderate potential to occur in the BSA. Alternative 2 would impact a total of 3.083 acre of suitable habitat for this species (0.700 acre permanent; 1.393 acre temporary). Although Alternative 2 would result in a minimal loss of suitable habitat relative to the amount available in the Project region (3.156 acres impacted of the 12.309 acres identified within the BSA, not including the substantial additional

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[40] CEQA provides protection not only for federal and state-listed species, but also for any species that can be shown

habitat within the BWER); construction activities may result in the direct take of individuals of this species and the number of individuals that could be lost may be potentially substantial. Additionally, this species meets the definition of Section 15380[41] of the State CEQA Guidelines. Construction activities may result in the direct take of individuals of this species and the number of individuals that could be lost may be potentially substantial. Therefore, direct impacts on this species would be considered potentially substantial.

To avoid and minimize the potential for effects to special status reptile species, **MM BIO-17** would be implemented which requires that a pre-construction survey for special status reptile species shall be conducted by a qualified biologist in suitable habitat within the proposed impact area. If any special status reptile species is observed within the Alternative 2 impact area, a reptile relocation plan shall be prepared and submitted to the City, Caltrans, and CDFW for review and approval. The reptile relocation plan shall identify the parameters of any potential relocation effort including: the qualifications of the biologist to monitor construction activities in suitable habitat, and to capture and relocate any special status individuals observed within the impact area; methods to capture and relocate the relevant special status species; and precise locations of the suitable habitat within the BWER to relocate the captured species to.

With implementation of **MM BIO-17,** Alternative 2 would result in a less than substantial effect related to south coast garter snake.

Cooper’s Hawk

Suitable foraging and nesting habitat for Cooper’s hawk is located in the BSA. This species was observed during surveys of the BSA. Therefore, this species a high potential to occur in the BSA for foraging and nesting. Alternative 2 would impact a total of 0.295 acre of suitable nesting habitat for this species (0.286 acre permanent; 0.009 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region (11.024 total non-developed acres impacted of the 75.794 non-developed acres identified within the BSA, not including the substantial additional habitat within the BWER). Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial. Cooper’s hawk could nest in trees within the BSA. Tree removal and/or nearby construction could adversely affect nesting efforts for this species. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active Cooper’s hawk nest would be considered a violation of the California Fish

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[41] CEQA provides protection not only for federal and state-listed species, but also for any species that can be shown to meet the criteria for listing (State CEQA Guidelines, Section 15380).

and Game Code (Sections 3503, 3503.5, and 3513), and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

Also, avoid and minimize potential effects to Cooper's hawk, **MM BIO-18** would be implemented, which requires that a pre-construction survey for nesting raptors shall be done by a qualified biologist within the limits of Project disturbance. Any active nest found during survey efforts shall be mapped on the construction plans. If nesting activity is present, the active site shall be protected until nesting activity ends to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for raptors in the region normally occurs from January 1 to September 1. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to the CDFW and Caltrans. To protect any nest site, the following restrictions on construction would be required between January 1 and September 1 (or until nests are no longer active, as determined by a qualified biologist): (1) clearing limits shall be established a minimum of 500 feet in any direction from any occupied nest and (2) access and surveying shall be restricted within 150 feet of any occupied nest. Any encroachment into the buffer area around the known nest shall only be allowed if it is determined by a qualified biologist that the proposed activity shall not disturb the nest occupants. Construction during the nesting season can occur only at the sites if a qualified biologist determines that fledglings have left the nest.

With implementation of **MM BIO-15 and MM BIO-18,** Alternative 2 would result in a less than substantial effect related to Cooper's hawk.

Northern Harrier

Suitable foraging habitat for northern harrier is located in the BSA and this species was observed; however, it is most likely to occur as a migrant. This species has been nearly eradicated from the coastal slope of the County over the course of the 20th century, but small numbers seem to be breeding in the Antelope Valley. This species is not expected to in the BSA for nesting because it is outside of the species current nesting range but has a high potential to occur as a foraging migrant. Alternative 2 would impact a total of 7.851 acre of suitable foraging habitat for this species (2.327 acre permanent; 5.524 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region (11.024 total non-developed acres impacted of the 75.794 non-developed acres identified within the BSA, not including the substantial additional habitat within the BWER). Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial. Also, Northern harrier is not expected to nest in the BSA.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to northern harrier.

Clark's Marsh Wren

Suitable foraging and nesting habitat for Clark's marsh wren is located in the BSA; however, this species is mainly expected to occur for wintering. This species was not observed during general surveys of the BSA. Therefore, this species has a moderate potential to occur in the BSA for foraging and nesting. Alternative 2 would impact a total of 0.002 acre of suitable nesting habitat for this species (0.002 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region (0.002 acres impacted of the 1.002 acres identified within the BSA, not including the substantial additional habitat within the BWER). Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial. Clark's marsh wren could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active Clark's marsh wren nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to Clark's marsh wren.

White-Tailed Kite

Suitable foraging and limited nesting habitat for white-tailed kite is located in the BSA. This species is mainly expected to occur as a post-breeding visitor. This species was not observed during general surveys of the BSA but was observed during surveys of the BWER. Therefore, this species has a high potential to occur for foraging but low potential to occur for nesting in the BSA. Alternative 2 would impact a total of 0.286 acre of suitable nesting habitat for this species (0.286 acre permanent; 0.000 acre temporary). Alternative 2 would contribute to the regional ongoing loss of raptor foraging habitat near the project site. The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region (11.024 total non-developed acres impacted of the 75.794 non-developed acres identified within the BSA, not including the substantial additional habitat within the BWER). Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial. White-tailed kite could nest in the BSA. Tree removal and/or nearby construction could adversely affect nesting efforts for this species. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active white-tailed kite nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513), and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

Also, as required by **MM BIO-18,** a pre-construction survey for nesting raptors shall be conducted by a qualified biologist within the limits of Project disturbance. Construction effects to nesting raptors shall be avoided and minimized as described in **MM BIO-18.**

With implementation of **MM BIO-15** and **MM BIO-18,** Alternative 2 would result in a less than substantial effect related to white-tailed kite.

California Horned Lark

Suitable foraging and limited nesting habitat for California horned lark is located in the BSA. This species was not observed during general surveys of the BSA and has not been reported breeding in the vicinity. Therefore, this species has a moderate potential to occur for foraging but low potential to occur for nesting in the BSA. Alternative 2 would impact a total of 5.995 acre of suitable nesting habitat for this species (1.43 acre permanent; 4.565 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial (5.995 acres impacted of the 33.941 acres identified within the BSA, not including the substantial additional habitat within the BWER). California horned lark could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active Clark's marsh wren nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to California horned lark.

Yellow-Breasted Chat

Suitable foraging and nesting habitat for yellow-breasted chat is located in the BSA. Therefore, this species a high potential to occur in the BSA for foraging and nesting. This species was observed during focused surveys of the BSA and surveys of the BWER. The location where yellow-breasted chat were observed are outside of the Alternative 2 impact site, as depicted in Figure 2.3.3-1. Alternative 2 would permanently impact a total of 0.286 acre of suitable nesting habitat for this species. The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial (0.286 acres impacted of the 2.724 acres identified within the BSA, not including the substantial additional habitat within the BWER). Yellow-breasted chat could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active yellow-breasted chat nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to yellow-breasted chat.

Least Bittern

Suitable foraging and limited nesting habitat for least bittern is located in the BSA. Therefore, this species a moderate potential to occur in the BSA for foraging and a low potential to occur for nesting. This species was not observed during general surveys of the BSA and surveys of the BWER. Alternative 2 would impact a total of 0.002 acre of suitable nesting habitat for this species (0.000 acre permanent; 0.002 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region (0.002 acres impacted of the 1.687 acres identified within the BSA, not including the substantial additional habitat within the BWER). Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial. Least bittern could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on a least bittern nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to least bittern.

Loggerhead Shrike

Suitable foraging and nesting habitat for loggerhead shrike is located in the BSA. Therefore, this species a high potential to occur in the BSA for foraging and a moderate potential to occur for nesting. This species was not observed during general surveys of the BSA and surveys of the BWER. Alternative 2 would impact a total of 1.854 acre of suitable habitat for this species

(0.897-acre permanent; 0.957-acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. This impact would be considered adverse, but less than substantial (1.854 acres impacted of the 18.223 acres identified within the BSA, not including the substantial additional habitat within the BWER). Loggerhead shrike could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on a loggerhead shrike nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to loggerhead shrike.

California Black Rail

Suitable foraging and nesting habitat for California black rail is located in the BSA; however, this species is mainly expected to occur as a migrant. This species was not observed during general surveys of the BSA and historically was reported in the vicinity of the BSA, but no recent breeding records. Therefore, this species has a low potential to occur in the BSA for foraging and nesting. Alternative 2 would impact a total of 0.002 acre of suitable nesting habitat for this species (0.000 acre permanent; 0.002 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial (0.002 acres impacted of the 5.988 acres identified within the BSA, not including the substantial additional habitat within the BWER). California black rail could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on a California black rail nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to California black rail.

Osprey

Suitable foraging and limited nesting habitat for osprey is located in the BSA; however, this species has not been reported breeding in the vicinity. This species was not observed during general surveys of the BSA or during surveys of the BWER. Therefore, this species has a high potential to occur for foraging but low potential to occur for nesting in the BSA. Alternative 2 would impact a total of 0.286 acre of suitable nesting habitat for this species (0.286 acre permanent; 0.000 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. This impact would be considered adverse, but less than substantial (2.868 acres of open water impacted of the 9.268 acres of open water identified within the BSA, not including the substantial additional habitat within the BWER). Osprey could nest in the BSA. Tree removal and/or nearby construction could adversely affect nesting efforts for this species. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513), and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to osprey.

Double-Crested Cormorant

Suitable foraging and nesting habitat for double-crested cormorant is located in the BSA. Therefore, this species a high potential to occur in the BSA for foraging and nesting. This species was observed during general surveys of the BSA. Alternative 2 would impact a total of 0.286 acre of suitable nesting habitat for this species (0.286 acre permanent; 0.000 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. This impact would be considered adverse, but less than substantial (2.868

acres of open water impacted of the 9.268 acres identified within the BSA, not including the substantial additional habitat within the BWER). Double-crested cormorant could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active double-crested cormorant nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to double-crested cormorant.

White-Faced Ibis

Suitable foraging and limited nesting habitat for white-faced ibis is located in the BSA; however, this species has historically been known to breed in the Ballona marshes but now only known to breed at Piute Ponds for the entirety of the county's breeding season population (Allen, Garrett, and Wimer 2016). This species was not observed during general surveys of the BSA or during surveys of the BWER. Therefore, this species has a high potential to occur for foraging but low potential to occur for nesting in the BSA. Alternative 2 would impact a total of 0.002 acre of suitable nesting habitat for this species (0.000 acre permanent; 0.002 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial (0.002 acres impacted of the 1.687 acres identified within the BSA, not including the substantial additional habitat within the BWER). White-faced ibis could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active white-faced ibis' nest would be considered a violation of the *California Fish and Game Code* (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to white-faced ibis.

Yellow Warbler

Suitable foraging and nesting habitat for yellow warbler is located in the BSA. Therefore, this species a high potential to occur in the BSA for foraging and moderate for nesting. This species was observed during general surveys of the BSA. Alternative 2 would impact a total of 0.286 acre of suitable nesting habitat for this species (0.286 acre permanent; 0.000 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. This impact would be considered adverse, but less than substantial (0.286 acres impacted of the 2.724acres identified within the BSA, not including the substantial additional habitat within the BWER). Yellow warbler could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active yellow warbler nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to yellow warbler.

Yellow-Headed Blackbird

Suitable foraging and limited nesting habitat for yellow-headed blackbird is located in the BSA; however, this species is mainly expected to occur as a migrant. This species was not observed during general surveys of the BSA or during surveys of the BWER. Therefore, this species has a moderate potential to occur for foraging but low potential to occur for nesting in the BSA. Alternative 2 would impact a total of 0.002 acre of suitable nesting habitat for this species (0.000 acre permanent; 0.002 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. Further, the number of individuals with potential to occur onsite are low and the limited loss of foraging habitat would not likely have an effect on regional populations. This impact would be considered adverse, but less than substantial (0.002 acres impacted of the 1.002 acres identified within the BSA, not including the substantial additional habitat within the BWER). Yellow-headed blackbird could nest in the BSA. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Direct effects on an active yellow-headed blackbird nest would be considered a violation of the California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. Any impact on an active nest would be considered substantial.

To reduce this potential effects to a less than substantial level, **MM BIO-15** would be implemented requiring preparation and implementation of a nesting bird management plan and requiring that a biologist conduct a preconstruction nesting bird survey prior to vegetation clearing.

With implementation of **MM BIO-15,** Alternative 2 would result in a less than substantial effect related to yellow-headed blackbird.

Burrowing Owl

Suitable foraging habitat for burrowing owl is located in the BSA; however, this species is mainly expected to occur as a migrant or for wintering. The BSA is outside of the species current range for nesting and the species is not expected to nest within the BSA. This species was not observed during the habitat assessment and burrow surveys, no suitable burrows were observed during the surveys; however, observations of the species are documented from within the BWER. Therefore, this species has a moderate potential to occur for foraging and wintering in the BSA. Alternative 2 would impact a total of 7.851 acre of suitable foraging habitat for this species (2.327 acre permanent; 5.524 acre temporary). The loss of foraging habitat for this species would be limited relative to the availability of similar habitat in the region. This impact would be considered adverse, but less than substantial (7.849 acres impacted of the 55.954 acres identified within the BSA, not including the substantial additional habitat within the BWER).

To avoid and minimize potential effects, **MM BIO-19** would be implemented, which requires that a qualified biologist shall conduct wintering/breeding protocol burrowing owl surveys in accordance with CDFW's 2012 Staff Report on Burrowing Owl Mitigation to determine whether or not owls are present within the project site no more than one year of beginning construction. If burrowing owls are detected, a Burrowing Owl Management Plan will be prepared and that will then be submitted to CDFW and Caltrans for review and approval prior to commencement of construction. The Burrowing Owl Management Plan will be based on CDFW's 2012 Staff Report on Burrowing Owl Mitigation and address owl specific minimization and avoidance measures, and measures to protect occupied habitat. The Burrowing Owl Management Plan will include mitigation for impacted occupied burrows at no less than a 3:1 ratio by installation of artificial burrows.

Additional focused surveys for burrowing owl are being conducted within the project site in the 2024 survey season. Information on the results of these surveys will be provided along with the Final EIR/EA.

With implementation of **MM BIO-19,** Alternative 2 would result in a less than substantial effect related to burrowing owl.

Special-Status Birds With Limited Occurrence Within the BSA

Several special-status bird species could occasionally occur within the BSA as non-breeding foragers based on previous surveys of the BSA and the results of the literature review. These species are grouped together because they are not expected to nest within the BSA and because affects will be minimal, if at all, by Alternative 2.

Several other special-status wildlife species may occur in the BSA only as occasional foragers, migrants, or transients; these include the sharp-shinned hawk (*Accipiter striatus*), southern California rufous-crowned sparrow *(Aimophila ruficeps canescens*), grasshopper sparrow (*Ammodramus savannarum*), Bell's sage sparrow (*Artemisiospiza belli bellii*), short-eared owl (*Asio flammeus*), long-eared owl (*Asio otus*), redhead (*Aythya americana*), brant (*Branta bernicla*), American bittern (*Botaurus lentiginosus*), ferruginous hawk (*Buteo regalis*), rhinoceros auklet (*Cerorhinca monocerata*), Vaux's swift (*Chaetura vauxi*), mountain plover (*Charadrius montanus*), black tern (*Chilidonias niger*), olive-sided flycatcher (*Contopus cooperi*), yellow rail (*Coturnicops noveboracensis*), black swift (*Cypseloides niger*), fulvous whistling-duck (*Dendrocygna bicolor*), merlin (*Falco columbarius*), American peregrine falcon (*Falco peregrinus anatum*), prairie falcon (*Falco mexicanus*), tufted puffin (*Fratercula cirrhata*), common loon (*Gavia immer*), harlequin duck (*Histrionicus histrionicus*), Caspian tern (*Hydroprogne caspia*), California gull (*Larus californicus*), laughing gull (*Leucophaeus atricilla*), wood stork (*Mycteria americana*), long-billed curlew (*Numenius americanus*), fork-tailed storm-petrel (*Oceanodroma furcate*), ashy storm-petrel (*Oceanodroma homochroa*), black storm-petrel (*Oceanodroma melania*), Lucy's warbler (*Oreothlypis luciae*), Virginia's warbler (*Oreothlypis virginiae*), large-billled savannah sparrow (*Passerculus sandwichensis rostratus*), American white pelican (*Pelecanus erythrorhynchos*), California brown pelican (*Pelecanus occidentalis californicus*), summer tanager (*Piranga rubra*), Oregon vesper sparrow (*Pooecetes gramineus affinis*), purple martin (*Progne subis*), Cassin's auklet (*Ptychoramphus aleuticus*), vermilion flycatcher (*Pyrocephalus rubinus*), black skimmer (*Rynchops niger*), Brewer's sparrow (*Spizella breweri*), and elegant tern (*Thalasseus elegans*). None of these species are expected to breed on, or regularly use the BSA, as the BSA is not within their breeding range and/or does not contain breeding habitat; therefore, these species are not expected to be adversely affected by Project activities. Suitable foraging habitat for these species is abundant in the region, and the BSA represents a minor fraction of foraging habitat available to these species regionally.

A small amount of potential foraging habitat will be permanently or temporarily impacted by Alternative 2, and small numbers of individual species may be temporarily disturbed during construction. In addition, the number of individuals of these species that forage in the BSA is low and the effects of Alternative 2 on non-breeding habitat for these species are not expected to result in impacts on regional populations. Therefore, no long-term effects on populations of these species is expected.

These species are not expected to nest in the BSA, and occasional foraging individuals are not expected to be impacted directly by Alternative 2, as they can easily flee construction activities before injury or mortality occurs.

Therefore, Alternative 2 would result in a less than substantial effects related to these other special status bird species.

Roosting Bats

Bats are known to roost under or in association with bridges, and several species may roost in trees in the BSA as well, so the potential for the BSA to support roosting bats was assessed. Special-status bats with potential to roost in the BSA include pallid bat (*Antrozous pallidus*), silver-haired bat (*Lasionycteris noctivagans*), western red bat (*Lasiurus frantzii*), western yellow bat (*Dasypterusxanthinus*), hoary bat (*Aeorestes cinereus*), Yuma myotis (*Myotis yumanensis*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), and big free-tailed bat (*Nyctinomops macrotis*). Further, common species of bat, such as Mexican free-tail (*Tadarida brasiliensis*) and California myotis (*Myotis californicus*), have potential to have large maternity colonies in structures, such as bridges and culverts, located within the BSA.

Focused surveys for bats were not done as part of the Project; however, suitable foraging and roosting habitat for hoary bat, Yuma myotis, and silver-haired bat is located in the BSA. These species were observed during 2014 bat surveys within the BWER. Therefore, these species have a moderate and high potential to occur in the BSA. Suitable foraging and roosting habitat for western yellow bat, pallid bat, western red bat, pocketed free-tailed bat, and big free-tailed bat is located in the BSA; however, these species were not observed during bat surveys for the BWER. These species have a moderate potential to occur in the BSA. Alternative 2 would impact a total of 22.404 acres of suitable habitat for these species (12.087 acres permanent; 10.317 acres temporary). The loss of habitat for this species would be limited relative to the availability of similar habitat in the region. This impact would be considered adverse, but not substantial (22.404 acres impacted of the 131.809 acres identified within the BSA, not including the substantial additional habitat within the BWER).

If the structures or vegetation within the Alternative 2 impact area support an active bat maternity roost during bridge demolition or vegetation removal activities associated with Alternative 2, impacts have potential to be substantial.

Therefore, **MM BIO-20** would be implemented, which requires that bridge demolition or vegetation removal activities within potential bat roosting habitat shall avoid the maternity roosting season (March 1 to October 1) to the extent feasible. If work must be conducted within the maternity roosting season, prior to the start of work within or near trees, bridges or other structures within the work area, a qualified bat biologist shall conduct a preconstruction survey to determine if bats are roosting within the Alternative 2 work area. If bats are not roosting, no further mitigation is required. If bats are roosting, all maternity roosts shall be avoided and an appropriate no-disturbance buffer shall be established at the discretion of a qualified bat biologist. No work shall be allowed within the buffer during maternity roosting without prior approval by CDFW. A combination of acoustic surveys of habitat around structures, structure inspection, and exit counts shall be used to survey the area that may be directly or indirectly impacted by Alternative 2. As bats may utilize dense tree canopies, snags, or bridges over creeks/water, these habitat types should be specifically surveyed. Foraging areas should also be identified and specific flight routes to those foraging areas as well. Bats shall be identified to the most specific taxonomic level possible, and roosts shall be evaluated to determine their size and significance. Bat surveys shall include: 1) the location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number of bats present at the time of visit (count or estimate); 3) all species of bat observed shall be identified to the best extent feasible (include how the species was identified); 4) the location, approximate amount and distribution of all bat droppings shall be described and shown on a map; 5) the type of roost; night roost (rest at night while out feeding) versus a day roost (maternity colony) shall also be clearly stated; and 6) all survey results shall be provided to CDFW and Caltrans.

Also, as required by **MM BIO-21**, prior to felling any tree with potential to support tree-roosting bat species, the following procedures shall be applied: 1) Trees shall only be trimmed and and/or felled outside of the maternity roosting season (prior to March 1 or after October 1); 2) All tree felling and removal shall be conducted under the direction of a qualified bat biologist; 3) All trees shall be removed in two stages, where in the first stage, the tree will be felled by slowly lowering it to the ground (either the entire tree or large, intact portions of the tree) and left on the ground, untrimmed and uncovered for a minimum of 24 hours allowing bats to leave during the night, followed by the second stage of removal where the tree can then be dismantled or cut into smaller parts and removed.

As required by **MM BIO-22**, if bats are determined by a qualified biologist to be roosting within bridges and other structures within the work area and unavoidable Project-related impacts to the roosting bats are anticipated, bats shall be humanely evicted and excluded from those structures. The humane eviction/exclusion shall be conducted in the fall (October or November) preceding work activities that could affect roosting bats. Exclusion in the fall is recommended to avoid impacts to hibernating bats (typically December through February in southern California) or a maternity roost (typically April through August in southern California) when roost occupants are not able to evacuate.

Finally, **MM BIO-23** would be implemented, which contains requirements for the humane eviction of bats, if required. During installation of humane eviction/exclusion materials, each crevice shall be inspected using flashlights or fiber optic scopes for the presence of day-roosting bats. At crevices where the absence of day-roosting bats is confirmed, the crevices immediately shall be sealed using materials such as foam backer rod or pipe insulation secured with adhesive to prevent bats from entering and using the crevices. At crevices where bats are visibly present or where absence cannot be confirmed, humane eviction devices shall be installed that would allow the bats to exit the crevice but prevent them from returning. The qualified biologist performing the humane eviction shall determine the exact type of eviction device to be installed and exclusionary device used. The eviction device shall remain in place for at least 14 days following installation to allow sufficient time for all the bats to vacate the crevice. After the eviction period, the eviction device shall be removed, and exclusion material installed. The exclusion material shall remain in place for the duration of work activities and shall be inspected weekly by a qualified biologist. All aspects of the humane eviction/exclusion of bats shall be supervised directly and monitored by a qualified biologist approved by CDFW. Following completion of activities that could impact roosting bats, the exclusion devices shall be removed by the contractor (under supervision of the qualified biologist) to allow bats to return to the roost crevices.

With implementation of **MM BIO-20** through **MM BIO-23**, Alternative 2 would result in a less than substantial effect related to roosting bats.

South Coast Marsh Vole and Southern California Saltmarsh Shrew

The south coast marsh vole and southern California saltmarsh shrew are similarly associated with marsh habitats in the BSA. These species are assessed together because potential impacts of Alternative 2 on these species will be similar. Focused trapping surveys for mammals were not done as part of Alternative 2; however, suitable habitat for south coast marsh vole and southern California saltmarsh shrew is located in the BSA and these species were observed during surveys of the BWER. Therefore, these species are assumed to be present within the BSA and to have a high potential to occur in the BSA. Alternative 2 would impact a total of 0.002 acre of suitable habitat for these species (0.000 acre permanent; 0.002 acre temporary). The effects of Alternative 2 are considered adverse, but less than substantial because Alternative 2 would result in a minimal loss of suitable habitat relative to the amount available along Ballona Creek and the adjacent BWER.

To avoid and minimize potential effects to south coast marsh vole and southern California saltmarsh shrew, **MM BIO-24** would be implemented which require that prior to the start of the construction day and at the end of the construction day, all open trenches, holes, or other excavations shall be inspected by the qualified biologist for the presence of small mammals and other wildlife prior to backfilling. Excavations that remain open overnight shall be covered to prevent wildlife from becoming trapped. If any small mammals are observed in the trenches or excavated areas, a ramp will be placed in the trench/excavated area to allow the animal to escape, or a qualified biologist shall relocate any animals found within excavated areas.

With implementation of **MM BIO-24,** Alternative 2 would result in a less than substantial effect related to south coast marsh vole and southern California saltmarsh shrew.

American Badger

Focused surveys for mammals were not done as part of Alternative 2; however, limited suitable habitat for American badger is located in the BSA. This species was not observed during surveys of the BWER. There are no known occurrences in the vicinity of the BSA (CDFW). Therefore, these species have low potential to occur in the BSA. Alternative 2 would impact a total of 7.849 acre of suitable habitat for these species (2.327 acre permanent; 5.522 acre temporary). The effects of Alternative 2 are considered adverse, but less than substantial because Alternative 2 would result in a minimal loss of suitable habitat relative to the amount available along Ballona Creek and the adjacent BWER (7.849 acres impacted of the 55.954 acres identified within the BSA, not including the substantial additional habitat within the BWER).

Therefore, Alternative 2 would result in a less than substantial effect related to American badger.

Operational Effects

Operation of Alternative 2 has potential effects to wildlife via noise, altered wildlife movement, and night lighting. Assessment of these effects are discussed below in addition to the collective construction and operational effects of Alternative 2 on non-listed or candidate special status wildlife species.

Noise Impacts to Wildlife During Operation of the Project

Once built, Alternative 2 would result in projected noise levels within areas of the BWER nearest SR-1/Lincoln Boulevard of between 1 dBA and 3 dBA higher than existing conditions. In addition to an overall increase in traffic noise from additional vehicles, the widening and realignment of the roadway to the east of its existing location would result in a shift of noise effects by approximately 50 feet to the east into the portions of the BWER that are east of SR-1/Lincoln Boulevard. These minor increases in noise levels would not lead to substantial adverse effects on wildlife. Also, as noted above, wildlife at this location are already exposed to high levels of traffic noise.

Wildlife Movement During Operation of the Project

The BSA is located in an isolated fragment of coastal open space, the BWER, within a highly urbanized landscape. As such, regional movement is currently very limited for wildlife. Alternative 2 would not result in additional habitat fragmentation or barriers to regional wildlife movement above current conditions. Therefore, operation of there Alternative 2 would have no effects on regional wildlife movement.

The presence of the existing roads in the BSA (i.e., SR-1/Lincoln Boulevard, Culver Boulevard, and West Jefferson Boulevard) currently act as a barrier to local wildlife movement. Under current conditions, SR-1/Lincoln Boulevard has two travel lanes in the southbound direction and three travel lanes in the northbound direction; the southbound direction widens to four travel lanes at Jefferson Boulevard. Jefferson Boulevard has two to three travel lanes in each direction. Culver Boulevard has one travel lane in the southwest direction and two lanes in the northeast direction; the Culver Loop provides northbound access to SR-1/Lincoln Boulevard with two lanes from Culver Boulevard to SR-1/Lincoln Boulevard and one lane from SR-1/Lincoln Boulevard onto northeast-bound Culver Boulevard. The Culver overpass provides one travel lane in each direction. Average daily traffic (ADT) forecasts were developed for the segment of SR-1/Lincoln Boulevard between Jefferson Boulevard and Fiji Way for four future year scenarios (Fehr and Peers 2017). The 2011 ADT was measured at 64,931. The existing baseline 2019 ADT was measured as 60,000. Under a no-build scenario, future traffic volumes are estimated at

67,200 and 78,700 for 2030 and 2050, respectively. Under a build scenario, future traffic volumes are estimated at 69,900 and 81,800 for 2030 and 2050, respectively.

Roads with a traffic intensity of over 10,000 vehicles per day were considered a near complete barrier for wildlife movement for most species by multiple authors. Under both existing and estimated future conditions, traffic volumes of well over 10,000 vehicles per day are considered a near complete barrier to local wildlife movement. This is anticipated to occur whether or not Alternative 2 is built. Given the substantial obstacles to wildlife movement that currently exist, development of Alternative 2 would not result in a substantial change from current conditions. Therefore, Alternative 2 is not expected to result in increased mortality of animal species due to vehicle strikes above existing levels.

Night Lighting During Operation of the Project

There is existing lighting within the project site, including traffic signals as well as streetlights along both sides of SR-1/Lincoln Boulevard, along the Culver Boulevard ramp, and along the south side of Culver Boulevard. There is also existing ambient lighting nearby associated with commercial and residential properties adjacent to the project site. There is less existing street lighting within the project site between Fiji Ditch in the north and Culver Boulevard bridge in the south. The entire project site is subject to vehicle headlights at night.

Alternative 2 would result in the removal and replacement of existing streetlights within the project site. Overall, there would be additional streetlights with Alternative 2 than there are in existing conditions. Also, with Alternative 2 the streetlights would be more uniformly distributed throughout the project site.

Permanent Removal of Habitat

As noted above under the Construction Effects discussion, Alternative 2 would result in the permanent removal of habitat for animals.

<u>Cumulative Effects</u>

Alternative 2 would result in temporary impacts to animal species during construction related to the removal of vegetation, noise and vibration, dust and water quality, and increased human presence adjacent to habitat for animal species.

Alternative 2 would result in permanent impacts to animal species including the permanent removal of habitat for animal species and permanent increased noise levels.

In addition to Alternative 2, the Ballona Wetlands Restoration Project would also result in impacts to animal species in the vicinity of the project site. The Draft EIR prepared for the Ballona Wetlands Restoration Project determined that the Ballona Wetland Restoration Project would result in an overall net beneficial effect upon biological resources within the BWER, Ballona Creek, and ultimately within the Pacific Ocean and nearby terrestrial ecosystems. Overall, the Ballona Wetlands Restoration Project would:

- Establish tidal marsh habitat in a region that has experienced severe loss of tidal marsh due to coastal development.
- Improve upland habitat quality for common native and special-status wildlife species though the conversion of invasive-dominated plant communities to native or semi-native grassland and scrubland habitats.
- Permanent loss and removal of upland habitat in the BWER that was artificially created through the placement of fill.
- Displacement and loss of non-native wildlife, and loss of almost all non-native plants, except for an existing eucalyptus grove in the BWER which would remain with implementation of the Ballona Wetlands Restoration Project.

The Draft EIR for the Ballona Wetlands Restoration Project determined that the Ballona Wetland Restoration Project would result in temporary impacts during construction that would be mitigated, but that there would be long-term beneficial effects to animal species with implementation of Alternative 2.

No other cumulative projects would result in substantial effects to animal species.

Therefore, Alternative 2 and cumulative projects would not result in a substantial adverse effect related to animal species.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. Construction of Alternative 2A would not include the re-grading of areas beyond the edge of the future sidewalk at a 2:1 slope west of SR-1/Lincoln Boulevard at this location since a retaining wall would be built instead to avoid these impacts. These areas consist primarily of disturbed non-native stands of mustard in existing conditions, with a small patch of quailbush scrub, which would be re-planted with native plant species once construction work is completed. This would lead to improved biological conditions of these areas in the long-term with Alternative 2 that would not occur with Alternative 2A since Alternative 2A would not remove non-native invasive species in these areas and would not replant them with native species. In summary, Alternative 2A would result in fewer temporary construction impacts to the BWER, but Alternative 2A would not result in re-planting of a slope that is currently covered with non-native invasive grasses. Otherwise, Alternative 2A would result in the same construction effects related to animal species as Alternative 2.

<u>Operational Effects</u>

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER and the west side of SR-1/Lincoln Boulevard north of Culver Boulevard. The retaining wall would provide benefits to wildlife by providing greater physical separation from the roadway at this particular location. However, Alternative 2A would not result in the replanting of the slope west of SR-1/Lincoln Boulevard in the BWER with native plant species since this area would not be graded during construction. Therefore, native species that provide better habitat for native wildlife species would not be established under Alternative 2A on this slope, as would occur with Alternative 2. Otherwise, the operational effects of Alternative 2A related to animal species would be the same as for Alternative 2.

<u>Cumulative Effects</u>

Cumulative effects would be the same as for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

<u>Construction Effects</u>

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which contains a portion of the Fiji Ditch and the Quailbush Scrub vegetation community. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard that contains a portion of Fiji Ditch and California Bulrush Marsh and Quailbush Scrub vegetation communities. Given that California Bulrush Marsh and Quailbush Scrub vegetation communities are natural vegetation communities that provide habitat value for animal species, Alternative 2B would result in reduced construction effects to animal species when compared to Alternative 2.

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch and consists of Quailbush Scrub vegetation community. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard and contains a portion of Fiji Ditch and California Bulrush Marsh and Quailbush Scrub vegetation communities. California Bulrush Marsh and Quailbush Scrub vegetation communities are natural vegetation communities that provide habitat for animal species. Otherwise, the construction effects of Alternative 2B related to animal species would be the same as for Alternative 2.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER. There would be increased temporary construction effects to Menzie’s Golden Bush Scrub and upland mustards vegetation communities with Alternative 2C when compared to Alternative 2. Menzie’s Golden Bush Scrub is considered a sensitive natural community by the CDFW, and both Menzie’s Golden Bush Scrub and upland mustards vegetation provide habitat for animal species. Therefore, Alternative 2C would increase temporary construction effects related to animal species.

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER that contain Menzie’s Golden Bush Scrub and upland mustards vegetation communities. Menzie’s Golden Bush Scrub is considered a sensitive natural community by the CDFW, and both Menzie’s Golden Bush Scrub and upland mustards vegetation provide habitat for animal species. Therefore, Alternative 2C would increase operational effects related to animal species through the permanent removal of potential habitat.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would be the same as Alternative 2 except that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900.

These areas would be exposed to construction noise, vibration, and dust to a similar extent as they would with Alternative 2.

Alternative 2D would require additional grading and permanent improvements within APN 4211-015-900 that would not be constructed under Alternative 2. This area is a part of the BWER and it currently contains semi-natural herbaceous stand and Menzie’s golden bush scrub vegetation communities. Menzie’s Golden Bush Scrub is considered a sensitive natural community by the CDFW, and both Menzie’s Golden Bush Scrub and semi-natural herbaceous vegetation communities provide habitat for animal species.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Avoidance, Minimization, and Mitigation Measures

MM BIO-1 through **MM BIO-4** would be implemented to avoid and minimize effects.

Also, specifically relating to animal species, Alternative 2 would implement the following measures.

- **MM BIO-15**: To ensure the minimization of impacts to nesting avian species, the following measures shall be implemented pursuant to the MBTA and California Fish and Game Code.
    - Prior to construction, a qualified biologist shall prepare a site-specific Nesting Bird Management Plan for CDFW approval. The plan shall detail methods and definitions to enable a qualified biologist to monitor and implement nest-specific buffers based on topography, vegetation, species, and individual bird behavior. The plan shall include requirements for a nest log, which would track each nest and its outcome. The nest log would be submitted to CDFW at the end of each work week for the duration of the avian nesting seasons when construction activities are occurring.
    - For Project activities that will occur during the avian nesting season (generally February 1 – September 1), a qualified biologist shall conduct pre-construction nesting avian surveys no more than three days prior to the initiation of Project construction activities to determine the presence or absence of active nests. The survey shall encompass the project site and a 500-foot-buffer. If a lapse in work of three days or longer occurs during the avian nesting season, another survey shall be conducted prior to work being reinitiated that involves vegetation removal and/or ground disturbance. Further, a qualified biologist shall survey the vegetation removal area every subsequent 72 hours during the avian nesting season until vegetation grubbing and removal is complete. Surveys shall include any potential habitat within 500 feet of active construction activities, including trees, shrubs, and on the ground, or on nearby structures that might be directly or indirectly impacted by Project activities.
    - If active nests are observed, a no-disturbance buffer marked with exclusion fencing or other similarly effective means will be established and maintained until the qualified biologist determines that the nest has fledged or failed. The no-disturbance buffer shall conform to distances identified in the site-specific Nesting Bird Management Plan approved for this project.
- **MM BIO-16**: A qualified biologist shall conduct a pre-construction survey for the wandering (saltmarsh) skipper within the proposed impact area before construction. If this species is observed and is in imminent danger from construction activities, a

qualified biologist shall attempt to relocate the wandering skipper to appropriate habitat outside the impact area or they shall be allowed to leave the impact area on their own.

- **MM BIO-17:** A pre-construction survey for special status reptile species shall be conducted by a qualified biologist in suitable habitat within the proposed impact area. If any special status reptile species is observed within the Project impact area, a reptile relocation plan shall be prepared and submitted to the City, Caltrans, and CDFW for review and approval. The reptile relocation plan shall identify the parameters of any potential relocation effort including: the qualifications of the biologist to monitor construction activities in suitable habitat, and to capture and relocate any special status individuals observed within the impact area; methods to capture and relocate the relevant special status species; and precise locations of the suitable habitat within the BWER to relocate the captured species to.

- **MM BIO-18:** A pre-construction survey for nesting raptors shall be done by a qualified biologist within the limits of Project disturbance. Any active nest found during survey efforts shall be mapped on the construction plans. If nesting activity is present, the active site shall be protected until nesting activity ends to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for raptors in the region normally occurs from January 1 to September 1. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to the CDFW and Caltrans. To protect any nest site, the following restrictions on construction would be required between January 1 and September 1 (or until nests are no longer active, as determined by a qualified biologist): (1) clearing limits shall be established a minimum of 500 feet in any direction from any occupied nest and (2) access and surveying shall be restricted within 150 feet of any occupied nest. Any encroachment into the buffer area around the known nest shall only be allowed if it is determined by a qualified biologist that the proposed activity shall not disturb the nest occupants. Construction during the nesting season can occur only at the sites if a qualified biologist determines that fledglings have left the nest.

- **MM BIO-19**: A qualified biologist shall conduct wintering/breeding protocol burrowing owl surveys in accordance with CDFW's 2012 Staff Report on Burrowing Owl Mitigation to determine whether or not owls are present within the project site no more than one year of beginning construction. If burrowing owls are detected, a Burrowing Owl Management Plan will be prepared and that will then be submitted to CDFW and Caltrans for review and approval prior to commencement of construction. The Burrowing Owl Management Plan will be based on CDFW's 2012 Staff Report on Burrowing Owl Mitigation and address owl specific minimization and avoidance measures, and measures to protect occupied habitat. The Burrowing Owl Management Plan will include mitigation for impacted occupied burrows at no less than a 3:1 ratio by installation of artificial burrows.

- **MM BIO-20:** Bridge demolition or vegetation removal activities within potential bat roosting habitat shall avoid the maternity roosting season (March 1 to October 1) to the extent feasible. If work must be conducted within the maternity roosting season, prior to the start of work within or near trees, bridges or other structures within the work area, a qualified bat biologist shall conduct a preconstruction survey to determine if bats are roosting within the Project work area. If bats are not roosting, no further mitigation is required. If bats are roosting, all maternity roosts shall be avoided and an appropriate no-disturbance buffer shall be established at the discretion of a qualified bat biologist. No work shall be allowed within the buffer during maternity roosting without prior approval by CDFW. A combination of acoustic surveys of habitat around structures, structure inspection, and exit counts shall be used to survey the area that may be directly or indirectly impacted by the Project. As bats may utilize dense tree canopies, snags, or bridges over creeks/water, these habitat types should be specifically surveyed. Foraging areas should also be identified and specific flight routes to those foraging areas as well. Bats shall be identified to the most specific taxonomic level possible, and roosts shall be evaluated to determine their size and significance. Bat surveys shall include: 1) the location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number of bats present at the time of visit (count or estimate); 3) all species of bat observed shall be identified to the best extent feasible (include how the species was identified); 4) the location, approximate amount and distribution of all bat droppings shall be described and shown on a map; 5) the type of roost; night roost (rest at night while out feeding) versus a day roost (maternity colony) shall also be clearly stated; and 6) all survey results shall be provided to CDFW and Caltrans.
- **MM BIO-21:** Prior to felling any tree with potential to support tree-roosting bat species, the following procedures shall be applied: 1) Trees shall only be trimmed and/or felled outside of the maternity roosting season (prior to March 1 or after October 1); 2) All tree felling and removal shall be conducted under the direction of a qualified bat biologist; 3) All trees shall be removed in two stages, where in the first stage, the tree will be felled by slowly lowering it to the ground (either the entire tree or large, intact portions of the tree) and left on the ground, untrimmed and uncovered for a minimum of 24 hours allowing bats to leave during the night, followed by the second stage of removal where the tree can then be dismantled or cut into smaller parts and removed.

- **MM BIO-22:** If bats are determined by a qualified biologist to be roosting within bridges and other structures within the work area and unavoidable Project-related impacts to the roosting bats are anticipated, bats shall be humanely evicted and excluded from those structures. The humane eviction/exclusion shall be conducted in the fall (October or November) preceding work activities that could affect roosting bats. Exclusion in the fall is recommended to avoid impacts to hibernating bats (typically December through February in southern California) or a maternity roost (typically April through August in southern California) when roost occupants are not able to evacuate.
- **MM BIO-23:** During installation of humane eviction/exclusion materials, if needed, each crevice shall be inspected using flashlights or fiber optic scopes for the presence of day-roosting bats. At crevices where the absence of day-roosting bats is confirmed, the crevices immediately shall be sealed using materials such as foam backer rod or pipe insulation secured with adhesive to prevent bats from entering and using the crevices. At crevices where bats are visibly present or where absence cannot be confirmed, humane eviction devices shall be installed that would allow the bats to exit the crevice but prevent them from returning. The qualified biologist performing the humane eviction shall determine the exact type of eviction device to be installed and exclusionary device used. The eviction device shall remain in place for at least 14 days following installation to allow sufficient time for all the bats to vacate the crevice. After the eviction period, the eviction device shall be removed, and exclusion material installed. The exclusion material shall remain in place for the duration of work activities and shall be inspected weekly by a qualified biologist. All aspects of the humane eviction/exclusion of bats shall be supervised directly and monitored by a qualified biologist approved by CDFW. Following completion of activities that could impact roosting bats, the exclusion devices shall be removed by the contractor (under supervision of the qualified biologist) to allow bats to return to the roost crevices.
- **MM BIO-24**: Prior to the start of the construction day and at the end of the construction day, all open trenches, holes, or other excavations shall be inspected by the qualified biologist for the presence of small mammals and other wildlife prior to backfilling. Excavations that remain open overnight shall be covered to prevent wildlife from becoming trapped. If any small mammals are observed in the trenches or excavated areas, a ramp will be placed in the trench/excavated area to allow the animal to escape, or a qualified biologist shall relocate any animals found within excavated areas.

2.3.5 Threatened and Endangered Species

Regulatory Setting

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects plants and animals that the USFWS has listed as "Endangered" or "Threatened". A federally listed species is protected from unauthorized "take," which is defined in the FESA as acts to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct" (16 USC Sections 1532[19] and 1538[a]). In this definition, "harm" includes "any act which actually kills or injures fish or wildlife and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife" (50 Code of Federal Regulations [CFR], Title 50, Section 17.3). FESA and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies (e.g., the FHWA) are required to consult with the USFWS and the NOAA Fisheries Service to ensure they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as specific areas within the geographical range occupied by a species where physical or biological features "essential to the conservation of the species" are found and "which may require special management considerations or protection" (16 USC 1538[5][A]). Critical Habitat may also include areas outside the current geographical area occupied by the species that are nonetheless essential for the conservation of the species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Enforcement of the FESA is administered by the USFWS.

California Endangered Species Act

The State of California implements the California Endangered Species Act (CESA) which is enforced by the CDFW. While the provisions of the CESA are similar to the FESA, CDFW also maintains a list of California Threatened and Endangered species, independent of the FESA Threatened and Endangered species list. It also lists species that are considered Rare and Candidates for listing, which also receive protection. The California list of Endangered and Threatened species is contained in Title 14, Sections 670.2 (plants) and 670.5 (animals) of the California Code of Regulations.

State-listed Threatened and Endangered species are protected under provisions of the CESA. Activities that may result in take of individuals (defined in CESA as acts to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by the CDFW. While habitat degradation or modification is not included in the definition of take under CESA, the CDFW has interpreted take to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

If it is determined that the take would not jeopardize the continued existence of the species, an ITP can be issued by CDFW per Section 2081 of the California Code of Regulations. If a State-listed species is also federally listed, and the USFWS has issued an ITP that satisfies CDFW's requirements, CDFW may issue a consistency finding in accordance with Section 2080.1 of the California Fish and Game Code.

Environmental Setting

Special Status Animal Species Occurrences

One hundred and twenty-eight special status wildlife species have been reported from the region containing the project site are listed in Table 2.3.5-2. Thirty-three of these are federally and/or state listed as Threatened or Endangered or Candidate species and 20 were determined to potentially occur or have been observed within the BSA based on habitat requirements/BSA conditions and include: Crotch bumble bee (*Bombus crotchii*), steelhead-southern California DPS (*Oncorhynchus mykiss irideus* population 10), western spadefoot (*Spea hammondii*), green sea turtle (*Chelonia mydas*), western pond turtle (*Emys marmorata*), tricolored blackbird (*Agelaius tricolor*), marbled murrelet (*Brachyramphus marmoratus*), Swainson's hawk (*Buteo swainsoni*), western snowy plover (*Charadrius alexandrines nivosus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), greater sandhill crane (*Grus canadensis tabida*), bald eagle (*Haliaeetus leucocephalus*), California black rail (*Laterallus jamaicensis corturniculus*), Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), coastal California gnatcatcher (*Polioptila californica californica*), light-footed Ridgway's rail (*Rallus obsoletus levipes*), bank swallow (*Riparia riparia*), California least tern (*Sternula antillarum browni*), and least Bell's vireo (*Vireo bellii pusillus*). The results of relevant surveys, Project impacts, and avoidance and minimization efforts for listed species with a potential to occur within the BSA are discussed in this chapter. Suitable habitat is not present within the BSA for the following species or they have not been reported in the vicinity and not observed during surveys for BWER : San Diego fairy shrimp (*Branchinecta sandiegoensis*), El Segundo blue butterfly (*Euphilotes battoides allyni*), Quino checkerspot butterfly (*Euphydryas editha quino*), Palos Verdes blue butterfly (*Glaucopsyche lygdamus paloverdesensis*), Riverside fairy shrimp (*Streptocephalus woottoni*), Santa Ana sucker (*Catostomus santaanae*), tidewater goby (*Eucyclogobius newberryi*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni)*, Mohave tui chub (*Siphateles bicolor* *mohavensis*), arroyo toad (*Anaxyrus californicus*), California red-legged frog (*Rana draytonii*), rhinoceros auklet (*Cerorhinca monocerata*), and Scripp's murrelet (*Synthiliboramphus scrippsi*). These species are not discussed further. Pacific pocket mouse (*Perognathus longimembris pacificus*) was captured within the alluvial sands of BWER in 1938, but multiple trapping efforts within the BWER and vicinity (trapping efforts occurred 1996, 2000, 2007, 2009, 2010, and 2011) have since determined it is extirpated from the BSA and vicinity and the species is not discussed further within this document.

Additional focused special status wildlife are being conducted within the project site in the 2024 survey season. Information on the results of these surveys will be provided along with the Final EIR/EA.

Federal Endangered Species Act Section 7 Consultation

A USFWS special-status species list was obtained from the Sacramento office of the USFWS in February 2024 (see the USFWS Species List, which is provided in Appendix A). On behalf of the FHWA, Caltrans begain correspondance with USFWS on the Project in December 2023; however, the communication is ongoing and no findings by USFWS have been issued.

California Endangered Species Act Consultation

The City and Caltrans begun correspondence with CDFW in December of 2023 and the communication is ongoing with no findings of affects by CDFW have been issued.

Environmental Consequences

The following sections discuss the state or federally proposed or listed Threatened or Endangered animal species that have the potential to breed on or immediately adjacent to the BSA and/or to regularly use it, that have the potential to be affected by the Project, and/or that are of particular concern to resource agencies and therefore require additional discussion. Species not expected to occur would not be impacted and are not discussed below.

The criteria for determining adverse effects on biological resources were developed based on Caltrans' Guidelines for an NES. In accordance, the following language will be used to describe the magnitude of impacts in this document:

- No effect;
- May affect, not likely to adversely affect;
- May affect, likely to adversely affect.

Alternative 1 – No Build Alternative

<u>Construction Effects</u>

Since Alternative 1 would involve no vegetation removal, grading, or other ground disturbing activities; therefore, Alternative 1 would result in no short-term effects to threatened and endangered species.

<u>Operational Effects</u>

Alternative 1 would have no operational effects related to threatened and endangered species.

<u>Cumulative Effects</u>

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to threatened and endangered species.

Alternative 2 – Base Alternative

<u>Construction Effects</u>

Alternative 2 has potential to both directly and indirectly affect candidate and listed Threatened or Endangered species. Potential indirect affects to all wildlife including candidate and listed species are detailed in Chapter 2.3.4. The discussion below details affects specific to candidate and listed species.

Crotch Bumble Bee (Bombus crotchii)

Suitable habitat for the Crotch bumble bee occurs in the BSA and this species has been reported at the BWER, just southwest of the BSA. This species was not observed during general surveys of the BSA, but has a moderate potential to occur in the BSA. Alternative 2 would impact a total of 7.849 acre of suitable habitat for this species (2.327 acre permanent; 5.522 acre temporary). Due to the species' listing status, any impacts to this species have potential to be adverse. Approximately 52.164 acres of suitable habitat occurs within the BSA with additional suitable habitat occurring across substantial portions of the BWER. The loss of 7.849 acres of suitable habitat would not jeopardize the persistence of the species if they were found to be present.

As required by **MM BIO-25**, no more than one year prior to the start of Project native vegetation removal, a qualified biologist will conduct a pre-construction survey in areas of suitable habitat within the project site to locate active Crotch bumble bee nests, if any. The survey shall be conducted during the peak flight season for a colony's males and workers increasing the likelihood of nest detection, which typically occurs from June through July. If no active Crotch bumble bee nest is observed within the project site during the survey, then the species will be determined to be absent from the project site and no additional measures will be necessary. The survey results will remain valid until February 15 of the following year. If an active nest is determined to be within the project site, then a 500-foot no impact buffer shall be established in vegetated areas around the nest site. The no impact buffer may be removed if permitted following coordination with CDFW.

If no Crotch bumble bee are found during the preconstruction survey noted above, Alternative 2 would not affect the Crotch bumble bee and no further mitigation would be required. If Crotch bumble are found during the preconstruction survey, active nest(s) will be avoided through implementation of a 500-foot avoidance buffer, and the City will obtain an Incidental Take Permit or a Consistency Determination from CDFW to address effects to the Crotch bumble bee. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects, and whether additional compensatory mitigation may be required.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-25**, Alternative 2 may affect but not likely adversely affect Crotch bumble bee.

Steelhead-Southern California Distinct Population Segment (DPS) (Oncorhynchus mykiss irideus population 10)

Focused surveys for special status fish species were not performed for this Project. Steelhead were observed in 2008 within Ballona Creek upstream of the project site beneath the Overland Avenue pass in Culver City and the next closest known occurrences/populations are in the Santa Monica Mountains. Limited suitable aquatic habitat for this species occurs in the BSA but no spawning habitat occurs in the BSA. This species was not observed during general surveys of the BSA and has a low potential to occur in Ballona Creek within the BSA.

Steelhead has a low potential to occur in the BSA. Alternative 2 would remove the existing four-span SR-1/Lincoln Boulevard Bridge over Ballona Creek as well as the three sets of piers/piles that support the existing bridge, which include 987 square feet of existing structural footprint within Ballona Creek. Alternative 2 would construct a new, wider SR-1/Lincoln Boulevard Bridge that would only have three spans. Permanent shading within Ballona Creek would increase with Alternative 2, which includes the replacement of a 64-foot-wide existing bridge structures with a new 130-foot-wide bridge structure. With the widened structure, Alternative 2 would result in 31,850 sf (0.7312 acres) of shading, which is an increase of 16,170 sf (0.3712 acres) from the 15,680 sf (0.3599 acres) of existing shading.

In summary, Alternative 2 would not reduce habitat for steelhead once the replacement SR-1/Lincoln Boulevard Bridge is built. Alternative 2 would increase shading of Ballona Creek; however, this would not substantially effect steelhead.

Temporary impacts within Ballona Creek would also be required to demolish the existing Lincoln Boulevard Bridge over Ballona Creek, and for access and staging needed to construct a replacement bridge over Ballona Creek. Project construction activities may require water flow diversion around impact areas within the creek. Although flow would be diverted, fish passage by the impact areas would still be available and potential species migration would not be prevented from occurring (upstream or downstream). Potential impacts to steelhead may occur but would not likely be adverse.

Although the steelhead has low potential to occur within the BSA and Alternative 2 is not expected to directly affect this species, there is potential for indirect effects during construction.

Also, as detailed in **MM BIO-26**, to avoid direct impacts to steelhead, marine mammals, and sea turtles that may occur in Ballona Creek during in-water construction, a 320-foot (100 meter) safety zone shall be maintained around in-water work areas. At the discretion of the NOAA/NMFS and USFWS, based on the findings of initial biological monitoring, the size or configuration of the in-water marine mammal safety zone may change. The purpose of the marine mammal safety zone is to prevent animal entrapment or to cause hearing loss resulting from pile-driving activities.

Alternative 2 would implement **MM BIO-27**, which requires that a qualified biologist conduct daily surveys during in-water activities in Ballona Creek to inspect the work zone and adjacent waters for marine mammals and sea turtles. Unless otherwise modified by the resource agencies, biological monitoring of in-water work will continue until all earth-moving and noise generating work has been completed within the Ballona Creek channel.

As required by **MM BIO-28**, in-water work activities and/or other activities that could adversely affect steelhead, marine mammals, and/or sea turtles shall be halted if a steelhead, marine mammal, or sea turtle enters the 320-foot marine mammal safety zone and resume only after the animal has been gone from the area for a minimum of 15 minutes.

As set forth in **MM BIO-29,** a “soft start” will be used to initiate pile driving activities within Ballona Creek whereby pile driving will be limited to one or two strikes at less than full strength to allow any steelhead or other fish species present to leave the project site and to allow the biological monitor an opportunity to document the behavior of animals in the project site.

As specified in **MM BIO-30**, biological monitoring shall include underwater noise monitoring, which will be conducted full-time during in-water work. Underwater noise monitoring will be initiated 500 meters from the bridge site. The location of underwater noise monitoring activities will be adjusted as necessary based on measured underwater sound levels so that monitoring is occurring at the location where noise levels are at the 160-dBA threshold based on the behavioral disruption for impulsive noise threshold identified in the NOAA Fisheries In-water Acoustic Thresholds Technical Guidance table (NOAA 2022c). If noise monitoring determines that noise levels are greater than 160 dBA outside of the initial 500-meter area, the qualified biologist will consult with NOAA/NMFS regarding the appropriate avoidance and minimization measures. Construction activities will be stopped when a marine mammal is within the greater than 160 dBA area identified by noise monitoring and will only be resumed when the animal has left the area. In addition, the qualified biologist will confirm that bubble curtains (specified below) are being used effectively and to document and evaluate any fish impacts (including mortality). The biological monitor shall provide monitoring reports following site visits to the City and Caltrans.

As described in **MM BIO-31**, bubble curtains shall be used for in-water work within Ballona Creek to minimize underwater noise disturbance from construction. The bubble curtains shall entirely encircle the active in-water work area (e.g., the pile being removed/installed, placement of riprap; etc.), allowing sufficient space for construction crews to operate. The bubble curtains shall also act as a barrier to prevent green turtle (and other aquatic species) from entering the work area. The bubble curtains shall be moved as the active work area progresses across the channel; at no time shall the bubble curtains entirely eliminate movement up and down the channel (e.g., the bubble curtains shall not span the channel). Bubble curtains will be used in combination with turbidity curtains to manage sediment and silt transport resulting from construction activities.

As required by **MM BIO-32**, sound pressure levels resulting from pile-driving activities shall comply with the *Interim Criteria for Injury to Fish from Pile Driving Activities* (e.g., 206 decibels [dB] peak for all size of fish; 187 dB accumulated sound exposure level [SEL] for fish 2 grams or greater; and 183 dB accumulated SEL for fish less than 2 grams). An acoustical technician shall conduct noise monitoring in collaboration with the biological monitor to ensure that sound pressure levels do not exceed these criteria. A noise monitoring report shall be submitted to the City and Caltrans documenting implementation of noise monitoring requirements.

As set forth in **MM BIO-33**, turbidity curtains shall be deployed around pile removal zones to minimize the spread of turbid plumes outside the construction area within Ballona Creek. During construction, the Contractor shall implement a water quality monitoring program that evaluates and tests for water quality degradation in areas adjacent to and outside the turbidity curtain in Ballona Creek.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities), **MM BIO-19** through **MM BIO-20** (see Chapter 2.3.4, Animal Species), and **MM BIO-27** through **MM BIO-33**, Alternative 2 may affect the species but would not likely adversely affect the species with implementation of the above measures.

Western Spadefoot

Limited suitable breeding habitat with suitable upland habitat is present in the BSA for the western spadefoot. Western spadefoot have not been reported in the vicinity and were not observed during surveys for the BWER. Focused surveys for this species were not conducted for the Project. This species has a low potential to occur in the BSA. Alternative 2 would impact a total of 7.849 acre of potential habitat for this species (2.327 acre permanent; 5.522 acre temporary). Although Alternative 2 would result in a minimal loss of foraging habitat relative to the amount available in the vicinity of the project site (7.849 acres impacted of the 55.954 acres identified within the BSA, not including the substantial additional habitat within the BWER); breeding pools for this species are limited in number. Therefore, an impact on a breeding pool, if both the species and a suitable pool are present, would be considered potentially substantial. Additionally, construction activities may result in the direct take of individuals of this species if the species is present.

To avoid potential effects to western spadefoot, **MM BIO-34** would be implemented, which requires that a focused survey for the western spadefoot shall be conducted by a qualified biologist in suitable habitat within the proposed impact area and a 500-foot buffer prior to construction. If this species is observed and take has potential to occur, Caltrans, on behalf of the FHWA, will undertake Section 7 consultation (or the equivalent) with the USFWS to address effects to the western spadefoot. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects. Otherwise, additional mitigation may be required by USFWS and CDFW through the consultation process.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities), **MM BIO-24** (see Chapter 2.3.4, Animal Species), and **MM BIO-34,** Alternative 2 is not likely adversely effect western spadefoot.

Green Sea Turtle (Chelonia mydas)

Limited habitat for green sea turtle occurs in Ballona Creek and rare sightings have been reported in Ballona Creek. Focused surveys for the green sea turtle were not performed as part of Alternative 2 and this species was not observed during general surveys of the BSA. Due to lack of required water temperatures, food sources, and nesting habitat within Ballona Creek, the project site does not offer suitable foraging or nesting habitat for green sea turtles. Ballona Creek does not provide lagoons and shoals with an abundance of marine grass and algae that would represent potential foraging habitat, nor does it contain any open beaches that would represent potential nesting habitat. Therefore, green sea turtle has a low potential to occur in the BSA.

Alternative 2 would remove the existing four-span SR-1/Lincoln Boulevard Bridge over Ballona Creek as well as the three sets of piers/piles that support the existing bridge, which include 987 square feet of existing structural footprint within Ballona Creek. Alternative 2 would construct a new, wider SR-1/Lincoln Boulevard Bridge that would only have three spans.

Temporary impacts within Ballona Creek would also be required to demolish the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek, and for access and staging needed to construct a replacement bridge over Ballona Creek. Construction activities may temporarily block species from migrating (upstream or downstream).

Green sea turtle feeds on aquatic vegetation and algae, and an increase in shade or loss of available open water habitat has potential to reduce available foraging resources for the species. Similar habitat is abundant throughout the wetted portion of Ballona Creek and along the coast of Southern California. The reduction of available foraging resources that has potential to occur as a result of Alternative 2 would not jeopardize the persistence of the species and any potential impacts would not be adverse. Underwater noise associated with construction activities (specifically pile driving) has potential to effect individual green sea turtles if they occur onsite during construction and such impacts may be adverse.

The green sea turtle is not anticipated within the BSA and Alternative 2 is not expected to directly affect this species, there is potential for indirect effects from construction of Alternative 2.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities), **MM BIO-24** (see Chapter 2.3.4, Animal Species), and **MM BIO-26** through **MM BIO-33**, Alternative 2 may affect the species but would not likely adversely affect the species.

Western Pond Turtle

Suitable habitat for western pond turtle is located in the BSA but this species was not observed during general surveys of the BSA or during surveys of the BWER. Focused surveys for this species were not conducted as part of the Project. This species has a low potential to occur in the BSA. Alternative 2 would impact a total of 3.156 acre of potential habitat for this species

(0.293 acre permanent; 1.393 acre temporary). Although Alternative 2 would result in a minimal loss of suitable habitat relative to the amount available in the region containing the project site (3.156 acres impacted of the 12.309 acres identified within the BSA, not including the additional habitat within the BWER); construction activities may result in the direct take of individuals of this species and the number of individuals that could be lost may be potentially substantial.

To avoid potential effects to western pond turtle, **MM BIO-35** would be implemented, which requires that a focused survey for the western pond turtle shall be conducted by a qualified biologist in suitable habitat within the proposed impact area and a 500-foot buffer prior to construction. If this species is observed and take has potential to occur, Caltrans, on behalf of the FHWA, will undertake Section 7 consultation (or the equivalent) with the USFWS to address effects to the western pond turtle. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects. Otherwise, additional mitigation may be required by USFWS and CDFW through the consultation process.

Also, **MM BIO-31** would be implemented requiring that prior to and during construction activities in the water of Ballona Creek, bubble curtains in combination with turbidity curtains shall be installed/used to minimize underwater noise disturbance from construction. The bubble curtains shall entirely encircle the active work area (e.g., the pile being removed/installed, placement of riprap), allowing sufficient space for construction crews to operate. The bubble curtains shall also act as a barrier to prevent western pond turtle (and other aquatic species) from entering the work area. The bubble curtains shall be moved as the active work area progresses across the channel; at no time shall the bubble curtains entirely eliminate movement up and down the channel (e.g., the bubble curtains shall not span the channel).

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities), **MM BIO-24** (see Chapter 2.3.4, Animal Species), **MM BIO-27, MM BIO-28, MM BIO-29, MM BIO-31,** and **MM BIO-35,** Alternative 2 may affect but not likely adversely affect western pond turtle.

Tricolored Blackbird (Agelaius tricolor)

Suitable foraging habitat, but no nesting habitat, is present for tricolored blackbird in the BSA. This species was not observed during general surveys of the BSA. Tricolored blackbird has a low potential to occur in the BSA for foraging (mainly expected to occur as a vagrant), though it is not expected to occur for nesting. This species has been documented in the Freshwater Marsh southwest of the project site, but only in a foraging role. Aside from a regular wintering flock of several dozen birds in the vicinity of Westchester Park near Manchester Boulevard and SR-

1/Lincoln Boulevard, this species is only a casual visitor to the Ballona Valley. Alternative 2 would impact a total of 6.452 acre of suitable foraging habitat for this species (2.732 acre permanent; 3.720 acre temporary). Approximately 34.943 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 6.452 acres of foraging habitat would not jeopardize the persistence of the species if they were found to be present.

Although no tricolored blackbirds were observed during any surveys, and no nesting habitat is expected to occur within the BSA, Alternative 2 may affect potential foraging habitat.

If this species is observed nesting within the impact area and take is anticipated, the City will obtain an Incidental Take Permit or a Consistency Determination from CDFW to address effects to the tricolored blackbird. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect tricolored blackbird.

Marbled Murrelet (Brachyramphus marmoratus)

Suitable foraging habitat, but no nesting habitat, is present for marbled murrelet in the BSA. This species has a low potential to occur in the BSA for foraging but is not expected to occur for nesting. Alternative 2 would impact a total of 1.795 acre of suitable foraging habitat for this species (0.414 acre permanent; 1.391 acre temporary). Approximately 9.268 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 1.765 acres of foraging habitat would not jeopardize the persistence of the species if they were found to be present.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect marbled murrelet.

Swainson's Hawk (Buteo swainsoni)

Limited suitable foraging habitat, but no nesting habitat is present for Swainson's hawk in the BSA. Therefore, this species has low potential to occur in the BSA for foraging (mainly expected to occur as a vagrant) but it is not expected to nest in the BSA. Alternative 2 would impact a total of 5.995 acre of suitable foraging habitat for this species (1.430 acre permanent; 4.565 acre temporary). Approximately 33.941 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the larger BWER. The loss of

4.565 acres of foraging habitat would not jeopardize the persistence of the species if they were found to be present.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** and **MM BIO-18** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect Swainson's hawk.

Western Snowy Plover (Charadrius alexandrines nivosus)

Limited suitable foraging habitat, but no nesting habitat is present for western snowy plover in the BSA. Western snowy plover has been documented as a regular migrant and rare winter visitor to the adjacent BWER. Therefore, this species has low potential to occur in the BSA for foraging mostly along Ballona Creek but is not expected to occur for nesting.

Although there is foraging habitat within the BSA, there is not any foraging habitat within areas to be impacted. Because Alternative 2 would not affect foraging or nesting habitat for the western snowy plover, no direct or indirect impacts are anticipated.

Therefore, may affect but not likely adversely affect western snowy plover.

Western Yellow-Billed Cuckoo (Coccyzus americanus occidentalis)

Suitable foraging habitat, but no nesting habitat, is present for western yellow-billed cuckoo in the BSA. This species was not observed during general surveys of the BSA. Western yellow-billed cuckoo has a low potential to occur in the BSA for foraging (mainly expected to occur as a vagrant), though it is not expected to occur for nesting.

Alternative 2 would permanently impact a total of 0.286 acre of marginally suitable foraging habitat for this species. Approximately 2.724 acres of marginal foraging habitat occurs within the BSA with additional foraging habitat occurring across portions of the BWER. The permanent loss of 0.286 acres of foraging habitat would not jeopardize the persistence of the species if they were found to be present as vagrants.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect western yellow-billed cuckoo.

Southwestern Willow Flycatcher (Empidonax traillii extimus)

Suitable foraging habitat, but no nesting habitat, is present for southwestern willow flycatcher in the BSA. This species was not observed during general surveys of the BSA and is not known to nest in the area. Southwestern willow flycatcher has a low potential to occur in the BSA for foraging and only with potential to occur as a migrant. Suitable nesting habitat requires riparian forests that are both taller and wider than the arroyo willow thicket present onsite, subsequently, no suitable nesting habitat is present and southwestern willow flycatcher is not expected to occur for nesting.

Alternative 2 would permanently impact a total of 0.286 acre of suitable foraging habitat for this species. Approximately 2.724 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 0.286 acres of foraging habitat (approximately seven percent of similar habitat in the BSA) would not jeopardize the persistence of the species onsite if they were found to be present and any potential impacts would not be adverse.

Additional focused surveys for burrowing owl are being conducted within the project site in the 2024 survey season. Information on the results of these surveys will be provided along with the Final EIR/EA.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect southwestern willow flycatcher.

Greater Sandhill Crane (Grus canadensis tabida)

Suitable foraging, but no suitable nesting habitat is present for greater sandhill crane in the BSA. Therefore, this species may occur in the BSA for foraging, but it is not expected to occur for nesting. It is not currently known to breed in the vicinity and believed to nest in northeastern California.

Alternative 2 would temporarily impact a total of 0.002 acre of suitable foraging habitat for this species. Approximately 5.988 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 0.002 acres of foraging habitat would not jeopardize the persistence of the species onsite if they were found to be present and any potential impacts would not be adverse.

If this species is observed nesting within the impact area and take is anticipated, the City will obtain an Incidental Take Permit or a Consistency Determination from CDFW to address effects to the greater sandhill crane. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects. Otherwise, additional mitigation may be required by CDFW through the permitting process.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect greater sandhill crane.

Bald Eagle (Haliaeetus leucocephalus)

Limited suitable foraging, but no suitable nesting habitat is present for bald eagle in the BSA. Therefore, this species has a low potential to occur in the BSA for foraging as a vagrant and wintering, but it is not expected to occur for nesting.

Alternative 2 would impact a total of 11.014 acre of suitable foraging and overwintering habitat for this species (3.017 acre permanent; 0.731 acre permanent shade; and 7.663 acre temporary). Approximately 76 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 11.014 acres of foraging habitat would not jeopardize the persistence of the species onsite if they were found to be present and any potential impacts would not be adverse.

If this species is observed nesting within the impact area and take is anticipated, the City will obtain an Incidental Take Permit or a Consistency Determination from CDFW to address effects to the bald eagle. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects. Otherwise, additional mitigation may be required by CDFW through the permitting process.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** and **MM BIO-18** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect bald eagle.

California Black Rail (Laterallus jamaicensis corturniculus)

Limited suitable foraging, but no suitable nesting habitat is present for California black rail in the BSA. Therefore, this species has a low potential to occur in the BSA for foraging as a vagrant and wintering, but it is not expected to occur for nesting.

Alternative 2 would temporarily impact a total of 0.002 acre of suitable foraging habitat for this species. Approximately 6 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 0.002 acres of foraging habitat would not jeopardize the persistence of the species onsite if they were found to be present and any potential impacts would not be adverse.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect California black rail.

Belding's Savannah Sparrow (Passerculus sandwichensis beldingi)

Suitable foraging and nesting habitat for Belding's savannah sparrow is located in the BSA. Therefore, this species a high potential to occur in the BSA for foraging and nesting. This species was observed breeding nearby during surveys of the BWER .

Alternative 2 would not directly impact nesting habitat for this species. Because Alternative 2 would not directly affect nesting or foraging habitat for the Belding's savannah sparrow, no direct impacts are anticipated. Construction related impacts, such as noise, may indirectly impact the species and activities affecting the species' nesting activities would likely be adverse.

If this species is observed nesting adjacent to the impact area and take is anticipated, the City will obtain an Incidental Take Permit or a Consistency Determination from CDFW to address effects to the Belding's savannah sparrow. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects. Otherwise, additional mitigation may be required by CDFW through the permitting process.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect Belding's savannah sparrow.

Coastal California Gnatcatcher (Polioptila californica californica)

Protocol surveys for coastal California gnatcatcher were conducted in potentially suitable coastal sage scrub habitats in the BSA between April 6 and May 30, 2017. The results of the surveys indicate that coastal California gnatcatcher did not occupy any of the coastal sage scrub habitats within the BSA. Coastal California gnatcatcher has a moderate potential to forage and a low potential to nest in the BSA based on the results of the previous focused surveys.

Alternative 2 would impact a total of 1.854 acre of suitable foraging and nesting habitat for this species (0.897 acre permanent; 0.957 acre temporary). Approximately 18.250 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 1.854 acres of foraging habitat would not jeopardize the persistence of the species onsite if they were found to be present and any potential impacts would not be adverse. Construction related impacts, such as noise, may indirectly impact the species and activities affecting the species' nesting activities would likely be adverse.

If this species is observed nesting within the impact area and take is anticipated, Caltrans, on behalf of the FHWA, will undertake Section 7 consultation with the USFWS and the City will consult with CDFW to address effects to the coastal California gnatcatcher. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects. Otherwise, additional mitigation may be required by USFWS and CDFW through the consultation process.

As required by **MM BIO-36**, an updated focused survey for the following bird species will be performed no more than two years prior to starting Project construction: coastal California gnatcatcher and least Bell’s vireo. Previous surveys determined these species to be absent from the Project impact area. If the survey results determine that Alternative 2 would directly impact area occupied nesting habitat of coastal California gnatcatcher or least Bell’s vireo, Caltrans, on behalf of the FHWA, will undertake Section 7 consultation with the USFWS to address potential effects. If the survey results determine that Alternative 2 would directly impact area occupied nesting habitat of least Bell’s vireo, the City will also obtain an Incidental Take Permit or a Consistency Determination from CDFW to address potential effects. Agency consultation(s) shall confirm that the avoidance and minimization measures listed in these Standard Conditions are sufficient to protect these species from adverse effects. Otherwise, additional mitigation required by USFWS or CDFW would be implemented as determined through the permitting process.

Additional focused surveys for coastal California gnatcatcher are being conducted within the project site in the 2024 survey season. Information on the results of these surveys will be provided along with the Final EIR/EA.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities), **MM BIO-15** (see Chapter 2.3.4, Animal Species), and **MM BIO-36**, Alternative 2 may affect but not likely adversely affect coastal California gnatcatcher.

Light-Footed Ridgway’s Rail (Rallus obsoletus levipes)

Limited suitable foraging, but no suitable nesting habitat is present for light-footed Ridgway’s rail in the BSA. Therefore, this species has a low potential to occur in the BSA for foraging, but it is not expected to occur for nesting. It is presumed extirpated as a breeder from the county.

Alternative 2 would temporarily impact a total of 0.002 acre of suitable foraging habitat for this species. Approximately 5.988 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 0.002 acres of foraging habitat would not jeopardize the persistence of the species onsite if they were found to be present.

If this species is observed nesting within the impact area and take is anticipated, the City will undertake Section 7 consultation with USFWS and obtain an Incidental Take Permit or a Consistency Determination from CDFW to address effects to the light-footed Ridgway's rail. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects. Otherwise, additional mitigation may be required by USFWS and CDFW through the permitting process.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect light-footed Ridgway's rail.

Bank Swallow

Suitable foraging, but no suitable nesting habitat is present for bank swallow in the BSA. Therefore, this species has a low potential to occur in the BSA for foraging as a migrant, but it is not expected to occur for nesting.

Alternative 2 would impact a total of 3.156 acres of suitable foraging habitat for this species (0.293 acre permanent; 0.731 acres of permanent shade; and 2.132 acre temporary). Approximately 17.980 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 3.156 acres of foraging habitat would not jeopardize the persistence of the species onsite if they were found to be present.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect bank swallow.

California Least Tern (Sternula antillarum browni)

Suitable foraging, but no suitable nesting habitat is present for California least tern in the BSA. This species was not observed during general surveys of the BSA; however, this species has a high potential to occur in the BSA for foraging but is not expected to occur for nesting.

Alternative 2 would impact a total of 2.868 acre of suitable foraging habitat for this species (0.007 acre permanent; 0.731 acre temporary). The effects of Alternative 2 to this species' foraging habitat is not adverse because Alternative 2 would result in a minimal loss of suitable habitat relative to the amount available along Ballona Creek and within the BWER.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities) and **MM BIO-15** (see Chapter 2.3.4, Animal Species), Alternative 2 may affect but not likely adversely affect California least tern.

Least Bell's Vireo (Vireo bellii pusillus)

Protocol surveys for least Bell's vireo were conducted in potentially suitable riparian habitats in the BSA between April 13 and July 14, 2017. One male least Bell's vireo was detected in the BSA during focused surveys in the arroyo willow thicket vegetation located in the southern portion of the survey area during the first four focused surveys. However, no least Bell's vireos were observed or detected during the last four focused surveys. The results of the surveys indicate that no least Bell's vireo nesting occurred during the previous survey and that the individual observed was not a permanent resident within the BSA. Therefore, least Bell's vireo has a high potential to forage but a moderate potential to nest in the BSA.

Alternative 2 would permanently impact a total of 0.286 acre of suitable foraging and nesting habitat for this species. Approximately 2.724 acres of foraging habitat occurs within the BSA with additional foraging habitat occurring across substantial portions of the BWER. The loss of 0.286 acres of foraging habitat would not jeopardize the persistence of the species onsite if it were determined to have established an onsite territory; however, direct impacts have potential to occur.

If this species is observed nesting within the impact area or take is anticipated, Caltrans, on behalf of FHWA, will notify the USFWS during the Section 7 consultation. Further, the City will obtain an Incidental Take Permit or a Consistency Determination from CDFW to address effects to the least Bell's vireo. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects. Otherwise, additional mitigation may be required by USFWS and CDFW through the permitting process.

As required by **MM BIO-36**, an updated focused survey for the following bird species will be performed no more than two years prior to starting Project construction: coastal California gnatcatcher and least Bell's vireo. Previous surveys determined these species to be absent from the Project impact area. If the survey results determine that Alternative 2 would directly impact area occupied nesting habitat of coastal California gnatcatcher or least Bell's vireo, Caltrans, on behalf of the FHWA, will undertake Section 7 consultation with the USFWS to address potential effects. If the survey results determine that Alternative 2 would directly impact area occupied nesting habitat of least Bell's vireo, the City will also obtain an Incidental Take Permit or a Consistency Determination from CDFW to address potential effects. Agency consultation(s) shall confirm that the avoidance and minimization measures listed in these Standard Conditions are sufficient to protect these species from adverse effects. Otherwise, additional mitigation required by USFWS or CDFW would be implemented as determined through the permitting process.

Additional focused surveys for least Bell's vireo are being conducted within the project site in the 2024 survey season. Information on the results of these surveys will be provided along with the Final EIR/EA.

With implementation of **MM BIO-1** through **MM BIO-4** (see Chapter 2.3.1, Natural Communities), **MM BIO-15** (see Chapter 2.3.4, Animal Species), and **MM BIO-36**, Alternative 2 may affect but not likely adversely affect least Bell's vireo.

<u>Operational Effects</u>

Potential affects to candidate or listed wildlife species associated with operation of Alternative 2 are covered in general terms in Chapter 2.3.4 and discussed in species-specific terms in the Construction Effects section above.

<u>Cumulative Effects</u>

Alternative 2 would result in temporary impacts to threatened and endangered species during construction related to the removal of vegetation, noise and vibration, dust and water quality, and increased human presence adjacent to habitat for these threatened and endangered species.

Alternative 2 would result in permanent impacts to threatened and endangered species including the permanent removal of habitat for these species and permanent increased noise levels.

In addition to Alternative 2, the Ballona Wetlands Restoration Project would also result in impacts to threatened and endangered species in the vicinity of the project site. The Draft EIR prepared for the Ballona Wetlands Restoration Project determined that the Ballona Wetland Restoration Project would result in an overall net beneficial effect upon biological resources within the Ballona Reserve, Ballona Creek, and ultimately within the Pacific Ocean and nearby terrestrial ecosystems. Overall, the Ballona Wetlands Restoration Project would:

- Establish tidal marsh habitat in a region that has experienced severe loss of tidal marsh due to coastal development.
- Improve upland habitat quality for common native and special-status wildlife species though the conversion of invasive-dominated plant communities to native or semi-native grassland and scrubland habitats.

- Permanent loss and removal of upland habitat in the BWER that was artificially created through the placement of fill.
- Displacement and loss of non-native wildlife, and loss of almost all non-native plants, except for an existing eucalyptus grove in the BWER which would remain with implementation of the Ballona Wetlands Restoration Project.

The Draft EIR for the Ballona Wetlands Restoration Project determined that the Ballona Wetlands Restoration Project would result in temporary impacts during construction that would be mitigated, but that there would be long-term beneficial effects to threatened and endangered species with implementation of the Ballona Wetlands Restoration Project.

No other cumulative projects would result in substantial effects to threatened and endangered species.

Therefore, Alternative 2 and cumulative projects would not result in a substantial adverse effect related to threatened and endangered species.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. Construction of Alternative 2A would not include the re-grading of areas beyond the edge of the future sidewalk at a 2:1 slope west of SR-1/Lincoln Boulevard at this location since a retaining wall would be built instead to avoid these impacts. These areas consist primarily of disturbed non-native stands of mustard in existing conditions, with a small patch of quailbush scrub, which would be re-planted with native plant species once construction work is completed. This would lead to improved biological conditions of these areas in the long-term with Alternative 2 that would not occur with Alternative 2A since Alternative 2A would not remove non-native invasive species in these areas and would not replant them with native species. In summary, Alternative 2A would result in fewer temporary construction impacts to the BWER, but Alternative 2A would not result in re-planting of a slope that is currently covered with non-native invasive grasses. Otherwise, Alternative 2A would result in the same construction effects related to threatened and endangered species as Alternative 2.

Alternative 2A would require construction of a permanent retaining wall that would provide a more defined edge between the BWER and the west side of SR-1/Lincoln Boulevard north of

Culver Boulevard. The retaining wall would provide benefits to wildlife by providing greater physical separation from the roadway at this particular location. However, Alternative 2A would not result in the replanting of the slope west of SR-1/Lincoln Boulevard in the BWER with native plant species since this area would not be graded during construction.

<u>Operational Effects</u>

Operational effects would be the same as for Alternative 2.

<u>Cumulative Effects</u>

Under Alternative 2A, cumulative effects related to threatened and endangered species would be the same as described for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

<u>Construction Effects</u>

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which contains a portion of the Fiji Ditch and the Quailbush Scrub vegetation community. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard which contains a portion of Fiji Ditch and California Bulrush Marsh and Quailbush Scrub vegetation communities. Given that California Bulrush Marsh is considered a sensitive natural community by the CDFW, Alternative 2B would result in reduced construction effects to threatened and endangered species when compared to Alternative 2.

Alternative 2B would avoid approximately 107 square feet of right of way acquisition from APN 4224-009-801, which is owned by Southern California Edison and is located on the west side of SR-1/Lincoln Boulevard. This parcel contains a portion of the Fiji Ditch and consists of Quailbush Scrub vegetation community. Also, Alternative 2B would avoid approximately 191 square feet of right of way acquisition from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard and contains a portion of Fiji Ditch and California Bulrush Marsh and Quailbush Scrub vegetation communities. Given that California Bulrush Marsh is considered a sensitive natural community by the CDFW, Alternative 2B would result in reduced permanent impacts to threatened and endangered species when compared to Alternative 2.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and that are identified as open space land uses. There would be increased temporary construction effects to Menzie's Golden Bush Scrub and upland mustards vegetation communities. Menzie's Golden Bush Scrub is considered a sensitive natural community by the CDFW. Therefore, Alternative 2C would increase temporary effects related to threatened and endangered species.

Alternative 2C would increase partial right-of-way acquisition by approximately 1,260 square feet within two parcels that are a part of the BWER that are identified as open space land uses. These areas contain Menzie's Golden Bush Scrub and upland mustards vegetation communities. Menzie's Golden Bush Scrub is considered a sensitive natural community by the CDFW. Therefore, Alternative 2C would increase permanent effects related to threatened and endangered species.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

Construction Effects

Alternative 2D would be the same as Alternative 2 except that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900.

Alternative 2D would require additional grading and permanent improvements within APN 4211-015-900 that would not be constructed under Alternative 2. This area is a part of the BWER and it currently contains semi-natural herbaceous stand and Menzie's golden bush scrub vegetation communities. Menzie's Golden Bush Scrub is considered a sensitive natural community by the CDFW. Therefore, Alternative 2D would increase permanent effects related to threatened and endangered species.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Avoidance, Minimization, and/or Mitigation Measures

MM BIO-1 through **MM BIO-4, MM BIO-15, MM BIO-18,** and **MM BIO-24** would be implemented to avoid and minimize effects.

Also, specifically relating to threatened and endangered species, Alternative 2 would implement the following measures.

- **MM BIO-25:** No more than one year prior to the start of Project native vegetation removal, a qualified biologist will conduct a pre-construction survey in areas of suitable habitat within the project site to locate active Crotch bumble bee nests, if any. The survey shall be conducted during the peak flight season for a colony's males and workers increasing the likelihood of nest detection, which typically occurs from June through July. If no active Crotch bumble bee nest is observed within the project site during the survey, then the species will be determined to be absent from the project site and no additional measures will be necessary. The survey results will remain valid until February 15 of the following year. If an active nest is determined to be within the project site, then a 500-foot no impact buffer shall be established in vegetated areas around the nest site. The no impact buffer may be removed if permitted following coordination with CDFW.

If no Crotch bumble bee are found during the preconstruction survey noted above, Alternative 2 would not have a substantial adverse affect on the Crotch bumble bee and no further mitigation would be required. If Crotch bumble are found during the preconstruction survey, active nest(s) will be avoided through implementation of a 500-foot avoidance buffer, and the City will obtain an Incidental Take Permit or a Consistency Determination from CDFW to address effects to the Crotch bumble bee. The consultation shall confirm that the avoidance and minimization measures listed above are sufficient to protect this species from potential effects, and whether additional compensatory mitigation may be required.

- **MM BIO-26:** To avoid direct impacts to steelhead, marine mammals, and sea turtles that may occur in Ballona Creek during in-water construction, a 320-foot (100 meter) safety zone shall be maintained around in-water work areas. At the discretion of the NOAA/NMFS and USFWS, based on the findings of initial biological monitoring, the size or configuration of the in-water marine mammal safety zone may change. The purpose of the marine mammal safety zone is to prevent animal entrapment or to cause hearing loss resulting from pile-driving activities.
- **MM BIO-27:** A qualified biologist will conduct daily surveys during in-water activities in Ballona Creek to inspect the work zone and adjacent waters for marine mammals, western pond turtles, and sea turtles. Unless otherwise modified by the resource agencies, biological monitoring of in-water work will continue until all earth-moving and noise generating work has been completed within the Ballona Creek channel.
- **MM BIO-28:** In-water work activities and/or other activities that could adversely affect aquatic wildlife, including steelhead, marine mammals, and sea turtles, shall be halted if a steelhead, marine mammal, or sea turtle enters the 320-foot marine mammal safety zone and resume only after the animal has been gone from the area for a minimum of 15 minutes.
- **MM BIO-29:** A “soft start” will be used to initiate pile driving activities within Ballona Creek whereby pile driving will be limited to one or two strikes at less than full strength to allow any steelhead or other fish species present to leave the project site and to allow the biological monitor an opportunity to document the behavior of animals in the project site.
- **MM BIO-30:** Biological monitoring shall include underwater noise monitoring, which will be conducted full-time during in-water work. Underwater noise monitoring will be initiated 500 meters from the bridge site. The location of underwater noise monitoring activities will be adjusted as necessary based on measured underwater sound levels so

that monitoring is occurring at the location where noise levels are at the 160-dBA threshold based on the behavioral disruption for impulsive noise threshold identified in the NOAA Fisheries In-water Acoustic Thresholds Technical Guidance table (NOAA 2022c). If noise monitoring determines that noise levels are greater than 160 dBA outside of the initial 500-meter area, the qualified biologist will consult with NOAA/NMFS regarding the appropriate avoidance and minimization measures. Construction activities will be stopped when a marine mammal is within the greater than 160 dBA area identified by noise monitoring and will only be resumed when the animal has left the area. In addition, the qualified biologist will confirm that bubble curtains (specified below) are being used effectively and to document and evaluate any fish impacts (including mortality). The biological monitor shall provide monitoring reports following site visits to the City and Caltrans.

- **MM BIO-31:** Bubble curtains shall be used for in-water work within Ballona Creek to minimize underwater noise disturbance from construction. The bubble curtains shall entirely encircle the active in-water work area (e.g., the pile being removed/installed, placement of riprap; etc.), allowing sufficient space for construction crews to operate. The bubble curtains shall also act as a barrier to prevent green turtle (and other aquatic wildlife) from entering the work area. The bubble curtains shall be moved as the active work area progresses across the channel; at no time shall the bubble curtains entirely eliminate movement up and down the channel (e.g., the bubble curtains shall not span the channel). Bubble curtains will be used in combination with turbidity curtains to manage sediment and silt transport resulting from construction activities. A qualified biologist shall be present during the initiation of work within the water and shall conduct site visits on an as-needed basis to confirm that bubble curtains are being used effectively. The qualified biologist shall provide monitoring reports to the City and Caltrans following site visits.
- **MM BIO-32:** Sound pressure levels resulting from pile-driving activities shall comply with the *Interim Criteria for Injury to Fish from Pile Driving Activities* (e.g., 206 decibels [dB] peak for all size of fish; 187 dB accumulated sound exposure level [SEL] for fish 2 grams or greater; and 183 dB accumulated SEL for fish less than 2 grams). An acoustical technician shall conduct noise monitoring in collaboration with the biological monitor to ensure that sound pressure levels do not exceed these criteria. A noise monitoring report shall be submitted to the City and Caltrans documenting implementation of noise monitoring requirements.
- **MM BIO-33:** Turbidity curtains shall be deployed around pile removal zones to minimize the spread of turbid plumes outside the construction area within Ballona Creek.

During construction, the Contractor shall implement a water quality monitoring program that evaluates and tests for water quality degradation in areas adjacent to and outside the turbidity curtain in Ballona Creek.

- **MM BIO-34:** Focused visual encounter surveys for the western spadefoot shall be conducted by a qualified biologist in suitable habitat within the proposed impact area and a 500-foot buffer prior to construction. The surveys shall consist of three survey visits with one survey conducted in the month of February, one in March, and one in April. To the extent possible (depending on weather conditions), the surveys will be timed within one week of a storm or series of storms that produces at least one inch of rainfall. The surveys will include diurnal and nocturnal searches to determine the presence of tadpoles or adults. If the species is determined to be absent, no additional measures are necessary. If the species is determined to be onsite or within 500 feet of the impact area, Project activities within suitable habitat shall be postponed until an impact avoidance and minimization plan is approved by CDFW and USFWS and formal consultation or the equivalent with USFWS has been completed. The plan shall identify measures to prevent construction-related impacts from occurring, such as installing silt fencing around the area to be impacted following confirmation that no individuals are present within the area to be fenced.

- **MM-BIO-35:** Focused visual surveys for western pond turtle shall be conducted by a qualified biologist within suitable habitat in the impact area and a 500-foot buffer to locate basking or foraging turtles. A total of four surveys will be conducted during the breeding season of this species (April to August) depending on suitable weather conditions. Surveys will be planned for April to May, since this is when breeding most often occurs, but the schedule may be adjusted by the surveying Biologist. If the species is determined to be absent, no additional measures are necessary. If the species is determined to be onsite or within 500 feet of the impact area, Project activities within suitable habitat shall be postponed until an impact avoidance and minimization plan is approved by CDFW and USFWS and formal consultation or the equivalent with USFWS has been completed. The plan shall identify measures to prevent construction-related impacts from occurring, such as installing silt fencing around the area to be impacted following confirmation that no individuals are present within the area to be fenced. Agency consultation(s) shall confirm that the avoidance and minimization measures identified are sufficient to protect the species from adverse effects. Otherwise, additional mitigation required by USFWS or CDFW would be implemented as determined through the permitting process.

- **MM BIO-36**: An updated focused survey for the following bird species will be performed no more than two years prior to starting Project construction: coastal California gnatcatcher and least Bell's vireo. Previous surveys determined these species to be absent from the Project impact area. If the survey results determine that the Project would directly impact area occupied nesting habitat of coastal California gnatcatcher or least Bell's vireo, Caltrans, on behalf of the FHWA, will undertake Section 7 consultation with the USFWS to address potential effects. If the survey results determine that the Project would directly impact area occupied nesting habitat of least Bell's vireo, the City will also obtain an Incidental Take Permit or a Consistency Determination from CDFW to address potential effects. Agency consultation(s) shall confirm that the avoidance and minimization measures identified are sufficient to protect these species from adverse effects. Otherwise, additional mitigation required by USFWS or CDFW would be implemented as determined through the permitting process.

2.3.6 Invasive Species

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order 13112 requiring federal agencies to “prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species [may] cause” (Clinton 1999). An invasive species is defined as “an alien species[42] whose introduction does or is likely to cause economic or environmental harm to harm to human health”. FHWA guidance issued August 10, 1999 directs the use of the State’s invasive species list, maintained by the California Invasive Species Council to define the invasive plants that must be considered as part of the NEPA analysis for a Project.

Under the Executive Order, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

Environmental Setting

Sixty non-native plant species occur throughout the project site and surrounding area. Many of these are scattered and have low coverage. However, others such as grayish shortpod mustard (*Hirschfeldia incana*), black mustard, crown daisy, and various annual grasses dominate patches of vegetation. Forty-four of these species are listed as invasive weeds by the California Invasive Plant Council (Cal-IPC 2019). Five species have high ratings, meaning they have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Nineteen species have moderate ratings, meaning they have substantial and apparent–but generally not severe–ecological impacts. Twenty of these species have limited ratings, meaning they are invasive, but their ecological impacts are minor on a statewide level. Six of these species on the Cal-IPC list were also listed as noxious weeds on the California Department of Food and Agriculture Noxious Weed List (CDFA 2019). No species on the Federal Weed List (USDA NRCS 2012) were identified within the BSA.

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42 An alien species is “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem” (Clinton 1999).

Environmental Consequences

Alternative 1 – No Build Alternative

Construction Effects

Since Alternative 1 would involve no vegetation removal, grading, or other ground disturbing activities; therefore, Alternative 1 would result in no short-term effects related to invasive species.

Operational Effects

Alternative 1 would have no operational effects related to invasive species.

Cumulative Effects

Since Alternative 1 would involve no construction or operational impacts, Alternative 1 has no potential to contribute to cumulative effects related to invasive species.

Alternative 2 – Base Alternative

Construction Effects

As noted above, there are a variety of invasive species that occur within the project site. Invasive species often are spread accidentally by humans as part of the construction process. Therefore, during construction of Alternative 2 there is the potential for spreading invasive species within and outside of the project site.

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the FHWA, the landscaping and erosion control for Alternative 2 would not use species listed as invasive. All equipment and materials will be inspected for the presence of invasive species and cleaned if dirt or debris potentially carrying invasive species is observed on the inspected equipment or materials. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or next to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

Also, as required by **MM BIO-37**, a Noxious Weed Control Plan shall be prepared by a qualified biologist and submitted to CDFW for review and approval prior to the start of construction. The plan shall include measures to ensure that noxious weeds are not spread and to prevent the establishment of non-native, invasive vegetation. The plan shall be implemented during all Project-related activities, and shall include, but not be limited to, the following: 1) control measures for invasive plant species on the site, 2) Project-specific procedures for handling noxious/invasive plants to prevent sprouting or regrowth, 3) Project-specific procedures for cleaning equipment, and 4) Project-specific transportation of vegetation debris off site. The Noxious Weed Control Plan shall be reviewed during the WEAP training.

Also, during construction vegetation would be removed. Vegetation removal has potential to facilitate colinization of these recently cleared areas by invasive plant species. Therefore, all existing landscaped areas that would be temporarily disturbed by construction of Alternative 2 would receive replacement landscaping with an appropriate native, non-invasive plant palette in consultation with each property owner in accordance with **MM VIS-3**. All proposed landscaping would conform to the latest Model Water Efficient Landscape Ordinance and applicable local ordinances.

With implementation of standard Caltrans practices and **MM BIO-37** and **MM VIS-3**, construction of Alternative 2 is anticipated to reduce the number of invasive plants within the project site and would not contribute to the spread of invasive species.

<u>Operational Effects</u>

Alternative 2 is not expected to contribute to the spread of invasive species once built.

<u>Cumulative Effects</u>

With implementation of Alternative 2 and other cumulative projects, including the Ballona Wetlands Restoration Project, many vegetated areas that currently contain non-native, invasive species would be enhanced through the re-planting of these areas with native plant species.

Alternative 2A – Design Variation A – Retaining Wall Along the West Side of SR-1/Lincoln Boulevard North of the Culver Boulevard Bridge

<u>Construction Effects</u>

Alternative 2A would require approximately 0.65 acres fewer temporary construction easements within the BWER on the west side of SR-1/Lincoln Boulevard from APN 4211-016-900 when compared to Alternative 2. Construction of Alternative 2A would not include the re-grading of areas beyond the edge of the future sidewalk at a 2:1 slope west of SR-1/Lincoln Boulevard at this location since a retaining wall would be built instead to avoid these impacts. These areas consist primarily of disturbed non-native stands of mustard in existing conditions, with a small patch of quailbush scrub. Given that a lesser area would be disturbed by this alternative, Alternative 2A would decrease effects related to invasive species when compared to Alternative 2 as disturbed areas can become more easily established by non-native, invasive plant species.

However, these avoided areas would not benefit from the re-planting with native, non-invasive plant species that would occur with Alternative 2.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2B – Design Variation B – Cantilevered Sidewalks Over Fiji Ditch

Construction Effects

Alternative 2B would avoid approximately 403 square feet of temporary construction easements from APN 4224-009-801, which contains a portion of the Fiji Ditch and the Quailbush Scrub vegetation community. Also, Alternative 2B would avoid approximately 763 square feet of temporary construction easements from APN 4211-007-900, which is LACFCD-owned land on the east side of SR-1/Lincoln Boulevard which contains a portion of Fiji Ditch and California Bulrush Marsh and Quailbush Scrub vegetation communities. Given that less area would be disturbed by this alternative, Alternative 2B would decrease effects related to invasive species when compared to Alternative 2 as disturbed areas can become more easily established by non-native, invasive plant species. However, these avoided areas would not benefit from the re-planting with native, non-invasive plant species that would occur with Alternative 2.

Operational Effects

Operational effects would be the same as for Alternative 2.

Cumulative Effects

Cumulative effects would be the same as for Alternative 2.

Alternative 2C – Design Variation C – Wider Culver Boulevard Bridge

Construction Effects

Alternative 2C would increase temporary construction easements by approximately 240 square feet within two parcels that are a part of the BWER and that are identified as open space land uses. There would be increased temporary construction effects to Menzie's Golden Bush Scrub and upland mustards vegetation communities. Given that a greater area would be disturbed by this alternative, Alternative 2C would increase effects related to invasive species when compared to Alternative 2 as disturbed areas can become more easily established by non-native, invasive plant species. However, these effects would be minimized through the implementation of **MM VIS-3** which requires replacement landscaping for all temporarily impacted areas.

<u>Operational Effects</u>

Operational effects would be the same as for Alternative 2.

<u>Cumulative Effects</u>

Cumulative effects would be the same as for Alternative 2.

Alternative 2D – Design Variation D – Bicycle/Pedestrian Ramp From South Side of Culver Boulevard Bridge to West Side of SR-1/Lincoln Boulevard

<u>Construction Effects</u>

Alternative 2D would be the same as Alternative 2 except that it would provide a bicycle and pedestrian ramp to connect bicycle and pedestrian facilities that would be built along the south side of the Culver Boulevard Bridge downslope to the west side of SR-1/Lincoln Boulevard near the entrance to the Ballona Creek Bike Path. Alternative 2D would require additional grading and the construction of permanent improvements, such as a permanent bicycle/pedestrian ramp, low-level pedestrian lighting, cable-railing along the edges of the ramp, and landscaping within APN 4211-015-900, which is a part of the BWER. These work activities would occur entirely within the 840 square feet of additional permanent right-of-way that would be required from APN 4211-015-900. Therefore, effects of Alternative 2D are covered below under Operational Effects.

<u>Operational Effects</u>

Operational effects would be the same as for Alternative 2.

<u>Cumulative Effects</u>

Cumulative effects would be the same as for Alternative 2.

Avoidance, Minimization, and/or Mitigation Measures

- **MM BIO-37:** A Noxious Weed Control Plan shall be prepared by a qualified biologist and submitted to CDFW for review and approval prior to the start of Project construction. The plan shall include measures to ensure that noxious weeds are not spread and to prevent the establishment of non-native, invasive vegetation. The plan shall be implemented during all Project-related activities, and shall include, but not be limited to, the following: 1) control measures for invasive plant species on the site, 2) Project-specific procedures for handling noxious/invasive plants to prevent sprouting or regrowth, 3) Project-specific procedures for cleaning equipment, and 4) Project-specific transportation of vegetation debris off site. The Noxious Weed Control Plan shall be reviewed during the WEAP training. During site preparation and mobilization, the Contractor shall remove all invasive weeds designated by the Cal-IPC within Project's designated construction staging and storage areas.

Chapter 3 California Environmental Quality Act (CEQA) Evaluation

3.1 Aesthetics

This topic is covered in greater detail within Chapter 2.1.11, Visual/Aesthetics.

Except as provided in Public Resources Code Section 21099, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☒	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

a) Would the project have a substantial adverse effect on a scenic vista?

Less Than Significant With Mitigation Incorporated. Scenic views or vistas are defined in the City of Los Angeles General Plan Conservation Element as a panoramic public view to natural features, including views of the ocean, striking or unusual natural terrain, or unique urban or historic features, also referred to as scenic resources. Public access to views of scenic resources is from parklands, privately and publicly owned sites, and public rights-of-way.

The County of Los Angeles General Plan Conservation and Natural Resources Element defines a scenic viewshed as a view which provides a scenic vista from a given location, such as a highway, a park, a hiking trail, river/waterway, or even from a particular neighborhood. The boundaries of a viewshed are defined by the field of view to the nearest ridgeline. Scenic vistas are not defined by the County, but coastline and mountain/ridgeline views are specifically noted as having scenic value. Scenic viewsheds vary by location and community and can include ridgelines, unique rock outcroppings, waterfalls, ocean views or various other unusual or scenic landforms.

The project site is surrounded by and within the foreground of scenic vistas including views of the BWER, the Santa Monica Mountains to the north, the San Gabriel Mountains to the northeast, and the Westchester bluffs topped with development to the southeast. Views of these scenic vistas would be altered by Alternative 2.

Alternative 2 would widen an existing roadway, which would result in less vegetation in views of the project site. However, there is an existing roadway and this would consist of a marginal increase in hardscape.

Also, Alternative 2 would realign and increase the profiles of the SR-1/Lincoln Boulevard Bridge over Ballona Creek and the Culver Boulevard Bridge over SR-1/Lincoln Boulevard. Bridge designs and profiles are presented within Chapter 1. The higher profile of SR-1/Lincoln Boulevard and these two bridges would alter and reduce some views of the adjacent Ballona Wetland Ecological Reserve and of mountains in the distance.

The SR-1/Lincoln Boulevard Bridge would have a concrete barrier along the edges with a tubular handrailing on the top. In addition to being wider, the replacement SR-1/Lincoln Boulevard Bridge would be approximately 8 feet higher than the existing bridge. For most viewers, the bridge would appear as though it was raised and widened to the east.

The Culver Boulevard Bridge would have a concrete barrier along both edges of the bridge with chain link railing at the top. The chain link railing would end approximately 8.8 feet (105.5 inches) above the proposed roadway deck, which accounts for a 73.5 inch chain link railing atop a 32 inch concrete barrier. The chain-link railing would obscure views for motorists and future bicycle and pedestrian users travelling across the bridge in a similar manner as the existing chain-link railing does in existing conditions on this bridge. In addition to being wider, the replacement Culver Boulevard Bridge would be approximately 16 feet higher than the existing bridge. For most viewers, the bridge would appear as though it was raised although the replacement bridge would appear to be traveling on the same alignment as the existing bridge.

Alternative 2 would include installation of new vertical bicycle delineators and green roadway striping at locations along SR-1/Lincoln Boulevard, which would result in minor alterations to the existing visual environment. However, bicycle delineators and green striping already exist nearby on Jefferson Boulevard. Furthermore, these features would not substantially block views of scenic vistas in any way.

In part to minimize effects to scenic vistas and visual character, landscaping has been incorporated as part of Alternative 2. All existing landscaped areas that would be temporarily disturbed by construction of Alternative 2 would receive replacement plantings. All new landscaping within temporary construction easement areas shall consist of an appropriate native, non-invasive plant palette that would be developed in consultation with each property owner in accordance with **MM VIS-3**. All proposed landscaping would conform to the latest Model Water Efficient Landscape Ordinance and applicable local ordinances. Restoration of temporary impact areas within the BWER would be coordinated with CDFW as detailed in **MM REC-1** and **MM VIS-3.** Restoration of temporary impact areas within Fiji Gateway Park would be coordinated with the County as detailed in **MM REC-4** and **MM VIS-3**.

To maximize compatibility with existing views, during final design and the regulatory permitting process, aesthetic treatments for the new Lincoln and Culver Boulevard bridges would be developed in accordance with **MM VIS-4,** Also as part of **MM VIS-4,** the City and Caltrans will work with stakeholders to further refine the bridge aesthetics for the two replacement bridges, including conducting at least one focused outreach meeting related to aesthetics with California Coastal Commission and CDFW staff as well as an additional public meeting with members of the public. Affected stakeholders will be able to provide input on the preferred architectural style, railings, and coloring of the proposed bridge.

The abutments that would be built under Alternative 2 could potentially be the target of graffiti once constructed, which would detract from the visual environment for viewers. To minimize the effects of these types of activities, during final design anti-graffiti treatments shall be specified for Alternative 2's proposed bridge abutment walls in accordance with **MM VIS-5.**

Alternative 2 would require the relocation of power poles within the project site to accommodate the revised roadway alignment. Alternative 2 would relocate existing street lights and traffic signals, and would install new street lights per current Caltrans and City requirements for roadways. These aspects of Alternative 2 would incrementally increase night lighting and visual clutter in the project site.

Alternative 2 would remove existing fencing located along the edges of SR-1/Lincoln Boulevard and Culver Boulevard within the project site. As required by **MM REC-6**, replacement fencing would be installed as part of Alternative 2 to minimize impacts related to potential trespass into unauthorized areas of the BWER and to minimize wildlife getting onto the roadway. As is the case in existing conditions, the replacement fencing would detract from views of pedestrian, cyclists, and motorists of the BWER. Alternative 2 would result in approximately 200 linear feet more of fencing than in existing conditions.

Based on the studies completed to date, it is the intent of the City and Caltrans to implement noise abatement as part of Alternative 2 in the form of a noise barrier along the east side of SR-1/Lincoln Boulevard south of Ballona Creek along the eastern edge of the right-of-way line. If built, the wall would be approximately 350-feet in length and would be approximately 16 feet in height. If during final design conditions have substantially changed, noise abatement may not be necessary. The final decision on the noise barrier will be made upon completion of the project design and the public involvement process. There is a potential that the property owner and residents of the multi-family units would vote against a noise barrier to preserve views of the BWER and Ballona Creek. Since a final decision on the noise barrier has not yet been made, this impact analysis for visual/aesthetics purposes assumes that the wall would be built since this would result in the greatest visual change from existing conditions[43]. If this noise barrier were constructed as part of Alternative 2, the primary visual effects would be for private views from apartments and apartment balconies within the Fountain Park Apartments. These private viewpoints provide views to SR-1/Lincoln Boulevard in the foreground and the BWER in the background. Assuming a ten-foot average height per story, a 16-foot barrier would fully obstruct private views out to SR-1/Lincoln Boulevard and the BWER for ground floor apartment units on the west side of the complex. Second floor units on the west side of the complex would have partially obscured views. The ground floor and second floor units fronting SR-1/Lincoln Boulevard would experience additional shading as a result of the noise barrier. Private views from units at the third story and above of the Fountain Park Apartments would have only limited alterations to their views since the barrier would end at the bottom of their viewsheds. Private views from the apartments and balconies on the upper floors of the Fountain Park Apartments would not be obstructed since the barrier would only be 16 feet in height. Also, the noise barrier, in addition to the change in profile for SR-1/Lincoln Boulevard, would obscure views from a private recreational area that is south of Ballona Creek, east of SR-1/Lincoln Boulevard, and just north of the Fountain Park Apartments.

With implementation of mitigation measures **MM VIS-1** through **MM VIS-5**, Alternative 2 would result in a less than significant impact related to this threshold.

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[43] Note, the noise analyses in this Draft EIR/EA assume the noise barrier would not be built given this would result in the greatest operational noise impact. There is a potential that the property owner and residents of the multi-family units would vote against a noise barrier to preserve views of the BWER and Ballona Creek.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The California Scenic Highway Program is maintained by Caltrans and identifies scenic highway corridors for preservation and protection of aesthetic value. Caltrans maintains a list of routes that are "adopted" and "eligible." There are three adopted scenic highways in Los Angeles County, all of which are more than 20 miles northeast of the project site. Eligible routes are those that are proposed for further study and may be officially designated when a local jurisdiction adopts a scenic corridor protection program and applies to Caltrans for scenic highway approval. SR-1/Lincoln Boulevard, between State Route 187 (Venice Boulevard) and Interstate 10 (U.S. 10), which begins about 1.5 miles north of the project site and travels farther north, is listed as eligible for designation as a state scenic highway; however, no views of the project site are available from this stretch of SR-1/Lincoln Boulevard due to intervening development in Marina del Rey (Caltrans 2023b).

Given that the project site is not visible from a state scenic highway, Alternative 2 would result is no impact related to this threshold and no mitigation is required.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant With Mitigation Incorporated. The project site is located in an urbanized area of Los Angeles County pursuant to Section 21071 of the State CEQA Guidelines. Given that the project site is located in an urbanized area, the analysis for this threshold focuses on whether Alternative 2 would conflict with applicable zoning and other regulations governing scenic quality.

As discussed in more detail in Chapter 2.1.2, Consistency With Land Use Plans and Policies, Alternative 2 would be consistent with applicable plans and policies relating to aesthetics and visual quality, and would not directly conflict with any such plans or policies, except as described below.

There are policies contained within the City and County General Plans relating to the maintenance of scenic vistas. See the response to Row 15 in Table 2.1.2-1 within Chapter 2.1.2, Consistency with State, Regional, and Local Plans and Programs, for more information related to the consistency analysis regarding this topic. In summary, Alternative 2 would widen, realign, and increase the profile of the existing roadway that would alter views. However, Alternative 2 would include landscaping and other visual features that would minimize visual effects, consistent with City and County policies to protect and reinforce natural and scenic vistas. Alternative 2 would involve acquisition of 1.17 acres from the BWER. These portions of the BWER are not visually significant as they are currently covered with a high proportion of non-native herbaceous plant species. This acquisition of 1.17 acres would represent less than 0.5 percent of the 577-acre BWER; therefore, this proposed acquisition would result in a less than significant visual impact on the BWER as a scenic resource. Alternative 2 would involve a sound wall; however, the visual effects of the barrier would occur to private viewpoints from parcels to the east of the project site. Therefore, visual impacts related to the sound wall would not be considered significant pursuant to CEQA.

Alternative 2 would not underground existing overhead power lines and would instead relocate the existing power lines to accommodate the widened and realigned roadway, which does not fully implement an objective within the Power System Plan of the City of Los Angeles General Plan Infrastructure Systems Element, which is, "To encourage and facilitate the systematic replacement of overhead distribution lines with underground circuits." Similarly, Policy PS/F 6.6 in the Public Services and Facilities Element of the Los Angeles County General Plan state it is a County policy to, "encourage the construction of utilities underground, where feasible." However, this would not result in a significant visual impact because Alternative 2 would result in similar overhead power lines to existing conditions.

As described above under threshold (a), Alternative 2 would be required to implement mitigation measures **MM VIS-1** through **MM VIS-5** to mitigation for impacts related to scenic vistas. These mitigation measures would also be required to minimize Alternative 2's impacts relating to conflicting with applicable zoning and other regulations governing scenic quality.

Therefore, with implementation of mitigation measures **MM VIS-1** through **MM VIS-5**, Alternative 2 would result in a less than significant impact related to this threshold.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

<u>Less Than Significant with Mitigation Incorporated</u>. There is existing lighting within the project site, including traffic signals as well as streetlights along both sides of SR-1/Lincoln Boulevard, along the Culver Boulevard ramp, and along the south side of Culver Boulevard. There is also existing ambient lighting nearby associated with commercial and residential properties adjacent to the project site. There is less existing street lighting within the project site between Fiji Ditch in the north and Culver Boulevard bridge in the south. The entire project site is subject to vehicle headlights at night.

Alternative 2 would result in the removal and replacement of existing streetlights within the project site. Overall, there would be additional streetlights with Alternative 2 than there are in existing conditions. Also, with Alternative 2 the street lights would be more uniformly distributed throughout the project site.

During construction, night lighting would generally not be required since construction activities would occur between 6 a.m. and 9 p.m. in accordance with the City's and County's noise ordinances. However, limited nighttime lighting may be needed during construction within the project site. **MM VIS-1** would be implemented as part of Alternative 2, which requires that any construction night lighting be limited to the maximum extent feasible and that any temporary night lighting be hooded and downcast and that direct illumination be limited to active portions of the project site only.

With implementation of **MM VIS-1,** Alternative 2 would have a less than significant impact related to this threshold.

3.2 Agriculture and Forestry Resources

This topic is also covered within Chapter 2, Affected Environment.

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. There are no properties within the project site that are currently utilized for agriculture or forestry purposes, and there is no sign of agricultural activities within the project site since prior to 1963 (NETR Online 2024a). None of the parcels within the project site that are in the City of Los Angeles are zoned for agriculture or forestry (City of Los Angeles 2023a). Some of the parcels west of SR-1/Lincoln Boulevard within Los Angeles County between south of Fiji Way in the north and the middle of Ballona Creek in the south are zoned as A-1-1, Light Agricultural, which allows for agriculture uses including the growing of various types of crops, as well as greenhouses, and raising of cattle; however, these parcels are all within the BWER or within the active channel of Ballona Creek and are not used for agricultural purposes (Los Angeles County 2023a). Furthermore, pursuant to 14 CCR Section 630, agricultural production is not an allowed use within a designated state Ecological Reserve (CCR 2023a). According to the California Important Farmland Finder maintained by the California Department of Conservation (DOC), areas east of Lincoln are mapped as “Urban and Built-Up Land”[44]. Ballona Creek is mapped as “Water”[45]. Areas adjacent to SR-1/Lincoln Boulevard within the Ballona Creek Ecological Reserve are identified as “Other lands”[46] (DOC 2023a). Therefore, Alternative 2 would not result in the conversion of any lands identified by the DOC as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance Farmland. As such, no impact would occur related to this threshold, and no mitigation is required.

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[44] The California DOC describes areas classified as “Urban and Built-Up land” as being occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.

[45] The California DOC describes areas classified as “Water” as areas with an extent of at least 40 acres.

[46] The California DOC describes areas classified as “Other lands” as land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. No parcels within the project site are currently under a Williamson Act contract (Los Angeles County Assessor 2022a). Therefore, Alternative 2 would have no effect on farmlands. As such, no impacts would occur related to this threshold, and no mitigation is required.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

and

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. There are no parcels zoned as forest land, timberland, or as Timberland Production Zones within the project site (City of Los Angeles 2023a, Los Angeles County 2023a). Also, the project site is not near any designated state, federal, or local forests (CPAD 2022). Furthermore, based on a review of historic aerial imagery, the project site does not contain any parcels devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses (NETR Online 2024a). According to the Natural Environment Study (NES) prepared for the Project, there are no areas within the project site that contain large stands of trees that could be extracted as part of a forestry operation. Therefore, Alternative 2 would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. As such, there would be no impacts, directly, indirectly, or cumulatively to forest lands and no mitigation is required.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. Alternative 2 would not alter the existing environment such that farmland or forest land would be converted to non-agricultural or non-forest uses. As such, no impacts would occur related to this threshold, and no mitigation is required.

3.3 Air Quality

This topic is covered in greater detail within Chapter 2.2.6, Air Quality.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. Alternative 2 would be consistent with the description for the Project that is contained in the 2023 FTIP, the 2020 RTP/SCS, and the 2024 RTP/SCS.

Therefore, Alternative 2 would have no impact related to this threshold and no mitigation is required.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact. Site preparation and roadway construction will involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include CO, NO_X, VOCs, directly emitted PM_{10} and PM2.5, and toxic air contaminants (TACs) such as diesel exhaust particulate matter. Construction activities are expected to temporarily increase traffic congestion in the area at certain stages of Project construction, resulting in temporary increases in emissions from traffic during these delays during construction. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Under the transportation conformity regulations (40 CFR 93.123(c)(5)), construction-related activities that cause temporary increases in emissions are not required to conduct a hot-spot analysis. These temporary increases in emissions are those that occur only during the construction phase and last five years or less at any individual site. These temporary increases in emissions typically fall into two main categories:

- *Fugitive Dust*: A major emission from construction due to ground disturbance. All air districts and the California Health and Safety Code (Sections 41700-41701) prohibit "visible emissions" exceeding three minutes in one hour – this applies not only to dust but also to engine exhaust. In general, this is interpreted as visible emissions crossing the right-of-way line. SCAQMD Rule 403 includes the prohibition against visible dust emissions leaving a project's site boundaries as well as other prohibitions against fugitive dust generation.

  Sources of fugitive dust for Alternative 2 might include temporarily disturbed soils and trucks carrying uncovered loads of soil. Unless properly controlled, vehicles leaving the site may deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

- *Construction equipment emissions:* Diesel exhaust particulate matter is a California-identified toxic air contaminant and localized issues may exist if diesel-powered construction equipment is operated near sensitive receptors.

While construction emissions typically need not be considered in conformity analyses where construction will last for five years or less, they may need to be considered for a wider variety of projects and shorter construction periods for both NEPA and CEQA. The construction period for Alternative 2 would span 2 years. For purposes of conducting a construction emissions analysis for CEQA, construction emissions for Alternative 2 were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.21. The linear land use type (infrastructure) was selected to quantify Project construction emissions. Default data and quantification methodologies for construction emissions of linear projects are integrated from the Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (RCEM), version 9.0.0 (last updated in 2018).

Regional Emissions

Construction emissions were estimated for Alternative 2 using detailed equipment inventories provided within the Road Construction Emissions Model (which was then utilized by CalEEMod) for bridge construction and roadway widening projects. Project construction scheduling information provided by the Project engineers (Psomas) combined with emissions factors from the EMFAC and OFFROAD models. Construction-related emissions for Alternative 2 are presented in Table 3-1. The results of the construction emission calculations are included in Appendix C of the Air Quality Report. The emissions presented are based on the best information available at the time of calculations. The emissions represent the peak daily construction emissions that would be generated by Alternative 2.

Table 3-1 – Construction Emissions for Roadways (Alternative 2)

-	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO (lbs/day)	NO_x (lbs/day)	ROG (lbs/day)	CO_2e (tons/phase)
Land Clearing/ Grubbing	2	1	11	10	1	130
Roadway Excavation	9	4	100	78	9	3,496
Drainage/Utilities/Sub-Grade	5	2	60	46	6	1,848
Paving	1	<1	22	12	1	188
Maximum Daily	9	4	100	78	9	N/A

Source: California Emissions Estimator Model (CalEEMod) version 2022.1.1.21.

Localized Construction Emissions

The nearest sensitive receptors to the Project Site are the existing residential uses located along SR-1/Lincoln Boulevard between the Ballona Creek and Jefferson Boulevard. For Alternative 2, the highest maximum localized daily construction emissions would occur during the grading phase. The maximum localized daily construction emissions for Alternative 2 are provided in Table 3-2.

Table 3-2 –Maximum Localized Daily Construction Emissions for Alternative 2 (lbs/day)

Year	NOx	CO	PM10	PM2.5
Maximum Daily Emissions (Grading Phase)	75	94	7	3

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide.

Sources: Emissions calculations can be found in Appendix Q, Air Quality Appendices.

To minimize localized air quality affects, **MM AQ-1** through **MM AQ-19** would be adhered to, which require that best practices for fugitive dust and construction activities be implemented during construction.

<u>Operational Emissions</u>

Operational emissions consider long-term changes in emissions due to Alternative 2 (excluding the construction phase). The operational emissions analysis compares forecasted emissions for the existing/baseline condition, Alternative 1, and Alternative 2. As shown in Table 2.2.6-8, emissions associated with Alternative 2 would result in a reduction in criteria pollutant emissions as compared to the Alternative 1. The reduction in emissions is associated with the reduction in VMT and increase in the average vehicle speed associated that would result from Alternative 2. As detailed in the TAR (Fehr & Peers 2023a), there would be a decrease in VMT by approximately 1.7% compared to No-Build conditions in 2030 and 4.7% in 2050 with Alternative 2. This reduction in VMT is due to the elimination of the existing southbound bottleneck along SR-1/Lincoln Boulevard, which in the baseline condition causes motorists to use alternate routes that requires travelling a greater distance but are more time efficient.

<u>Conclusion</u>

With implementation of **MM AQ-1** through **MM AQ-19**, Alternative 2 would result in a less than significant impact related to this threshold.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

<u>Less Than Significant Impact</u>. The CO Protocol was developed for project-level conformity (hot-spot) analysis and was approved for use by the USEPA in 1997. It provides qualitative and quantitative screening procedures, as well as quantitative (modeling) analysis methods to assess project-level CO impacts. The qualitative screening step is designed to avoid the use of detailed modeling for projects that clearly cannot cause a violation, or worsen an existing violation, of the CO standards.

Section 4.7.2 of the CO Protocol provides criteria for determining whether a Project is likely to result in higher CO concentrations than those existing within the region at the time of attainment demonstration. Projects potentially creating CO concentrations higher than those existing within the region at the time of attainment demonstration should proceed to Section 4.7.3; other projects should be deemed satisfactory, and no further analysis is needed.

The intersections selected for analysis in the attainment demonstration are the worst or some of the worst within the air basin and includes intersection of Wilshire Boulevard and Veteran Avenue which is described in the attainment demonstration as “The most congested intersection in Los Angeles County. The average daily traffic volume is about 100,000 vehicles/day.” Highland Avenue and Sunset Boulevard was also described as “One of the most congested intersections in the city of Los Angeles.” While Century Boulevard and La Cienega Boulevard was described as “One of the most congested intersections in the city of Los Angeles.” Lastly, Long Beach Boulevard and Imperial Highway contributes to Lynwood air monitoring station which had the distinction of “The Lynwood air monitoring stations consistently records the highest 8-hour CO concentrations in the Basin each year.” As such, the attainment demonstration evaluated intersections in the South Coast Air Basin with the worst LOS and measured CO concentrations.

Alternative 2 would involve only one intersection with a worsening of LOS E or F (Lincoln Boulevard and Jefferson Boulevard). The average peak hour delay for this intersection would worsen to 86.3 seconds due to Alternative 2 in the year 2050. This intersection is marginally above the criteria for LOS F of 80 seconds per vehicle. Intersections analyzed in the attainment demonstration had substantially worse LOS and higher volumes of vehicle traffic as well as higher ambient levels of CO. CO concentrations for the locations under study would be substantially less than those that occurred at the location where attainment has been demonstrated (Wilshire Boulevard and Veteran Avenue). Currently monitored CO concentrations are between 1.6-1.8 ppm for 1-hour concentrations and 1.3 ppm 8-hour concentrations. 1-hour concentrations would have to increase more than tenfold to exceed the 20 ppm 1-hour CAAQS and sevenfold for the 8-hour 9 ppm CAAQS. Cessation of CO monitoring is occurring at increasing number of monitoring stations. The attainment demonstration documents a continued decrease in CO concentrations over time. As such, current CO concentrations in the project site are less than those during the attainment demonstration. Two decades have passed since the attainment demonstration and CO concentrations continue to decline due to CARB’s regulatory activities related to phase-in of zero emission vehicles. As such, current CO concentrations are less than those during the attainment demonstration. Since all of the above conditions indicate that Alternative 2 would not result in higher CO concentrations than those existing within the region at the time of attainment demonstration and attainment of the ambient air quality standards were demonstrated in 2005, there is no reason to expect higher concentrations at the location under study.

Therefore, in summary, Alternative 2 would result in a less than significant impact related to this threshold and no mitigation is required.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. According to the SCAQMD's CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). Alternative 2 does not propose any of these land uses and would not otherwise produce objectionable long-term operational odors. Alternative 2 consists of improvements made to Lincoln Boulevard and Culver Boulevard.

Short-term construction equipment and activities would generate odors, such as diesel exhaust emissions from construction equipment and paving activities. There may be situations where construction activity odors would have an olfactory presence at nearby park uses, but these odors would not rise to the magnitude of a public nuisance. The odors would be temporary and would dissipate rapidly from the source with an increase in distance. Alternative 2 use is also regulated from nuisance odors or other objectionable emissions by SCAQMD Rule 402. Rule 402 prohibits discharge from any source of air contaminants or other material, which would cause injury, detriment, nuisance, or annoyance to people or the public. As such, all Project-related odors are construction related and short term in nature; no long-term operational odors would result.

Therefore, Alternative 2 would result in a less than significant impact related to this threshold and no mitigation is required.

3.4 Biological Resources

This topic is covered in greater detail within Chapter 2.3, Biological Resources.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) 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?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) 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, U.S. Fish and Wildlife Service, or NOAA Fisheries?

Less Than Significant With Mitigation Incorporated. As discussed in more detail in Chapter 2.3.5, Threatened and Endangered Species, Alternative 2 would result in temporary and permanent impacts related to special status species. Prior to the implementation of mitigation measures, these impacts would be considered significant impacts pursuant to CEQA.

In summary, with implementation of mitigation measures, Alternative 2 may affect but is not likely to adversely affect the following special status species: Crotch bumble bee, Steelhead-Southern California Distinct Population Segment, western spadefoot, green sea turtle, western pond turtle, tricolored blackbird, marbled murrelet, Swainson’s hawk, western snowy plover, western yellow-billed cuckoo, southwestern willow flycatcher, greater sandhill crane, bald eagle, California black rail, Belding’s savannah sparrow, coastal California gnatcatcher, light-footed Ridgway’s rail, bank swallow, California least tern, and least Bell’s vireo.

With implementation of **MM BIO-1** through **MM BIO-4**, **MM BIO-15**, **MM BIO-18**, and **MM BIO-25** through **MM BIO-36**, Alternative 2 would result in a less than significant impact related to this threshold.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant With Mitigation Incorporated. As discussed in more detail within Chapter 2.3.1, Natural Communities, Alternative 2 would result in temporary and permanent impacts to sensitive natural communities including Menzies’s goldenbush scrub, alkali weed playa, California bulrush marsh, pickleweed mat, and arroyo willow thicket. Prior to the implementation of mitigation measures, these impacts would be considered significant impacts pursuant to CEQA.

Additional focused surveys for special status plants are being conducted within the project site in the 2024 survey season. Additional information on the results of these surveys will be provided along with the Final EIR.

Also, as required by **MM BIO-5**, an updated focused plant survey shall be conducted no more than one year prior to the beginning of Project construction to identify any shifts in the locations of sensitive plants and vegetation communities. The locations of special status natural communities that are adjacent to the temporary and permanent impact footprints for Alternative 2 will be delineated as ESAs on the Project's plans.

However, with implementation of **MM BIO-1 through MM BIO-5, MM BIO-8, and MM BIO-9,** Alternative 2 would result in a less than significant impact related to this threshold.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant With Mitigation Incorporated. As discussed in more detail within Chapter 2.3.2, Wetlands and Other Waters, Alternative 2 would result in temporary and permanent impacts to wetlands and other waters. A summary of impacts is provided in Table 3-3. Prior to the implementation of mitigation measures, these impacts would be considered significant impacts pursuant to CEQA.

Table 3-3 – USACE, RWQCB, CDFW, and CCC Jurisdictional Waters That Would Be Impacted by Alternative 2

Jurisdictional Features	Existing Resources (acres)	Permanent Impact/Piers (acres)**	Permanent Impact/Shade (acres)***	Temporary Impact (acres)****	Total Impact (acres)
USACE Waters of the United States					
Wetlands	11.805	0.463	-	0.033	**0.496**
Non-wetland Waters	9.948	0.007	0.731	2.130	**2.868**
Total USACE Waters of the United States	21.753	0.470	0.731	2.163	**3.364**
RWCQB Waters of the State					
Wetlands	11.805	0.463	-	0.033	**0.496**
Non-wetland Waters	9.948	0.007	0.731	2.130	**2.868**
Total RWQCB Waters of the State	21.753	0.470	0.731	2.163	**3.364**
Total CDFW Jurisdictional Resources*	24.434	0.470	0.731	2.583	**3.784**
Total CCC Jurisdictional Resources*	24.734	0.470	0.731	2.583	**3.784**

USACE: U.S. Army Corps of Engineers; RWQCB: Regional Water Quality Control Board; CDFW: California Department of Fish and Wildlife; CCC: California Coastal Commission

* CDFW and CCC Jurisdictional Resources include wetland and non-wetland features.

** By building a three-span structure instead of a four-span structure and not constructing pier walls for the SR-1/Lincoln Boulevard Bridge over Ballona Creek, Alternative 2 would reduce the amount of concrete and structural supports within the active Ballona Creek channel by approximately 701 square feet from 987 square feet in existing conditions to approximately 286 square feet with Alternative 2, which represents a 71 percent reduction.

*** Alternative 2 would result in 31,850 sf (0.7312 acres) of shading within Ballona Creek, which is an increase of 16,170 sf (0.3712 acres) from the 15,680 sf (0.3599 acres) of existing shading from the current bridge.

**** Temporary impact acreage for Ballona Creek includes the permanent impact areas for piers and shading.

Source: Psomas 2024b.

To minimize effects, **MM BIO-10** would be implemented, which requires that temporary impact areas within Fiji Ditch be re-planted with native plant species in consultation with property owners and permitting agencies.

Also, as required by **MM BIO-11**, permits would be obtained by the City from regulatory agencies including USACE, the RWQCB, the CDFW, and the CCC. Through the permitting processes with these agencies, compensatory mitigation would be specified to mitigate for permanent impacts to waters. Compensatory mitigation shall be provided at a minimum 1:1 ratio for permanent impacts to waters under the regulatory authority of the USACE, the RWQCB, the CDFW, and the CCC.

With implementation of **MM BIO-1** through **MM BIO-4**, **MM BIO-10**, and **MM BIO-11**, Alternative 2 would result in a less than significant impact related to this threshold.

d) 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?

Less Than Significant With Mitigation Incorporated. As described in more detail within Chapter 2.3.4, Animal Species, Alternative 2 would result in temporary and permanent effects related to wildlife movement and to native wildlife nursery sites.

Alternative 2 would result in direct effects to wildlife including habitat loss and potential injury and mortality of individuals. Also, Alternative 2 would result in indirect effects to wildlife including noise impacts, increased dust and urban pollutants, and night lighting. Also, Alternative 2 would result in effects to nesting birds and raptors during construction.

Additionally, Alternative 2 would result in less than substantial effects to non-listed species including: Busck's gallmoth, western tidal-flat tiger beetle, sandy beach tiger beetle, and senile tiger beetle, wandering (saltmarsh) skipper, Gertsch's socalchemmis spider, mimic tryonia (California brackish snail), southern California legless lizard, coastal whiptail and coast horned lizard, San Bernardino ringneck snake, two-striped garter snake, south coast garter snake, Cooper's hawk, northern harrier, Clark's marsh wren, white-tailed kite, California horned lark, yellow-breasted chat, least bittern, loggerhead shrike, California black rail, osprey, double-crested cormorant, white-faced ibis, yellow warbler, yellow-headed blackbird, burrowing owl, roosting bats, south coast marsh vole and southern California saltmarsh shrew, and American badger.

Prior to the implementation of mitigation measures, impacts relating to migratory birds, wildlife movement, and migratory sites would be considered significant impacts pursuant to CEQA.

However, with implementation of **MM BIO-1** through **MM BIO-4**, and **MM BIO-15** through **MM BIO-24,** Alternative 2 would result in a less than significant impact related to this threshold.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant With Mitigation Incorporated. A complete review of the consistency of Alternative 2 with applicable plans, programs, and ordinances is provided in Chapter 2.1.2, Consistency with State, Regional, and Local Plans and Programs.

Trees and shrubs protected by the City of Los Angeles Municipal Code (Article 6 Preservation of Protected Trees Sections 46.00 to 46.06) may be present in the BSA, including California Live Oak (*Quercus agrifolia*) and Western Sycamore (*Platanus racemose*). Therefore, as required by **MM BIO-14,** during final design and prior to any Project-related vegetation removal, a certified arborist shall assess all trees and shrubs identified for removal to determine if they would be considered protected based on the City of Los Angeles Municipal Code. If any protected trees or shrubs would need to be removed as part of Alternative 2, then a permit would be required from the City's Board of Public Works, which would ensure that appropriate tree replacement occurs.

With implementation of **MM BIO-14**, Alternative 2 would result in a less than significant impact related to this threshold.

f) 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?

No Impact. The project site, including portions of the project site that are within the BWER, does not contain any areas that are subject to a habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Therefore, Alternative 2 would have no impact related to this threshold and no mitigation is required.

3.5 Cultural Resources

This topic is covered in greater detail within Chapter 2.1.12, Cultural Resources.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

and

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant With Mitigation Incorporated. As described in greater detail within Chapter 2.1.12, Cultural Resources, cultural studies for the Project have included preparation of a Historic Property Survey Report (HPSR), Archaeological Survey Report (ASR), Historical Resources Evaluation Report (HRER), Extended Phase I (XPI), and Post Review Discovery Plan documents. Consultation has occurred with Native American groups, the Native American Heritage Commission, and the State Historic Preservation Office (SHPO).

In the HPSR Caltrans concluded that no historical resources are known to be present within the project site and that undisturbed portions of the APE have a low sensitivity for containing precontract resources associated with resource gathering and processing. As described in more detail in the HPSR, the remnants of a Pacific Electric Railway bridge that are immediately north of the Culver Boulevard overcrossing were determined to not meet historic eligibility criteria.

Out of an abundance of caution and in deference to Native American concerns, the City of Los Angeles, in coordination with Caltrans, will implement an archaeological and Native American monitoring program as outlined in the Project’s Post-Review and Discovery Plan (PRDP) and as required by **MM CUL-1.** , which specifies the archaeological monitoring protocols that shall be implemented during construction. The PRDP is provided as Attachment 6 to the HPSR. The PRDP includes minimum requirements related to: archaeological monitoring procedures; Native American participation in monitoring; environmental sensitivity training; notification procedures; and procedures to be implemented in the case of human remains being encountered. The PRDP also includes procedures and protocols for archaeological field work, laboratory protocols, and procedures for processing of isolates and/or secondary deposits if they are encountered during construction. As required by Section 9 of the PRDP, a final Cultural Resources Monitoring Report would be prepared and circulated to Native American parties that were involved in consultation that has occurred as part of the development of the Draft EIR/EA.

Additionally, if previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey will be needed if the Project limits are extended beyond the current survey limits.

With implementation of the requirements in the PRDP as required in **MM CUL-1**, Alternative 2 would have no substantial adverse effects related to historical or archeological resources.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant With Mitigation Incorporated. Alternative 2 is not expected to disturb human remains. During consultation and other cultural research conducted for the Project, there has been no information provided that there are any known Native American burial sites or cemeteries within the project site. Some of the grading and other ground disturbance activities that would occur during construction of Alternative 2 would exceed fill into areas that have not been previously disturbed in recent history. Therefore, there is potential for Alternative 2 to result in disturbance of unknown human remains.

All projects are required to comply with standard requirements to stop work and call the County Coroner if human remains are encountered. Section 7050.5 of the California Health and Safety Code specifically provides for the disposition of accidentally discovered human remains. Section 7050.5 states that if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the Coroner has determined the appropriate treatment and disposition of the human remains.

Additionally, it is Caltrans' policy to avoid cultural resources whenever possible. Further investigations may be needed if site[s] cannot be avoided by the Project. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the Project changes to include areas not previously surveyed.

MM CUL-1 also contains procedures to be implemented in the case of human remains being encountered. As such, with implementation of **MM CUL-1**, impacts would be less than significant.

3.6 Energy

This topic is covered in greater detail within Chapter 2.2.8, Energy.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. Construction of Alternative 2 would require the use of construction equipment for grading, hauling, and building activities. Construction of Alternative 2 would also involve the use of vehicles of construction workers and vendors traveling to and from the project site and on-road haul trucks for the import of soil for grading and for the export of demolition materials.

Off-road construction equipment use for Alternative 2 was calculated based on the equipment data (vehicle types, hours per day, horsepower, load factor) provided in the Roadway Construction Emissions Model output files included in Appendix Q, Air Quality Appendices. The total horsepower hours for construction equipment used for Alternative 2 was then multiplied by fuel usage rates to obtain the total fuel usage for off-road equipment.

Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the Roadway Construction Emissions Model output files. Total VMT was then calculated for each type of construction-related trip and divided by the fuel consumption factor from CARB's EMission FACtors (EMFAC) model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. As shown in Table 3-4, Alternative 2 would consume a total of approximately 56,197 gallons of gasoline fuel (or

6,755,682,213 BTU) and approximately 215,307 gallons of diesel (or 25,882,977,211 BTU) during construction.

Table 3-4 – Total Energy Use During Construction

Source	Gasoline Gallons	Gasoline BTU	Diesel Fuel Gallons	Diesel Fuel BTU
Off-road construction equipment	20,346	2,445,879,857	181,123	21,773,572,068
Worker commute	35,540	4,272,415,713	94	11,300,142
Vendor trips	292	35,102,571	3	360,642
On-road haul trips	19	2,284,071	34,086	4,097,624,142
Total	**56,197**	**6,755,682,213**	**215,307**	**25,882,977,211**

Sources: Psomas 2024a based on data from CalEEMod, Offroad, and EMFAC.
Note: Totals may not add due to rounding.

Fuel energy consumed during construction would be temporary in nature and would not represent a significant demand on energy resources. Furthermore, there are no unusual characteristics of Alternative 2 that would necessitate the use of construction equipment that would be less energy-efficient than comparable equipment at construction sites in other parts of the State. Energy used in the construction of Alternative 2 would enable the development of roadway infrastructure that reduces traffic congestion which allows for a long-term reduction in VMT in the local area as vehicles would no longer go around the project site to avoid congestion. In addition, Alternative 2 would be developed to serve transit, bicyclists and pedestrians which would also reduce dependence on automobiles and thereby would reduce usage of transportation fuels. Therefore, the proposed construction activities would not result in inefficient, wasteful, or unnecessary fuel consumption.

Energy consumption associated with operation of Alternative 2 would consist of electricity for lighting and transportation fuels. Energy used for lighting for Alternative 2 is not anticipated to change substantially from existing conditions. Transportation related energy consumption of gasoline and diesel fuel was calculated based on the quantity of vehicles, average travel distance, vehicle class, and fuel efficiency of each vehicle class as provided by the EMFAC model. Energy consumption calculations are included in in Appendix Q, Air Quality Appendices.

Changes in transportation fuel consumption as calculated based on the estimated VMT that would occur with Alternative 1 and Alternative 2. As shown in Table 3-5, below, fuel consumption of gasoline and diesel with Alternative 2 would be below the fuel consumption under Alternative 1, the No Project Alternative, due to the reduced VMT that would occur. Because Alternative 2 would reduce VMT and would develop infrastructure which serves transit, bicyclists and pedestrians, energy consumption associated with Alternative 2 would not be considered inefficient, wasteful, or unnecessary.

Table 3-5 – Annual Transportation Energy Usage During Operation

Source	Vehicle Miles Travelled	Gasoline Fuel in Gallons	Gasoline Fuel in BTU	Diesel Fuel in Gallons	Diesel Fuel in BTU
Alternative 1	683,464	553,630	66,554,234,992	38,269	4,600,480,499
Alternative 2	655,807	531,227	63,861,074,349	36,720	4,600,480,499
Percent of Alternative 1 to Alternative 2	***96%***	***96%***	***Not applicable***	***Not applicable***	***Not applicable***

Sources: Psomas 2024a based on data from CalEEMod.

As such, neither construction nor operation of Alternative 2 would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. Impacts would be less than significant related to this threshold and no mitigation is required.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The County’s General Plan and Climate Action Plan contains energy policies applicable to Alternative 2. Project constancy with applicable policies has been analyzed in Chapter 2.1.2, Consistency with Plans and Programs, of this Draft EIR/EA. The analysis determined that Alternative 2would be consistent with all applicable energy policies.

As stated in Chapter 2.2.8, Energy, implementation of Alternative 2 would ultimately reduce energy consumption as Alternative 2 would reduce VMT, ultimately reducing fuel consumption. Additionally, Alternative 2 includes the development of infrastructure which serves transit, bicyclists and pedestrians. Alternative 2’s reduction in energy consumption and multimodal elements are consistent with state and local policies to reduce energy. As such, Alternative 2 would have a less than significant impact related to this threshold and no mitigation is required.

3.7 Geology and Soils

This topic is covered in greater detail within Chapter 2.2.3, Geology/Soils/Seismic/Topography, and Chapter 2.2.4, Paleontology.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a.i.) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

No Impact. The project site is not located within an Alquist-Priolo Earthquake Fault Zone and no evidence of active or potentially active faulting was encountered during Group Delta's site investigation and literature review (Group Delta 2022a, 2022b). Consequently, ground rupture is not considered a significant geologic hazard within the project site. The project site does not contain any known faults; therefore, there is very low potential for surface fault rupture to occur within the project site during the construction or operation period. Also, construction of Alternative 2 would not include any element that would trigger fault rupture, such as the injection of fluids into the subsurface. Therefore, Alternative 2 would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. Alternative 2 would have no impact related to this threshold, and no mitigation is required.

a.ii.) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Less Than Significant Impact. The project site is in a seismically active area of Southern California containing both active faults and potentially active faults. Implementation of Alternative 2 would not include any improvements that would trigger seismic activity. While it is technically feasible that seismic activity could occur during the construction period at a time when workers might be susceptible to injury or death because of strong ground shaking, the likelihood of an earthquake occurring during this short time frame is relatively low. There is evidence that activities such as injection of fluids into the subsurface can trigger seismic activity; however, Alternative 2 proposes no such activities. As a result, there would be negligible risks of ground-shaking during construction of Alternative 2.

Applicable provisions of Title 24, the CGBSC would be implemented as part of Alternative 2. Title 24 ensures that structural improvements are adequately designed to withstand the impacts of earthquake ground shaking and requires project sponsors to complete a soils and foundation investigation, which must be overseen by a geotechnical engineer registered in the State of California. Therefore, compliance with the CGBSC will ensure that this would be less than significant impact. Implementation of the regulatory requirements of the CGBSC, to ensure that all improvements are constructed in compliance with the law, is the responsibility of the Project's engineers and building officials. The geotechnical engineer, as a registered professional with the State of California, is required to comply with the CGBSC and applicable City and County codes, and other relevant requirements, while applying standard engineering practice and the appropriate standard of care for the particular region in California.

During final design as part of the standard Project design process, a site-specific design-level geotechnical field investigation will be conducted for the Project. The investigation be based upon additional soil borings and other geotechnical field analyses. The investigation will provide recommendations to avoid and minimize effects related to seismic ground shaking that are applicable to earthwork, site preparation, and foundation design that were prepared for the Project shall be incorporated in the Project's design and specifications.

Therefore, operation of Alternative 2 would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death due to strong seismic ground shaking. Alternative 2 would result in a less than significant impact related to this threshold, and no mitigation is required.

a.iii.) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Construction of Alternative 2 does not have the potential to trigger seismic activity. Therefore, Alternative 2 would not increase the risk of secondary effects of seismicity such as liquefaction and lateral spreading occurring during the construction period.

The project site contains underlying materials that could be subject to liquefaction and associated ground failures, such as lateral spreading. These seismically induced ground failures could damage the roadway and new bridges that would be built as part of Alternative 2 if not mitigated.

Almost all of the project site is located within a State of California Liquefaction Hazard Zone as mapped by the CGS under the California Seismic Hazard Mapping Act (SHMA). New development within a liquefaction hazard zone must comply with California Geological Survey Guidelines for Evaluating and Mitigating Seismic Hazards (Special Publication 117A). Special Publication 117A provides standards for field investigations, soils testing, seismic modeling and mitigation strategies to overcome risks of liquefaction-relate ground failure.

During final design as part of the standard Project design process, a site-specific design-level geotechnical field investigation will be conducted for the Project. The investigation be based upon additional soil borings and other geotechnical field analyses. The investigation will provide recommendations to avoid and minimize effects related to seismic ground shaking that are applicable to earthwork, site preparation, and foundation design that were prepared for the Project shall be incorporated in the Project's design and specifications.

Therefore, operation of Alternative 2 would not cause substantial adverse effects such the loss, injury, or death involving seismic-related ground failure. Alternative 2 would result in a less than significant impact related to this threshold, and no mitigation is required.

a.iv.) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

No Impact. The project site is relatively flat and there are no landslide susceptibility zones, as defined by CSG, within the project site. The nearest landslide susceptibility zone is approximately 0.35-mile south of the project site just south of Cabora Drive (DOC 2023c). No aspect of the implementation of Alternative 2 would affect these slopes. Therefore, Alternative 2 would not expose people or structures to potential substantial adverse impacts, including the risk of loss, injury, or death involving landslides during the construction period.

Alternative 2 would create new slopes with a maximum 2:1 slope; however, these slopes would not be susceptible to landslides as they would be engineered, compacted, and constructed in accordance with the California Green Building Standards Code (CGBSC).

Therefore, Alternative 2 would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death due to landslides. Alternative 2 would have no impact related to this threshold and no mitigation is required.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant With Mitigation Incorporated. The use of temporary cofferdams during construction of Alternative 2 could result in increased potential for scour and erosion within the channel if they are being utilized during a large storm event, which could pose risk to downstream structures such as the Culver Boulevard bridge over Ballona Creek. Downstream scour and erosion could also result in effects to CDFW's Ballona Wetlands Restoration Project and habitats establishing therein, if CDFW has implemented their restoration project prior to Alternative 2 being implemented. Scour and erosion would result in diminished water quality downstream that would have effects on fish and marine mammals. As required by **MM HYD-1**, during final design, once the sizes and locations of cofferdams are determined, the City shall conduct hydraulic analyses of the proposed cofferdams to determine requirements for flood conveyance, scour avoidance, timing, and sequencing of the use of cofferdams within Ballona Creek. Additionally, Project operation would not result in soil erosion or loss of topsoil. With implementation of **MM HYD-1**, Alternative 2 would have a less than significant impact related to this threshold.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. The project site is relatively flat and there are no landslide susceptibility zones, as defined by CSG, within the project site. The nearest landslide susceptibility zone is approximately 0.35-mile south of the project site just south of Cabora Drive (DOC 2023c). No aspect of the implementation of Alternative 2 would affect these slopes. Alternative 2 would create new slopes with a maximum 2:1 slope; however, these slopes would not be susceptible to landslides as they would be engineered, compacted, and constructed in accordance with the California Green Building Standards Code (CGBSC).

As discussed previously, the project site contains underlying materials that could be subject to liquefaction and associated ground failures, such as lateral spreading. These seismically induced ground failures could damage the roadway and new bridges that would be built as part of Alternative 2 if not mitigated.

Almost all of the project site is located within a State of California Liquefaction Hazard Zone as mapped by the CGS under the California Seismic Hazard Mapping Act (SHMA). New development within a liquefaction hazard zone must comply with California Geological Survey Guidelines for Evaluating and Mitigating Seismic Hazards (Special Publication 117A). Special Publication 117A provides standards for field investigations, soils testing, seismic modeling and mitigation strategies to overcome risks of liquefaction-relate ground failure.

During final design as part of the standard Project design process, a site-specific design-level geotechnical field investigation will be conducted during final design. The investigation be based upon additional soil borings and other geotechnical field analyses. This analysis would provide additional analyses of liquefaction settlement, including the locations and extent of liquefiable layers, and recommendations for foundations would be developed and implemented accordingly.

Therefore, Alternative 2 would result in a less than significant impact related to this threshold, and no mitigation is required.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Soils within the project site may be expansive and are likely to be highly corrosive. If present, over time these expansive and corrosive soils result in observable damage to structures constructed upon and within them, depending on site specific conditions and the materials involved.

During final design as part of the standard Project design process, a site-specific design-level geotechnical field investigation will be conducted during final design. If expansive or corrosive soils are determined to be present, the geotechnical investigation shall provide appropriate recommendations to minimize the effects of expansive and/or corrosive soil on project structures, such as the removal and replacement of such soils and/or concrete encasement of structural foundations.

With standard evaluation of soils during final design and implementation of appropriate best management practices for expansion and corrosion, the Project would result in a less than significant impact related to this threshold and no mitigation is required.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. No septic tanks or alternative wastewater disposal systems are proposed as part of Alternative 2. As such, no impacts would occur related to this threshold, and no mitigation is required.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. Alternative 2 would involve ground disturbance including cuts into slopes adjacent to SR-1/Lincoln Boulevard north of Culver Boulevard and excavations related to new bridge abutments that will occur within sensitive geological units that have yielded scientifically significant paleontological resources in the past. Project excavation activities that would involve disturbance of native soils could result in the disturbance and/or destruction of paleontological resources that may be present in deeper Pleistocene alluvial deposits that underlie the project site, which would be a significant impact.

As required by **MM PALEO-1,** to minimize possible impacts to paleontological resources, a Paleontological Mitigation Plan (PMP) will be prepared to specify the locations at which paleontological monitoring would be required, including all areas where ground disturbance would exceed fill into Quaternary alluvium. Other earthwork proposed for the remainder of the project site that is in engineered fill would not result in impacts to sensitive paleontological resources and thus would not require monitoring or mitigation during construction.

With implementation of **MM PALEO-1**, Alternative 2 would have a less than significant impact related to this threshold.

3.8 Greenhouse Gas Emissions

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

<table>
<tr><td>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</td><td rowspan="2">An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the Project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the Project’s direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the Project. These measures are outlined in the body of this Draft EIR/EA.</td></tr>
<tr><td>b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</td></tr>
</table>

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. GHG emissions attributable to Alternative 2 were quantified for both the construction and operations phases of Alternative 2, as presented in Chapter 2.2.9, Climate Change using the latest approved version of the EMFAC2021 model. Construction phase emissions would comply with Caltrans Specifications 14-9.02. As detailed in Chapter 2.2.9, Climate Change, emissions from operation of Alternative 2 would be less than Alternative 1 due to the reduction in VMT which would result in less vehicular emissions of GHGs. In summary, Alternative 2 would result in operational emissions below both the existing conditions and Alternative 1.

Table 3-6 provides a summary of the GHG emissions for the Baseline, Opening Year No-Build and Build Alternatives and the Design Year No-Build and Build Alternatives. As shown in Table 3-6, GHG emissions would be less under Alternative 2 as compared to Alternative 1 for both the Opening and Design Year. This is primarily due to the reduction in VMT and increase in the average vehicle speed associated with the development of the Project. This reduction in VMT is due to the elimination of the existing southbound traffic bottleneck on the bridge which causes vehicles to use alternate routes that would require travelling a greater distance.

Table 3-6 – Modeled Annual CO2 Emissions and Vehicle Miles Traveled, by Alternative

Alternative	CO2e Emissions (Metric Tons/Year)	Annual Vehicle Miles Traveled[1]
Existing/Baseline Year 2019	74,444	206,073,931
Opening Year (2030)		
No-Build Alternative	68,358	219,488,604
Build Alternative	62,678	215,677,850
Opening Year Difference Between Build and No-Build Alternatives	-5,680	-3,810,754
Design-Year (2050)		
No-Build Alternative	59,260	243,053,027
Build Alternative	56,450	231,527,422
Design Year Difference Between Build and No-Build Alternatives	-2,810	-11,525,605

CO2e = carbon dioxide equivalent
Source: EMFAC2021
1 Annual VMT values derived from Daily VMT values multiplied by 347, per ARB methodology (ARB 2008).

Therefore, Alternative 2 would result in a less than significant impacts related to this threshold and no mitigation is required.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. As discussed in greater detail in Chapter 2.2.9, Climate Change, Alternative 2 would be consistent with emission reduction plans developed by the City of Los Angeles, County of Los Angeles, and SCAG.

Once built, Alternative 2 would involve the construction and operation of various new multimodal transportation improvements that would encourage non-vehicular forms of transportation, which would reduce VMT and associated emissions.

Implementation of Alternative 2 would result in temporary emissions generated during construction, as detailed in Chapter 2.2.6, Air Quality. This temporary usage of energy would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases.

Therefore, Alternative 2 would result in a less than significant impacts related to this threshold and no mitigation is required.

3.9 Hazards and Hazardous Materials

Several of the thresholds covered under this topic are discussed in greater detail within Chapter 2.2.5, Hazardous Waste/Materials.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Construction of Alternative 2 would involve the transportation, use, storage, and disposal of limited quantities of hazardous materials such as paints, solvents, sealers, thinners, adhesives, fuels (e.g., gasoline; diesel), hydraulic fluids, oils, lubricants, grease, and asphalt. The release of hazardous materials could occur during routine transport, disposal, or use, or through reasonably foreseeable upset and accident conditions during equipment and hazardous materials use. These construction materials would be used for a short period of time and are not acutely hazardous. These materials would be properly stored when not in use and would be disposed of according to applicable requirements.

Diesel-powered construction equipment utilized for construction of Alternative 2 would be in good working order. However, equipment could spill oil, fuel, or fluids during normal usage or during refueling or maintenance activities. Adherence to regulations set forth by county, State, and federal agencies regarding storage, handling, and disposal of these materials would reduce the potential for hazardous materials impacts during construction. The potential for the release of hazardous materials during project construction is considered low, and in the event a release was to occur, it would not result in a significant hazard to the public, surrounding land uses, or environment due to the small quantities of materials being used at the site. Furthermore, construction activities would be conducted using Best Management Practices (BMPs) in accordance with a SWPPP. Applicable BMPs would include but are not limited to, vehicle and equipment fueling and maintenance; material delivery, storage, and use; spill prevention and control; and solid and hazardous waste management. The application of BMPs would limit the potential for accidents involving hazardous materials. In the event an accidental release occurs, work will stop, and emergency spill, containment, and cleanup procedures will be implemented.

The transport of hazardous materials is regulated by the DTSC and transporters of hazardous materials would be required to be licensed by DTSC and inspected by the CHP. Delivery vehicles would be required to utilize roadways approved for transportation of hazardous materials and maintain the proper storage containers for hazardous materials.

Also, Alternative 2 would involve the removal of pavement markings that may contain elevated concentrations of lead and chromium. It is anticipated that the debris produced when this older yellow striping is ground from the pavement will likely meet the definition of hazardous waste. Therefore, yellow traffic stripes and pavement marking material shall be tested prior to construction. If lead chromate concentrations exceed regulatory requirements, then standard environmental practices for the routine removal of traffic striping and pavement markings will be implemented as described in **MM HAZ-5**. Traffic stripes and pavement marking materials that needs to be removed as part of Alternative 2 will be performed by the contractor prior to construction. If this testing reveals that the striping to be removed requires special handling, the Contractor will ensure that the best practices for the removal of pavement markings are utilized that are outlined in **MM HAZ-5.**

Alternative 2 would involve demolition of structures that may contain asbestos containing materials and lead based paint, which would require transport and disposal. As required by **MM HAZ-3**, a hazardous materials survey shall be conducted during final design to evaluate any structures that are potentially impacted by asbestos containing materials or lead based paint. Through testing and abatement in accordance with regulatory requirements, no substantial effects would result related to asbestos containing materials and lead based paint.

With implementation of **MM HAZ-3** and **MM HAZ-5**, Alternative 2 would have less than significant impacts related to this threshold.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

<u>**Less Than Significant with Mitigation Incorporated.**</u>

<u>Hazardous Materials Potentially in Soil and Groundwater</u>

Implementation of Alternative 2 could result in a hazard to the public by potentially disturbing existing contaminated soil and groundwater within the project site.

Due to historical uses and releases of hazardous materials associated with the former Bon Marche Cleaners site, a Chevron Station, the Celery Dump site, the Pacific Electric Railway, the deposition of fill material from Marina del Rey, and other recorded sites, it is possible that excavation activities within areas west of SR-1/Lincoln Boulevard within the project site could encounter contaminated groundwater and soils. As required by **MM HAZ-1**, a sampling and analysis plan (SAP) shall be developed and implemented during final design to evaluate soil and groundwater throughout the project site. The results of the soil and groundwater sampling will determine which soils can be reused on site, and appropriate handling, transport, and disposal requirements for other soils. All hazardous material encountered would be managed, transported, and disposed of in accordance with all applicable laws and regulations.

<u>Aerially Deposited Lead (ADL)</u>

There is the potential for ADL to be present in undisturbed areas of soil within the project site originating from historic leaded gasoline emissions. Therefore, as required by **MM HAZ-2,** an

ADL Site Investigation shall be conducted during final design and prior to construction. The ADL Site Investigation report shall classify soil in accordance with hazardous waste criteria and provide recommendations for soil management.

Hazardous Materials in Structures

The project site contains structures that may contain hazardous materials. Asbestos was used in many building materials prior to 1978; however, may have been used into the early 1980s. Asbestos containing materials include fireproofing, acoustic ceiling material, transite pipe, roofing materials, thermal insulation, and other building materials. It is of primary concern when it is friable (that is, material that can be easily crumbled); during demolition, if not properly identified and mitigated, asbestos fibers could become airborne.

Regulatory actions restricted the amount of lead in paints and primers manufactured after January 1, 1978, and limited the uses of paints in areas where consumers would have direct access to painted surfaces in non-industrial facilities. Prior to 1978, lead based paint may have been used in building construction or maintenance.

Demolition of structures that likely contain regulated and/or potentially hazardous materials, including lead based pain and asbestos. The SCAQMD requires asbestos containing materials to be removed prior to demolition. Also, the SCAQMD has identified specific asbestos abatement procedures to remove asbestos material and that require safety features to prevent the release of asbestos.

As required by **MM HAZ-3**, a hazardous materials survey shall be prepared during final design to evaluate any structures that are potentially impacted by asbestos containing materials or lead based paint. This includes SR-1/Lincoln Boulevard Bridge over Ballona Creek, the Culver Boulevard Bridge over SR-1/Lincoln Boulevard, and the remnant abutments from a Pacific Electric Railway bridge that are located immediately north of the Culver Bridge overcrossing. All three of these structures would need to be removed as part of Alternative 2. The survey shall be conducted under the oversight of a California Division of Occupational Safety and Health (Cal/OSHA) Certified Asbestos Consultant (CAC) and California Department of Public Health (CDPH) lead Inspector/Assessor and will serve to confirm the presence or absence of asbestos containing materials and lead based paint through collection of bulk samples and laboratory analysis. During final design, special provisions shall be prepared based on the results of the hazardous materials survey(s) that direct the Contractor on the management of hazardous building materials during construction. Asbestos removal will be conducted in conformance with Rule 1403 of the SCAQMD and with EPA National Emissions Standards for Hazardous Air Pollutants (NESHAPS). Similarly, any lead based paint requiring removal would be handled and disposed of in accordance with all applicable laws and regulations. Therefore, adverse effects are not anticipated related to hazardous materials in structures with implementation of **MM HAZ-3**.

Methane and Hydrogen Sulfide Gas

The project site is located within a Methane Zone designated by the City of Los Angeles Department of Building and Safety. These hazardous gas zones are usually a result of naturally surfacing tar and crude oil, or shallow soil contamination by old oil drilling wells. Additionally, wetlands and landfill sites are known to produce methane soil gas. As a result, the Los Angeles Methane Zone Map categorizes two types of zones; methane buffer zones and methane zones. Each zone is based on the proximity to a methane soil gas source. Most development projects within these zones require a methane mitigation system. Thus, methane soil gas testing is common in these zones. Additionally, a previous archeological record for a surrounding site located at the intersection of SR-1/Lincoln Boulevard and Jefferson Boulevard indicated the presence of methane and hydrogen sulfide gas during an archeological survey (Psomas 2023a).

Therefore, given the risk for methane and hydrogen sulfide gas during construction, as required by **MM HAZ-4,** a site health and safety plan shall be prepared by the contractor and submitted to the City prior to any field work. The plan shall include requirements for monitoring during construction as well as control measures, such as the use of exhaust and ventilation systems to reduce methane and hydrogen sulfide gas levels; use of respiratory and other personal protective equipment; and training and educating workers.

Treated Wood Waste

Treated wood is typically treated with preserving chemicals that protect the wood from insect attack and fungal decay during its use. Treated wood waste (TWW) may be generated by Alternative 2 through the removal of posts along metal beam guard railing, thrie-beam barrier, piles, utility poles, or roadside signs. The DTSC requires that TWW either be disposed of as a hazardous waste, or if not tested, the generator may presume that TWW is a hazardous waste (to avoid the time and expense involved in completing laboratory testing) and manage the waste by Alternative Management Standards (AMS). The AMS are described in the California Code of Regulations, Title 22, Division 4.5, Chapter 34. The AMS lessen storage requirements, extend accumulation periods, allow shipments of presumed hazardous waste TWW without manifests and registered hazardous waste haulers, and permit disposal at specific non-hazardous waste landfills.

Existing Street Lighting

Alternative 2 would result in the generation of hazardous waste through the removal of street lighting and signal and electrical components (i.e., bulbs or LED bulbs, timers, switches, sensors, circuit boards, etc.) during construction. These materials shall be disposed of in accordance with applicable laws and regulations.

Release of Hazardous Materials Through Routine Transport, Use, or Disposal

Construction of Alternative 2 would involve the transportation, use, storage, and disposal of limited quantities of hazardous materials such as paints, solvents, sealers, thinners, adhesives, fuels (e.g., gasoline; diesel), hydraulic fluids, oils, lubricants, grease, and asphalt. The release of hazardous materials could occur during routine transport, disposal, or use, or through reasonably foreseeable upset and accident conditions during equipment and hazardous materials use. These construction materials would be used for a short period of time and are not acutely hazardous. These materials would be properly stored when not in use and would be disposed of according to applicable requirements. Diesel-powered construction equipment utilized for Alternative 2 would to be in good working order. However, equipment could spill oil, fuel, or fluids during normal usage or during refueling or maintenance activities. Adherence to regulations set forth by county, State, and federal agencies regarding storage, handling, and disposal of these materials would reduce the potential for hazardous materials impacts during construction. The potential for the release of hazardous materials during project construction is considered low, and in the event a release was to occur, it would not result in a significant hazard to the public, surrounding land uses, or environment due to the small quantities of materials being used at the site. Furthermore, construction activities would be conducted using Best Management Practices (BMPs) in accordance with a SWPPP. Applicable BMPs would include but are not limited to, vehicle and equipment fueling and maintenance; material delivery, storage, and use; spill prevention and control; and solid and hazardous waste management. The application of BMPs would limit the potential for accidents involving hazardous materials. In the event an accidental release occurs, work will stop, and emergency spill, containment, and cleanup procedures will be implemented.

The transport of hazardous materials is regulated by the DTSC and transporters of hazardous materials would be required to be licensed by DTSC and inspected by the CHP. Delivery vehicles would be required to utilize roadways approved for transportation of hazardous materials and maintain the proper storage containers for hazardous materials.

Also, construction of Alternative 2 would involve the removal of pavement markings that may contain elevated concentrations of lead and chromium. It is anticipated that the debris produced when this older yellow striping is ground from the pavement will likely meet the definition of hazardous waste. Therefore, yellow traffic stripes and pavement marking material shall be tested prior to construction. If lead chromate concentrations exceed regulatory requirements, then standard environmental practices for the routine removal of traffic striping and pavement markings will be implemented as described in **MM HAZ-5**. Traffic stripes and pavement marking materials that needs to be removed as part of Alternative 2 will be performed by the Contractor prior to construction. If this testing reveals that the striping to be removed requires special handling, the Contractor will ensure that the best practices for the removal of pavement markings are utilized that are outlined in **MM HAZ-5.**

Alternative 2 would demolish and dispose of asbestos containing materials and lead based paint. As required by **MM HAZ-3**, a hazardous materials survey shall be conducted during final design to evaluate any structures that are potentially impacted by asbestos containing materials or lead based paint. Through testing and abatement in accordance with regulatory requirements, no substantial effects would result related to asbestos containing materials and lead based paint.

<u>Potential Effects to Existing Pipelines</u>

The project site contains a 10-inch crude oil pipeline, the Ventura 10-inch crude oil pipeline, which is located along SR-1/Lincoln Boulevard as well as a gas transmission pipeline along Jefferson Boulevard (Group Delta 2021a). Given that construction of Alternative 2 would involve ground disturbance in proximity of these lines, there is potential for rupture of these lines unless they are properly identified, marked, and avoided or relocated. During final design, coordination with utility providers would occur in accordance with standard City and Caltrans processes**,** which would minimize potential effects. Additional information on coordination with utility providers and utility relocations is provided in Chapter 2.1.9, Utilities and Service Systems.

<u>Conclusion</u>

With implementation of **MM HAZ-1** through **MM HAZ-5**, Alternative 2 would have less than significant impacts related to this threshold.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

<u>Less Than Significant Impact</u>. Schools, daycare centers, nursing homes, and hospitals are considered sensitive receptors because children, the elderly, and the ill are more susceptible than healthy adults to the impacts of hazardous materials. The only such facility within 0.25 mile of the project site is Playa Vista Elementary School located at 13150 Bluff Creek Dr, Playa Vista, CA 90094. Construction of Alternative 2 would involve the transportation, use, and disposal of limited quantities of hazardous materials such as paints, solvents, adhesives, fuel, lubricants, grease, and asphalt. However, construction of Alternative 2 would not involve the transport or emission of acutely hazardous materials that could result in a danger to any nearby schools. Furthermore, because such activities would comply with relevant federal, State, and local regulations, potential Project impacts to construction workers, the general public, and nearby schools would be minimized. Alternative 2 would have a less than significant impact related to this threshold and no mitigation is required.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant with Mitigation Incorporated. California Government Code Section 65962.5 requires various State agencies to compile lists of hazardous waste disposal facilities, unauthorized releases from underground storage tanks, contaminated drinking water wells and solid waste facilities where there is known migration of hazardous waste. A significant impact of Alternative 2 may occur of the project site is included on any of the above lists and poses an environmental hazard to surrounding sensitive uses. The Celery Dump site located generally north of Culver Boulevard and west of SR-1/Lincoln Boulevard, was part of a statewide evaluation of solid waste disposal facilities and as such would be considered part of Government Code Section 65962.5, also known as the Cortese List. However, as part of the site's prior evaluation, soil and groundwater at this location were tested for chemicals that would have been associated with past activities at the dump site. Samples were collected between 1988 and 1996 that were analyzed for VOCs, SVOCs, metals, PCBs, petroleum hydrocarbons (including fuel oil), and pesticides (including Lindane). The results indicated that no chemicals associated with the Celery Dump site were detected in the samples collected.

Also, the Roisman Avi, Tosco – 76 Station #5071, Unocal Corp SS 5071, Tosco Corporation, Service Station 5071, Marina Unocal located at 4801 Lincoln Boulevard, Marina Del Rey would also be considered a Cortese List property. This parcel contains the Fiji Gateway Park and is owned by the County of Los Angeles. According to available documents reviewed via GeoTracker, a leak was discovered in an underground storage tank (UST) at the facility in January 1986. The leak was discovered during tank closure and was reportedly caused by corrosion. The underlying groundwater was reportedly impacted with volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH). As early as December 1992, on-going remediation efforts have been made to remove free product in the groundwater. The facility was granted closure in April 2013, and a well destruction report was submitted in June 2013. As required by **MM HAZ-1**, during final design the City shall develop and implement a sampling and analysis plan (SAP) to evaluate soil and groundwater throughout the project site.

The results of the soil and groundwater sampling will determine which soils can be reused on site, and the appropriate handling, transport, and disposal requirements for other soils. The SAP will include three shallow borings to 5 feet below ground surface within impacted areas within the former Tosco/Unocal/76 Station #5071 facility that experienced a release of petroleum products. Soil samples shall be collected and analyzed for TPH, VOCs, and metals and handling and disposal requirements for this property would be developed.

Therefore, although a portion of Alternative 2 would occur on a hazardous materials site compiled pursuant to Government Code Section 65962.5, Alternative 2 would not create a significant hazard to the public or the environment since these materials were previously not determined to occur in this area.

As noted above, the Celery Dump site and the Roisman Avi, Tosco – 76 Station #5071, Unocal Corp SS 5071, Tosco Corporation, Service Station 5071, Marina Unocal property would be considered Cortese List properties; however, past testing conducted by others did not identify any chemicals within the soil tested at the Celery Dump site. Prior remediation efforts have occurred at the Rosman Avi, Tosco – 76 Station #5071 site. Nonetheless, as required by **MM HAZ-1**, additional soil and groundwater sampling will occur to confirm current status of these soils and waters. Given that operation of Alternative 2 would not involve any impacts to soils or groundwater within the Celery Dump site, there would be no substantial effects during operations related to this site. With implementation of **MM HAZ-1**, Alternative 2 would have a less than significant impact related to this threshold.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

<u>No Impact.</u> The project site is not located within an airport land use plan. The nearest boundary of an airport land use plan is for Los Angeles International Airport, which ends south of the project site near W. Manchester Avenue (City of Los Angeles 2023a). Given that the project site is not within an airport land use plan, no impacts would occur related to this threshold and no mitigation is required.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

<u>Less Than Significant With Mitigation Incorporated.</u> As described in more detail below in Section 3.20 under threshold (a), Alternative 2 would not substantially conflict with any applicable emergency response or evacuation plans including the Los Angeles County

Operational Area Emergency Response Plan, the City of Los Angeles Emergency Operations Plan, or the City of Los Angeles Hazard Mitigation Plan.

With implementation of **MM TRANS-1**, Alternative 2 would have a less than significant impact related to this threshold.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. See response to threshold (b) below in Section 3.20, Wildfire.

3.10 Hydrology and Water Quality

This topic is covered in detail within Chapter 2.2.1, Hydrology and Floodplain, and Chapter 2.2.2, Water Quality and Storm Water Runoff.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	☐	☒	☐	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☒	☐	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☒	☐	☐
(iv) impede or redirect flood flows?	☐	☒	☐	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☒	☐	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant with Mitigation Incorporated. Alternative 2 would result in short-term effects related to water quality and storm water runoff such as increases in chemicals, debris, loose soil, sediment, and/or spilled fluids such as gasoline, oil, and lubricants. Surface runoff would occur that, if not controlled, could affect water quality in local receiving waters.

Alternative 2 would result in soil disturbance and vegetation removal that would promote erosion during storm and wind events if not controlled. According to the Draft Project Report, the total disturbed surface area for Alternative 2 would be approximately 14.48 acres (Psomas 2023a).

Construction of the new SR-1/Lincoln Boulevard Bridge would involve work activities within Ballona Creek that would disturbed soil and would otherwise potentially introduce water quality contaminants into the waterway. Soil disturbance within Ballona Creek would occur within cofferdams associated with the removal of the existing bridge substructure and the construction of the new bridge substructure. These activities could potentially result in sediment becoming suspended within Ballona Creek, although these effects would be minimized through the use of cofferdams and other measures to be specified in the Storm Water Pollution Prevention Plan (SWPPP).

During construction of the new SR-1/Lincoln Boulevard Bridge over Ballona Creek, there is potential that polluted runoff would not be contained on the bridge and would instead be allowed to freely discharge into Ballona Creek. Any contaminant compounds in the runoff would be immediately discharged into the water in this worst-case scenario. Pollutants could include trash, fuels, oil, brake dust, sediment, etc. Also, equipment that is operated in the construction area might leak petroleum compounds, or fuel could spill when it is being dispensed or during storage that could flow into a waterway via storm water runoff. Runoff could also occur from areas that are dedicated to cleaning equipment, which could result in water quality effects if not controlled including increased phosphates, suspended solids, and dissolved solids.

To avoid and minimize impacts to water quality that could result from general construction activities, **MM WQ-1** would be implemented, which requires that the Contractor develop a SWPPP which will specify appropriate best management practices to be implemented during construction. Project construction would also adhere to the South Coast Air Quality Management District's Rule 402 (Nuisance) and Rule 403 (Fugitive Dust) to avoid and minimize dust from leaving the site. With implementation of **MM WQ-1**, no substantial adverse effects would result from general construction activities.

During the relocation of existing water and oil pipelines on the Ballona Creek Bridge, there is potential for a spill of water or oil to occur within Ballona Creek. This would represent a significant impact related to water quality if it were to occur. A 16” water pipe owned by the LADWP is located along the centerline of SR-1/Lincoln Boulevard, including on the Ballona Creek Bridge, that would need to be relocated. This line is attached to the second interior girder on the west side of the existing bridge. Also, there is a 10-inch crude oil pipeline that is on the east side of SR-1/Lincoln Boulevard within the project site, which is owned by Shell that would also need to be relocated as part of Alternative 2. In the event of an oil pipeline spill, the contractor would be required to immediately stop work, contain the spill, and then contact 9-1-1, the California Office of Emergency Services, CalGEM, and the CDFW’s Office of Spill Prevention and Response (OSPR).

Due to the shallow depth of the groundwater table within the project site, construction of Alternative 2 could potentially affect groundwater quality. Construction activities within/below the groundwater table could disturb sediments and increase turbidity within groundwater. Incidental spills within the project site of oils, fuels, lubricants, etc. could also affect groundwater if it were to be allowed to absorb into the soil and to percolate into the shallow groundwater table within the project site. However, with implementation of **MM WQ-1** requiring development and implementation of a SWPPP and **MM WQ-3** requiring implementation of dewatering best practices, potential effects to groundwater quality would be minimized.

The wider roadway that would result from Alternative 2 would have potential to contribute polluted storm water into Ballona Creek beyond existing conditions.

Typical water quality contamination on roadways often includes incidental drippings from vehicles, accidental spills that introduce contaminant materials, and accidental releases from bridge maintenance activities. Also, surface runoff would be affected by particulates from pavement wear, metals such as zinc, lead, iron, copper, cadmium, chromium, nickel, and manganese from vehicles brakes, diesel fuel, tire wear, auto body rusting, metal plating, break lining wear, grease and lubricating oils, trash discarded from vehicles, and pathogenic bacteria from soil, litter, bird droppings, etc.

As required by **MM WQ-5,** storm water generated from the widened roadway would be treated for anticipated roadway contaminants prior to the water discharging into Ballona Creek, Fiji Ditch, or other downstream receiving water bodies. Treatment methods could include practices such as biofiltration swales, detention basins, gross solids removal devices, and/or media filters (e.g., filtration systems where the first chamber settles out the larger solids and the second chamber traps hydrocarbons and metals as they pass through the filter). Additionally, **MM WQ-5** requires that storm water generated on the bridge deck of the SR-1/Lincoln Boulevard Bridge over Ballona Creek be piped off the bridge and treated on either side of the bridge before it is allowed to outlet to Ballona creek or other downstream receiving waterbody.

Portions of the project site could potentially be flooded during a variety of scenarios related to storm events and sea level rise that are described in more detail in Chapter 2.2.1, Hydrology and Floodplain. In the event of a flood within the project site, vehicles within the project site could be flooded, which could lead to water quality pollution with gasoline, metals, and other contaminants that would result from the widened roadway. However, in most flood events local roadways would be closed prior to flooding actually occurring; therefore, it is unlikely that cars would be on SR-1/Lincoln Boulevard or Culver Boulevard when it is subject to flooding.

Alternative 2 would not result in any substantial permanent effects to the quality of the groundwater within or near the project site. No aspects of Alternative 2 would increase the transport of pollutants into the groundwater table through infiltration. Alternative 2 would result in 10.17 acres of additional impervious surface within the project site, which would reduce groundwater infiltration. However, groundwater infiltration in the project site is limited in existing conditions due to the high groundwater table, which limits current percolation that occurs within the project site. Therefore, the increased impervious surface is not anticipated to result in a substantial decrease in groundwater infiltration that would thereby result in impaired groundwater quality.

During final design, final specifications would be developed to ensure that there are no exceedances of water quality standards or waste discharge requirements that would result from Alternative 2. This would include development of a SWPPP for construction as well as operational water quality BMPs.

Therefore, Alternative 2 would not substantially degrade surface or ground water quality. With implementation of **MM WQ-1, WQ-3**, and **WQ-5**, Alternative 2 would have a less than significant impact related to this threshold.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant with Mitigation Incorporated. Alternative 2 would not require the direct extraction of any groundwater for use as a water supply. Irrigation to planted areas would be terminated approximately two years after planting. Therefore, Alternative 2 would not require substantial amounts of water.

The amount of impervious surfaces would increase from 8.39 acres in existing conditions to 10.65 acres of impervious surfaces with Alternative 2 (Psomas 2023a). This would result in a 2.59-acre (21 percent) increase in runoff from the project site. Therefore, Alternative 2 would result in decreased groundwater infiltration without mitigation.

To minimize effects to groundwater recharge and groundwater supplies, **MM HYD-4** would be implemented requiring that the increased runoff caused by Alternative 2 would be captured and then detained or retained using stormwater best management practices such as swales, underground infiltration chambers, basins, tree wells, or other means. These measures would be specified during final design at the same time that roadway, grading, and drainage plans are being finalized.

With implementation of **MM HYD-4**, Alternative 2 would have a less than significant impact related to this threshold.

(c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

> ***(c)(i) result in substantial erosion or siltation on- or off-site?***
>
> ***(c)(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?***
>
> ***(c)(iii) exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

Less Than Significant With Mitigation Incorporated. Construction of Alternative 2 could result in temporary increases in erosion and scour. For example, erosion could occur during wind and rain events on work areas where vegetation has been cleared. To avoid and minimize impacts to water quality that could result from general construction activities, **MM WQ-1** would be implemented, which requires that the Contractor develop a SWPPP which will specify appropriate best management practices to be implemented during construction.

Also, the use of temporary cofferdams during construction of Alternative 2 could result in increased potential for scour and erosion within the channel if they are being utilized during a large storm event, which could pose risk to downstream structures such as the Culver Boulevard bridge over Ballona Creek. Downstream scour and erosion could also result in effects to CDFW’s Ballona Wetlands Restoration Project and habitats establishing therein, if CDFW has implemented their restoration project prior to Alternative 2 being implemented. Scour and erosion would result in diminished water quality downstream that would have effects on fish and marine mammals. As required by **MM HYD-2**, during final design, once the sizes and locations of cofferdams are determined, the City shall conduct hydraulic analyses of the proposed cofferdams to determine requirements for flood conveyance, scour avoidance, timing, and sequencing of the use of cofferdams within Ballona Creek.

The amount of impervious surfaces would increase from 8.39 acres in existing conditions to 10.65 acres of impervious surfaces with Alternative 2 (Psomas 2023a). This would result in a 2.59-acre (21 percent) increase in runoff from the project site; however, **MM HYD-4** would be implemented requiring that the increased runoff caused by Alternative 2 would be captured and then detained or retained using stormwater best management practices such as swales, underground infiltration chambers, basins, tree wells, or other means. These measures would be specified during final design at the same time that roadway, grading, and drainage plans are being finalized.

With implementation of **MM HYD-2** and **MM HYD-4** Alternative 2 would have less than significant impacts related to these thresholds.

(c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

> ***(c)(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?***

Less Than Significant with Mitigation Incorporated. Within Ballona Creek, Alternative 2 would result in the same Ballona Creek channel cross-section as occurs in existing conditions. The only exception is that there would only be two piers supporting the new bridge instead of the three piers configuration that supports the existing bridge. This would result in less potential for the bridge structure to impede or redirect storm flows from flowing west to the Pacific Ocean.

Alternative 2 would result in increased impervious surface and stormwater generation; however, as noted above, this additional stormwater would be captured and detained or retained, which would avoid increased stormwater flows emanating from the project site. With implementation of **MM HYD-4**, Alternative 2 would have a less than significant impact related to this threshold.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less Than Significant with Mitigation Incorporated. According to the information contained in the American Society of Civil Engineers (ASCE) Tsunami Hazard Tool online mapper, the project site contains areas within the "tsunami design zone" which are those areas determined by ASCE to be within the extent of tsunami impacts (ASCE 2023a). Areas north of the Culver Boulevard Bridge would be inundated by the tsunami event modeled in the ASCE mapper. At the center point of SR-1/Lincoln Boulevard just north of the Culver Boulevard Bridge, the data shown in the mapper indicate an 6.82-foot (MHW) inundation depth (or 11.32 feet NAVD88) (ASCE 2023a). On the east side of SR-1/Lincoln Boulevard between Fiji Way and Culver Boulevard Bridge, tsunami runup depths could range 9.58 feet (MHW) and and 14.04 feet NAVD88. The data indicate that a tsunami may not be contained by the current northern levee of Ballona Creek which could result in inundation of SR-1/Lincoln Boulevard south of Culver Loop and the Ballona Creek Bike Path at this location during the modeled tsunami event. Inundation depths are shown at this location to range up to about 5.09 feet MHW and 9.58 feet NAVD88. Furthermore, the ASCE data predict that in their modeled tsunami event, nearly all of Marina Del Rey would be inundated, as would coastal roadways include SR-1/Lincoln Boulevard from Culver Boulevard Bridge north to the SR-90/Marina Expressway.

The project site is located about 3 km (~1.86-miles) northeast of a breakwater in the Pacific Ocean, and the Ballona Creek bottom is only a few feet above mean sea level. The existence of the breakwater, offshore barrier islands, and the configuration of the continental shelf in southern California have historically provided relief from the effects of such tsunamis to the project site and vicinity. The ten largest tsunamis that occurred within the Pacific Ocean over the last century did not significantly effect the project site. Also, there is a 7-foot elevation increase in the channel's average elevation as measured from the location of the breakwater to the current location where SR-1/Lincoln Boulevard Bridge crosses over Ballona Creek. This elevation differential would further dissipate energy from open ocean waves that may diffract, refract, or reflect through the levee mouth and propagate upstream into Ballona Creek (Group Delta 2022a, MBI 2023). In conclusion, although there is always the risk of tsunami events occurring throughout coastal California at any time, the project site is physically sheltered from such effects. Therefore, Alternative 2 would not result in any substantial adverse effects related to flooding from a tsunami.

To ensure adequate vertical clearance for the replacement SR-1/Lincoln Boulevard Bridge over Ballona Creek, and as required by **MM HYD-1**, during final design the City will prepare and submit design-level hydraulic and sea level rise analyses for the proposed replacement bridge over Ballona Creek to Caltrans, as well as to the Los Angeles County Flood Control District and Army Corps of Engineers as part of the 408 permitting process, and the California Coastal Commission during the Coastal Development Permit application process. At a minimum, the hydraulic analyses conducted during final design shall contain and/or utilize: the latest project design, the latest applicable State and Federal sea level rise guidance.

Flooding could also result from a seiche event. A seiche may occur in a semi- or fully-enclosed body of water. Seiches are typically caused when strong winds and/or rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the weather stops or moves on, the water rebounds to the other side of the enclosed area.

Seiche events could technically occur within Ballona Creek, which is a semi-enclosed water body due to oscillations created by earthquakes as well as from strong storms and wind events. Due to the low typical elevation of water within Ballona Creek it is unlikely that such an event would cause damage to the SR-1/Lincoln Boulevard Bridge or other aspects of the project site.

There are historic records of seiche events having occurred in the past within Santa Monica Bay. One such example occurred in August 1931. Although the height of the waves was not recorded, there are descriptions of “enormous waves” rolling onto the coast from Malibu to Laguna Beach. Local scientists ascribed the oscillations to seiches in the basin formed with the Channel Islands. The waves were triggered by remote storms and aggravated by the high tides. There was minimal property damage from this event, and there were recorded lifeguard rescues that needed to occur to rescue individuals that got swept into the ocean by the event (NOAA 2023c).

Also, seiches were recorded at Santa Monica following earthquakes that occurred under Santa Monica Bay in 1930, 1979, and 1989. The maximum height of these long period waves was about two feet (City of Malibu 2023a). Therefore, there is potential for a seiche to occur; however, most of the year there is plenty of adequate clearance between the water surface elevation and the bottom of the proposed bridge that no substantial adverse effects would result.

With implementation of **MM HYD-1**, Alternative 2 would have a less than significant impact related to this threshold.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

<u>**Less Than Significant Impact.**</u>

Alternative 2 has the potential to impair water quality during construction as well as ongoing during operation of the roadway.

Section 303 of the Clean Water Act establishes the quality standards and TMDL programs. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards and an allocation of that amount to the pollutant’s sources. Water quality standards are set by the California State Water Board, which identifies the uses for each waterbody and the scientific data to support that use. A TMDL is the sum of allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure the waterbody can be used for the purposes the State has designated. The calculation must also account for seasonal variation in water quality.

The Basin Plan for the Los Angeles Region specifies water quality objectives for all surface waters within the Los Angeles region based on the beneficial uses of that water body (LARWQCB 1994). The Basin Plan lists current beneficial uses for the key surface water features in the Project area, as shown in Table 2.2.2-1. Through implementation of a SWPPP and other measures as required by **MMs WQ-1** through **WQ-4,** as well as operational stormwater treatment BMPs as required by **MM WQ-5**, Alternative 2 would be consistent with the LARWQCB Basin Plan.

The project site is located on the Santa Monica Groundwater Subbasin, also identified as Groundwater Basin 4-011.01. Alternative 2 would not directly conflict with any policies contained within the Groundwater Sustainability Plan for the Santa Monica Groundwater Subbasin (Santa Monica Basin GSA 2022). This plan contains Sustainable Management Criteria and five Management Actions, none of which directly relate to Alternative 2. By increasing the amount of impervious surface within the project site, Alternative 2 would not support the overall goal of the plan to increase recharge of local groundwater aquifers.

Therefore, with implementation of **MMs WQ 1** through **WQ-5** Alternative 2 would have a less than significant impact related to this threshold.

3.11 Land Use and Planning

This topic is covered in greater detail within Chapter 2.1.2, Consistency State, Regional, and Local Plans and Programs.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☒	☐	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐	☐

a) Would the project physically divide an established community?

Less Than Significant With Mitigation Incorporated. Once built, Alternative 2 would result in improved bicycle and pedestrian connectivity amongst existing communities.

Construction of Alternative 2 would interfere with existing pedestrian and bicycle mobility. Construction would require temporary removal or blockage of the limited existing sidewalks that occur within the project site. This includes the sidewalk on the east side of SR-1/Lincoln Boulevard south of the Ballona Creek bridge. Also, pedestrians may be required to use temporary walkways/crossings that would alter the user experience.

The Ballona Creek Bike Path is addressed in more detail in Chapter 2.1.4, Parks and Recreational Facilities. In summary, Alternative 2 would require the temporary detour of the Ballona Creek Bike Path to a signalized crossing of SR-1/Lincoln Boulevard that would be located at Culver Boulevard, which is also detailed in **MM REC-2**. As specified in **MM REC-3**, affected portions of the Ballona Creek Bike Path would be rebuilt, realigned, and reprofiled to accommodate the new Ballona Creek Bridge, which would be a taller and wider structure with an alignment that is shifted to the east when compared to existing conditions. After construction of Alternative 2 is completed, the temporary detour would be removed and the new alignment beneath SR-1/Lincoln Boulevard Bridge would be opened for use.

Alternative 2 would result in temporary closure of Culver Boulevard from Jefferson Way to the Culver Loop. The detour of Culver Boulevard would be required during the first phase of construction to allow for the demolition and reconstruction of the Culver Boulevard bridge over SR-1/Lincoln Boulevard. During implementation of this detour, traffic that normally travels along Culver Boulevard would instead be routed to alternative corridors including: Centinela Avenue, SR-90/Marina Expressway, Jefferson Boulevard, and Short Avenue/Mindanao Way. This would result in a temporary increase in vehicular congestion along these alternate routes.

Alternative 2 would maintain vehicular connectivity along SR-1/Lincoln Boulevard throughout construction. Construction would be staged to first construct half of the new SR-1/Lincoln Boulevard Bridge while traffic is maintained on the existing bridge. Traffic would then be shifted to the new half of the bridge that would be located to the east (upstream) of the existing bridge. Thereafter, the existing bridge would be demolished, and the second half of the bridge would then be constructed on the west side. This approach would maintain at least two lanes of vehicular traffic along SR-1/Lincoln Boulevard during construction, except during limited periods of time during off-peak hours where one lane in each direction may be implemented. This would result in a temporary decrease in roadway capacity and a proportional increase in vehicular congestion.

MM TRANS-1 would be implemented as part of Alternative 2, requiring that the contractor implement a coordinated Transportation Management Plan (TMP) for the Project to minimize effects to local vehicular traffic, pedestrians, and bicyclists. A minimum of two lanes would be maintained in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted as specified in the TMP described in **MM TRANS-1**.

With implementation of **MM TRANS-1**, Alternative 2 would result in a less than significant impact related to this threshold.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant With Mitigation Incorporated. Alternative 2 proposes the expansion and transformation of an existing transportation facility primarily within existing State and City right-of-way.

Chapter 2.1.2, Consistency with Plans and Programs, of this Draft EIR/EA contains an analysis of the consistency of Alternative 2 with applicable state, regional, and local land use plans, policies, and programs.

Alternative 2 would be inconsistent or partially consistent with aspects of some of these existing plans and policies that relate to aesthetics, biological resources, noise, and utilities, as described in Table 2.1.2-1 within Chapter 2.1.2 of this Draft EIR/EA. These plans and policies have been partially established for the purpose of avoiding and minimizing environmental effects of projects.

As described in more detail within Section 3.1, Aesthetics, Alternative 2 would result in less than significant impacts relating to aesthetic resource thresholds with mitigation incorporated. Therefore, although Alternative 2 would conflict with certain policies relating to aesthetics, these conflicts would not result in any significant impacts.

As described in more detail within Section 3.4, Biological Resources, Alternative 2 would result in less than significant impacts relating to biological resource thresholds with mitigation incorporated. Therefore, although Alternative 2 would conflict with certain policies relating to biological resources, these conflicts would not result in any significant impacts.

As described in more detail within Section 3.13, Noise, Alternative 2 would result in less than significant impacts relating to noise thresholds with mitigation incorporated. Therefore, although Alternative 2 would conflict with certain policies relating to noise, these conflicts would not result in any significant impacts.

As described in more detail within Section 3.19, Utilities and Service Systems, Alternative 2 would result in less than significant impacts relating to utility and service system-related thresholds. Therefore, although Alternative 2 would conflict with certain policies relating to utilities, these conflicts would not result in any significant impacts.

Therefore, Alternative 2 would result in less than significant impact related to this threshold with incorporation of the mitigation measures that are provided in Section 3.1, Aesthetics, Section 3.4, Biological Resources, Section 3.13, Noise, and Section 3.19, Utilities and Service Systems, of this Draft EIR/EA.

3.12 Mineral Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

and

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Less Than Significant Impact. Alternative 2 would not result in the loss of availability of any known mineral resource that would be of value to the region and the residents of the state.

The Westchester-Playa Del Rey Community Plan and the Los Angeles County General Plan Conservation and Natural Resources Element do not identify any locally important mineral resource recovery site within or near the project site (City of Los Angeles 2004, Los Angeles County 2015). The project site is not located within an area of significant mineral deposits as classified by the State Mining and Geology Board (Los Angeles County, 2012), nor are there active mines within or near the project site (USGS, 2003; Los Angeles County, 2014b, Table 5.11-4)

A review of the California Department of Conservation's California Geological Survey Information Warehouse for Mineral Land Classification identified the project site within Surface Mining and Reclamation Act (SMARA) Study Area 254. Special Report 254, Update of the Mineral Land Classification for Portland Cement Concrete Aggregate Resources in the San Fernando Valley and Saugus-Newhall Production Consumption Regions, identifies the project site as an MRZ-1, or an area where available geologic information indicates that little likelihood exists for the presence of significant Portland cement concrete aggregate resources (DOC 2021). Therefore, Alternative 2 would not result in the loss of a cement concrete aggregate source.

Oil and natural gas exploration and production began in the 1930's in the vicinity of the project site. In 1934, Ballona Creek was channelized within the project site. Between the 1930s and 1950s, oil derricks were built near the project site. Oil production generally ceased in the 1940s near the project site, and the area has been used mostly for natural gas storage since then. The areas west of SR-1/Lincoln Boulevard within the project site compose the eastern part of SoCalGas Company's Playa del Rey Storage Field. The field produced oil for about 10 years during the 1930s. In 1942, a depleted portion of the oil field was turned into an underground natural gas storage facility and has been operated as such ever since. The natural gas is stored in the sandstone geologic formations approximately 6,100 feet below ground level and is covered by 1,500 feet of impermeable shale that provides a seal on the porous storage area below. SoCalGas monitors and operates the gas field and oversees a system of monitoring wells and pipelines within the Ballona Reserve. As part of the ongoing safety and maintenance efforts, SoCalGas performs routine patrols and have set up a soil gas monitoring program performed by a California Public Utilities Commission third party consultant (CDFW 2017a, Group Delta 2021a). Given the depth of the geologic formations which contain natural gas, Alternative 2 is not anticipated to result in the release of substantial amounts of natural gas or to alter the storage capacity of the formation. As part of the ISA, the CalGEM website was reviewed to more specifically identify oil and gas wells within 0.5-mile of the project site. The project site is located within the vicinity of oil and gas fields, and multiple wells are located within 1,500 feet of the project site. Well information is provided below. No active oil and gas wells were noted within 1,500 feet of the project site. One idle oil and gas well (API: 03705547) is located approximately 307 feet south of the most northeastern point of the project site, south of Culver Boulevard. Therefore, Alternative 2 would not displace or otherwise affect gas extraction or natural gas storage.

Table 3-7 – California Geologic Energy Management Division (CalGEM) Records Within 0.5-Mile of the Project Site

Well American Petroleum Institute (API) #	Lease Name	Operator	Well Status	Well Number	Well Type
037015373	Eastern	Eastern Oil Co.	Plugged	1	Oil and Gas
03713967	Hughes	Edwin W. Pauley & D. Frankel	Plugged	1	Oil and Gas
03713968	Kidson Et. Al.	Edwin W. Pauley & D. Frankel	Plugged	2	Oil and Gas
03713400	Kidson	Donald Frankel	Plugged	1-1	Oil and Gas
03713836	Vulcan	County of Los Angeles	Plugged	1	Oil and Gas
03705546	Del Rey	A.L. Kitselman	Plugged	1	Oil and Gas
03705547	Del Rey	A.L. Kitselman	Idle	2	Oil and Gas

Source: Group Delta 2021a.

Alternative 2 would require the relocation or abandonment of existing pipelines that convey or have conveyed mineral resources including: a 10-inch crude oil pipeline that is on the east side of SR-1/Lincoln Boulevard; an abandoned 8” oil line along the west side of SR-1/Lincoln Boulevard; a 6” oil line that runs along the northern edge of Fiji Ditch.

The 30” SoCalGas high pressure natural gas line that is located within Jefferson Boulevard along the southern edge of the project site would be protected in place during construction. Also, the various 2” and 3” SoCalGas distribution lines that are located within Fiji Way on the north side of the project site would also be protected in place. Therefore, Alternative 2 would not displace or otherwise affect natural gas or oil conveyance.

During final design, utility relocation plans will be developed in consultation with the utility providers. As part of standard construction practices and requirements, Underground Service Alert (USA) would be notified of the Project prior to construction. USA would inform utility owners of the construction so that they can mark the location of utility lines prior to the beginning of ground disturbing activities. As such, impacts would be less than significant, and no mitigation is required.

3.13 Noise

This topic is covered in greater detail within Chapter 2.2.7, Noise and Vibration.

Would the project result in:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant With Mitigation Incorporated. During construction of Alternative 2, noise from construction activities would intermittently dominate the noise environment in the project site and immediate surroundings. SR-1/Lincoln Boulevard Bridge piles would be cast-in-steel shell over Ballona Creek and for the replacement Culver Boulevard Bridge it would be cast-in-drill holes. As such, no impact pile driving would be required. Construction equipment is expected to generate noise levels ranging from 68 to 82 dB at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance. The magnitude of noise from construction equipment vary based on how many pieces of equipment are working concurrently proximate to the a specific noise sensitive receptor.

Construction activities would adhere to all applicable City and Caltrans specifications. Different pieces of equipment would be operating at various utilization rates. Since construction actvities for Alternative 2 involves the development of a bridge and a linear roadway, construction activities would occur in a linear manner and would not result in continuous noise exposure at the same noise sensitive receptor. As such, construction equipment would be located throughout the construction area and not every piece of equipment would be operating within 15-20 feet of buildings.

To minimize the construction-generated noise, abatement measures in standard Specification 14-8.02, "Noise Control" and SSP 14-8.02 must be followed. This requirement shall not relieve the Contractor from responsibility for complying with local ordinances regulating noise levels.

- Do not exceed 86 dBA at 50 feet from the job site activities from 9 PM–6 AM.
- Equip an internal combustion engine with the manufacturer recommended muffler.
- Do not operate an internal combustion engine on the job site without the appropriate muffler.

Also, construction would be conducted in accordance with the following requirements:

- Standard Specification 14-8.02: Control and monitor noise resulting from work activities. Do not exceed 86 dBA L_{max} at 50 feet from the job site from 9:00 p.m. to 6:00 a.m;
- State Safety Program 14-8.02: The contractor shall comply with all local sound control and noise level rules, regulations and ordinances that apply to any work performed pursuant to contract;
- Los Angeles County: Section 12.08.440 - The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule:

    2. At Residential Structures.

        a. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

-	Single-family Residential	Multi-family Residential	Semi Residential/Commercial
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	75 dBA	80 dBA	85 dBA
Daily, 8:00 PM to 7:00 AM and all-day Sundays and legal holidays	60 dBA	64 dBA	70 dBA

b. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

-	Single-family Residential	Multi-family Residential	Semi Residential/Commercial
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	60 dBA	65 dBA	70 dBA
Daily, 8:00 PM to 7:00 AM and all-day Sundays and legal holidays	50 dBA	55 dBA	60 dBA

- City of Los Angeles: Section 112.05 - Between the hours of 7:00 a.m. and 10:00 p.m., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:

    (d) 75dB(A) for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;

    (e) 75dB(A) for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;

(f) 65dB(A) for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors.

Construction noise would be short-term, intermittent, and would cease after construction activities are completed. In addition, average construction noise levels are not anticipated to exceed 82 dBA at 50 feet for individual equipment. In addition, construction equipment would be located throughout the project site and would not be concentrated adjacent to sensitive receptors for the duration of construction. Nevertheless, construction equipment required for Alternative 2 would result in higher levels of noise when multiple pieces of equipment operate together proximate to noise sensitive uses and would potentially result in significant adverse impacts. As a result, **MM NOI-1** would be implemented, which requires that noise produced from construction equipment shall be operated consistent with Caltrans Specification 14 8.02, “Noise Control” which establishes nighttime construction noise limits and SSP 14-8.02, which requires noise from construction activities to follow the limits established by the City and County of Los Angeles. With implementation of **MM NOI-1,** construction noise would be below these limits by implementing noise attenuation measures which can include, but not limited to, including engine enclosures/mufflers, allocating the noisiest activities to the least noise sensitive portions of the day, substitution to quieter equipment, use of portable noise barriers, siting stationary equipment and staging areas away from nearby noise sensitive uses, as well as other noise reduction measures. Compliance with the noise limits will be confirmed through onsite noise monitoring.

<u>Construction Noise Effects at the Ballona Wetlands Ecological Reserve</u>

Portions of the BWER that are adjacent to SR-1/Lincoln Boulevard have existing sound levels between 67 and 68 dBA, while sound levels drop down to 58 to 62 dBA range as you get approximately 200 feet from the existing roadway (Caltrans 2021a). Masking of communication signals and other biologically relevant sounds for birds are believed to be affected by continuous noise levels of 60 dBA or greater but can be lower or higher depending on the bird species (Caltrans 2016a). Based on Caltrans standards, 67 dBA is the appropriate noise abatement criteria level for the BWER. Therefore, there is already traffic noise which effects the function of wildlife within the BWER and which exceeds the applicable noise abatement criteria.

During construction, Alternative 2 would result in temporary construction noise ranging from 70 to 86 dBA at a distance of 50 feet, depending on the work activity. This would represent up to a 19 dBA increase from existing ambient conditions temporarily during construction.

Mitigation measures would be implemented to minimize potential effects to wildlife temporarily during construction, including biological monitoring and preconstruction nesting bird surveys. Biological effects from construction noise would be minimized through biological monitoring and scheduling work outside of the avian breeding season as described in more detail in Chapter 2.2.13, Animal Species.

Traffic Noise

Traffic noise modeling was conducted for Alternative 2 in the design year (2050), which determined that noise levels would range from 44 to 72 dBA L_{eq}, which is an increase of approximately 3 dBA over design year Alternative 1 noise levels for all of the noise receptors that were modeled. Noise levels would exceed their respective Noise Abatement Criteria (NAC) Activity Category standard for Alternative 1 and Alternative 2. Future noise levels with Alternative 1 and Alternative 2 for the design year are provided in Table 3-8 below and in Appendix B of the Project’s NSR.

Based on the studies completed to date, it is the intent of the City and Caltrans to implement noise abatement as part of Alternative 2 in the form of a noise barrier (e.g., sound wall) along the east side of SR-1/Lincoln Boulevard south of Ballona Creek along the eastern edge of the right-of-way line. If built, the wall would be approximately 350 feet in length and would be approximately 16 feet in height and would benefit 20 residences. This noise barrier is depicted in Figure 2.2.7-3.

Balconies of the multi-family residential units are the frequent outdoor human use areas located along SR-1/Lincoln Boulevard near Ballona Creek represented by Receivers R1-g, R1-u, R2-g, R2-u, R3-g and R3-u. No existing wall currently shields these receivers from noise generated from SR-1/Lincoln Boulevard and existing noise levels at some of the outdoor frequent human use areas at this location currently exceed the NAC and would continue to exceed under Alternative 1. Alternative 2 would slightly increase noise levels compared to Alternative 1 conditions and would continue to exceed the NAC; therefore, a noise abatement evaluation was prepared.

Barrier NB-1 was evaluated along the right of way (ROW) line of SR-1/Lincoln Boulevard. This is the closest location to Project noise generators for barrier placement. Barrier NB-1 was found to be effective in achieving a minimum 5-dB reduction at a wall height of 10 feet for Receiver R1-g. The Caltrans design goal of 7-dB was achieved at a height of 16 feet for Receiver R1-g. Receivers R1-u and R2-u meet the Caltrans minimum 5-dB reduction at a wall height of 14 feet. Only Receiver R1-u was able to achieve the Caltrans design goal of 7-dB at a height of 16 feet. Table 3-9 summarizes the calculated noise reductions and reasonable allowances for each noise barrier height.

Table 3-8 – Summary of Reasonableness Determination Data - Barrier NB-1

Barrier ID: **NB-1**						
Predicted Noise Level without Noise Barrier						
Receiver: R-1						
Design Year Noise Level dBA L_{eq}(h): 70						
Design Year Noise Level Minus Existing Noise Level:						
Barrier Heights	**6-feet**	**8-feet**	**10-feet**	**12-feet**	**14-feet**	**16-feet**
Barrier Noise Reduction, dB			5	6	6	7
Number of Benefited Residences			10	20	20	20
Reasonable Allowance Per Benefitted Residence			$107,000	$107,000	$107,000	$107,000
Total Reasonable Allowance			$1,070,000	$2,140,000	$2,140,000	$2,140,000

Note: Shaded Areas-Noise Barrier does not provide a 5-dB noise reduction
Source: Entech 2023a.

If during final design, conditions have substantially changed, noise abatement may not be necessary. The final decision on the noise barrier will be made upon completion of the Project design and the public involvement process. There is a potential that the property owner and residents of the multi-family units would vote against a noise barrier to preserve views of the BWER and Ballona Creek. Since a final decision on the noise barrier has not yet been made, this impact analysis for operational noise effects assumes that the wall would not be built given that this would result in the greatest operational noise effects. If this noise barrier were not built as part of Alternative 2, noise levels would be approximately 2 to 7 dB higher for these residential receptors east of SR-1/Lincoln Boulevard that would have been benefitted from the construction of this wall. These benefitted receptors consist of apartments and apartment balconies within the Fountain Park Apartments. Existing and future noise levels for Alternative 1 and Alternative 2 are provided in Table 3-11.

Table 3-9 – Existing and Future Noise Measurements For Alternatives 1 and 2

Receiver ID	Land Use	Existing Noise Level	Design Year Noise Level With Alternative 1	Design Year Noise Level With Alternative 2 And With No New Noise Barrier	Activity Category
R1-g*	MFR	68	68	70	B (67)
R2-g*	MFR	68	68	71	B (67)
R3-g*	MFR	67	68	71	B (67)
R4-g	MFR	62	63	64	B (67)
R5-g	MFR	60	61	62	B (67)
R6-g	MFR	58	59	60	B (67)
R7-g	MFR	57	57	58	B (67)
R8-g	MFR	55	56	57	B (67)
R9	Pool	52	53	53	C (67)
R10	Pool	43	43	44	C (67)
R11	Park	54	54	55	C (67)
R12	Park	58	58	59	C (67)
R13	Pool	46	46	47	C (67)
R14	Pool	46	46	46	C (67)
R1-u*	MFR	70	70	72	B (67)
R2-u*	MFR	70	70	72	B (67)
R3-u*	MFR	70	70	72	B (67)
R4-u	MFR	63	64	65	B (67)
R5-u	MFR	62	62	63	B (67)
R6-u	MFR	59	60	61	B (67)
R7-u	MFR	58	59	59	B (67)
R8-u	MFR	56	57	57	B (67)

Notes:
NAC: Noise Abatement Criteria; MFR: Multiple Family Residence; g: ground floor; u: upper floor.

*Denotes receptors that would be benefitted by noise barrier NB-1, if built. As shown in Appendix B of the Noise Study Report, these receptors would experience an insertion loss of between 2 dB and 7 dB if this noise barrier were built.
Source: Entech 2023a, provided as Appendix R. See Appendix B (Future Noise Levels).

Operational Noise Effects at the BWER

Once built, Alternative 2 would result in projected noise levels within areas of the BWER nearest SR-1/Lincoln Boulevard of between 1 and 3 dBA higher than existing conditions, which are already noisy and in exceedance of the 67 dBA noise abatement criteria level for the BWER. Noise barriers along the BWER were not considered for this Project as they would introduce undesirable visual and biological effects. In accordance with § 774.15 of the CFR, a constructive use would not occur for Alternative 2 since the projected noise levels would exceed the relevant threshold contained in paragraph (f)(2) of § 774.15 (i.e., the NAC) because of high existing noise, but the increase in the projected noise level is 3 dBA or less.

Conclusion

As described above, **MM NOI-1** would be implemented, which requires that noise produced from construction equipment shall be operated consistent with Caltrans Specification 14 8.02, “Noise Control” which establishes nighttime construction noise limits and SSP 14-8.02, which requires noise from construction activities to follow the limits established by the City and County of Los Angeles. With implementation of **MM NOI-1**, noise impacts during construction would be limited to a less than significant level.

In existing conditions, noise levels already exceed the relevant NAC for the existing multifamily residential uses, the BWER, and the Ballona Creek Bike Path that are adjacent to SR-1/Lincoln Boulevard.

According to the Caltrans Traffic Noise Analysis Protocol, a substantial noise increase is considered to occur when the project’s predicted worst-hour design-year noise level exceeds the existing worst-hour noise level by 12 dBA or more (Caltrans 2020a).

Alternative 2 would result in a minor increase in future noise levels of up to 3 dBA when compared to the future conditions without Alternative 2 (i.e., Alternative 1). Similar to existing conditions, future noise levels with Alternative 2 would continue to exceed the relevant NAC for the existing multi-family residential uses, the BWER, and the Ballona Creek Bike Path that are adjacent to SR-1/Lincoln Boulevard.

Noise barriers between SR-1/Lincoln Boulevard and the BWER and between SR-1/Lincoln Boulevard and the Ballona Creek Bike Path was considered but dismissed due to the biological and visual effects that would result from new noise barriers at these locations.

A noise barrier between SR-1/Lincoln Boulevard and the multi-family residential building south of Ballona Creek and east of SR-1/Lincoln Boulevard has also been evaluated. Based on the studies completed to date, it is the intent of the City and Caltrans to implement noise abatement as part of Alternative 2 in the form of a noise barrier along the east side of SR-1/Lincoln Boulevard south of Ballona Creek along the eastern edge of the right-of-way line. If built, the wall would be approximately 350-feet in length and would be approximately 16 feet in height. If during final design conditions have substantially changed, noise abatement may not be necessary. The final decision on the noise barrier will be made upon completion of the Project design and the public involvement process. There is a potential that the property owner and residents of the multi-family units would vote against a noise barrier to preserve views of the BWER and Ballona Creek.

Given that Alternative 2 would result in minimal permanent operational traffic noise increases of 3 dBA which is well below the 12 dBA increase used by Caltrans, Alternative 2 would result in a less than significant operational noise impact and no mitigation is required.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Vibration would be created by construction vehicles used for development of Alternative 2. Potential vibration impacts are assessed based on Caltrans methods and threshold criteria. Table 3-10 provides a summary of typical vibration levels measured during construction activities for various vibration-inducing equipment at a distance of 25 feet.

Table 3-10 – Vibration Levels for Construction Equipment

Equipment	ppv at 25 ft (in/sec)
Vibratory roller	0.210
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

ppv: peak particle velocity; ft: feet; in/sec: inches per second.

Source: Caltrans 2020a.

There is one building at the northern end of the project site near Fiji Way that is approximately 15-20 feet from the edge of construction activities. There are also buildings south of Ballona Creek on the east side of the roadway where work activities would be within 15-20 feet of existing structures.

Most construction activities for Alternative 2 would occur at least 25 feet away from developed buildings. Table 3-11 provides the vibration levels anticipated during construction of Alternative 2 compared to the vibration annoyance criteria.

Table 3-11 – Construction Vibration at the Nearest Buildings

Equipment	**Vibration Levels at Different Distances (ppv) (ppv @ 15 ft)**	**Vibration Levels at Different Distances (ppv) (ppv @ 20 ft)**	**Vibration Levels at Different Distances (ppv) (ppv @ 25 ft)**
Vibratory roller	0.45	0.29	0.21
Caisson Drill	0.19	0.12	0.09
Large bulldozer	0.19	0.12	0.09
Small bulldozer	0.01	0.00	0.00
Jackhammer	0.08	0.05	0.04
Loaded trucks	0.16	0.11	0.08
Annoyance Criteria	**0.9**	**0.9**	**0.9**
Exceeds Annoyance Criteria?	**No**	**No**	**No**
Building Damage Criteria	**0.5**	**0.5**	**0.5**
Exceeds Criteria?	**No**	**No**	**No**

ppv: peak particle velocity; ft: feet.

Note: Calculations can be found in Appendix G).

Source: Caltrans 2020a.

As shown in Table 3-11, vibration levels would not exceed the criteria threshold when construction activities occur under the analyzed distances of 15 feet to 25 feet. Since construction activities would be set back at least 15 feet from structures, no substantial adverse construction effects related to vibration are anticipated.

Vibration generated during the operations phase of Alternative 2 by vehicle traffic would not result in perceptible levels of vibration due to vehicles travelling on air-filled tires which do not impart substantial levels of vibration.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within the vicinity of a private airstrip. Additionally, the project site is not located within an airport land use plan. The nearest boundary of an airport land use plan is for Los Angeles International Airport, which ends south of the project site near W. Manchester Avenue (City of Los Angeles 2023a). Given that the project site is not within an airport land use plan, Alternative 2 would have no impact regarding this threshold and no mitigation is required.

3.14 Population and Housing

Would the project result in:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) <u>Less Than Significant Impact</u>. Alternative 2 would not directly induce growth during construction as no new housing, temporary land uses, or infrastructure would be provided that would potentially lead to temporary population growth. Alternative 2 would result in the generation of temporary construction jobs. These jobs are anticipated to mostly be filled by the existing, mobile regional workforce similar to what occurs for other major transportation projects throughout the region. Therefore, it is not anticipated that construction of Alternative 2 would lead to an influx of new workers moving to the area that do not already live within the region. Alternative 2 would result in short-term indirect effects during construction including the incremental increase of activity at nearby commercial establishments as a result of construction workers patronizing local businesses.

Alternative 2 would not include the development of any new housing nor would it include any new land uses that would increase employment in any sectors once Alternative 2 is constructed. Therefore, direct growth inducement during operation of Alternative 2 is not anticipated. Alternative 2 would not be built along a new alignment nor would Alternative 2 provide new or substantially expanded access. Similarly, Alternative 2 would not remove any major obstacles to development for parcels in the nearby area, such as by providing access to a parcel that currently does not have access to a road. Alternative 2 would improve mobility overall and would facilitate improved connectivity amongst existing communities along an existing roadway. As such, Alternative 2 would facilitate planned growth and would not induce any unplanned growth.

b) <u>No Impact</u>. Acquisitions that are proposed as part of Alternative 2 would not result in the displacement of any housing or businesses, nor would these acquisitions affect any planned developments on any of these parcels. No Impacts would occur related to this threshold and no mitigation is required.

3.15 Public Services

This topic is covered in greater detail within Chapter 2.1.9, Utilities and Service Systems.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Fire protection?	☐	☒	☐	☐
ii) Police protection?	☐	☒	☐	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☐	☒

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities?

Less Than Significant With Mitigation Incorporated.

Fire Protection and Police Protection

Construction of Alternative 2 would not substantially increase demand for police or fire services. There would be a temporary increase in potential for calls for police, fire, and/or emergency medical services (EMS) to address issues that occur on construction sites from time to time, including vandalism, theft, trespassing, and/or medical emergencies. Construction of Alternative 2 would require the temporary closure and detour of Culver Boulevard at SR-1/Lincoln Boulevard. Also, construction of Alternative 2 would require temporary lane closures along SR-1/Lincoln Boulevard. A minimum of two lanes would be maintained in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted as specified in the forthcoming TMP. **MM TRANS-1** would be implemented during construction of Alternative 2, requiring that the contractor will implement a coordinated Transportation Management Plan (TMP) for Alternative 2 to avoid and minimize impacts to local vehicular traffic, pedestrians, and bicyclists. Implementation of **MM TRANS-1** would ensure that police, fire, and EMS are not substantially delayed in responding to calls for service.

Operation of Alternative 2 would not impede the ability of emergency service providers to respond to emergencies. Alternative 2 would result in an additional southbound vehicular travel lane on SR-1/Lincoln Boulevard when compared to existing conditions, which would improve police, fire, and EMS response in the southbound direction.

No Impact.

Schools

Construction of Alternative 2 would not lead to any direct increases in demand for schools. Construction would not lead to any direct population growth that would have the potential to generate students. Alternative 2 would not result in any temporary construction easements within schools, or changes in access to any schools during construction.

Operation of Alternative 2 would not lead to any direct increases in demand for schools since Alternative 2 does not include any land uses that would have the potential to generate students, such as residential land uses. Alternative 2 would not result in any right-of-way acquisitions from schools, or changes in access to any schools. Therefore, Alternative 2 would have no impact related to schools.

Less Than Significant Impact.

Parks

Construction of Alternative 2 would not lead to any direct increases in demand for parks. Construction would not lead to any direct population growth that would have the potential to generate park users. Alternative 2 would result in temporary construction easements within the BWER and Fiji Gateway Park during construction.

Operation of Alternative 2 would not lead to any direct increases in demand for parks, although Alternative 2 would improve access to existing parks and recreational facilities in the vicinity of the project site which could indirectly increase park usage. Alternative 2 does not include any land uses that would have the potential to generate park users, such as residential land uses. Alternative 2 would result in right-of-way acquisitions from the BWER and Fiji Gateway Park;

however, these would be relatively small areas of these parks and would not substantially degrade the function or ongoing viability of these parks.

Therefore, Alternative 2 would have a less than significant impact related to the provision of parks and no mitigation is required.

No Impact.

Other Public Facilities

Construction of Alternative 2 would not lead to any direct increases in demand for other public facilities, such as libraries. Construction would not lead to any direct population growth that would have the potential to generate demand for library services. Alternative 2 would not result in any temporary construction easements from any libraries, or changes in access to other public facilities such as libraries during construction.

Operation of Alternative 2 would not lead to any direct increases in demand for libraries since Alternative 2 does not include any land uses that would have the potential to generate library patrons such as residential uses or land uses that would generate employees. Alternative 2 would not result in any right-of-way acquisitions from libraries, or changes in access to other public facilities such as libraries. Therefore, Alternative 2 would have no impact on other public facilities, such as libraries.

3.16 Recreation

This topic is covered in greater detail within Chapter 2.1.4, Parks and Recreational Facilities.

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. Neither construction nor operation of Alternative 2 would lead to any direct increases in demand for parks or other recreational facilities. Implementation of Alternative 2 would increase access to coastal resources and the BWER, which has the potential to nominally increase demand. However, as Alternative 2 does not include growth inducing land uses such as residential development, impacts associated with increases demand for parks and recreational facilities are expected to be less than significant and no mitigation is required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. Alternative 2 would not include any recreational facilities but would improve access to existing recreational facilities including the Ballona Creek Bike Path and the BWER. The new number of users is unknown but would not be of a sufficient quantity to require additional unplanned parks or recreational areas be built.

Alternative 2 would not require the construction or expansion of any recreational facilities. Alternative 2 would result in a reduction in the size of the BWER by 1.17 acres, which would be compensated for through the eminent domain process assuming a land exchange is not approved. This would reduce the size of the BWER but would not necessarily require any construction or expansion given the large size of the reserve. It is conceivable that CDFW could utilize some of those funds to acquire additional lands to add to the BWER, if available. However, any impacts from such an action would be subject to its own environmental analysis and it would be speculative to attempt to assess such environmental effects in this EIR/EA.

3.17 Transportation

This topic is covered in greater detail within Chapter 2.1.10, Transportation.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant With Mitigation Incorporated. Alternative 2 would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. In contrast, Alternative 2 and the other alternatives have been designed to implement planned improvements along SR-1/Lincoln Boulevard within the project site. Chapter 2.1.2 includes an evaluation of applicable programs, plans, ordinances, and policies. As described in more detail therein, Alternative 2 would be consistent with the City of Los Angeles Mobility Plan 2035, the City of Los Angeles Westside Mobility Plan, and the applicable Federal Transportation Improvement Program (FTIP) and the Regional Transportation Plan/Sustainable Communities Strategy with incorporation of mitigation. Therefore, with implementation of **MM TRANS 1** through **TRANS-3**, Alternative 2 would have less than significant impacts related to this threshold.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. VMT would be generated during construction related to construction worker trips to/from the project site, material deliveries, water truck usages and haul truck trips. Based on the analyses conducted for construction air quality, greenhouse gas emissions, and energy, Alternative 2 would result in approximately 847,190 total VMT for the construction period. Increased VMT would also be generated temporarily during the first phase of construction related to longer commutes for some motorists who would need to detour around the project site on a less direct route than their typical commute directly along Culver Boulevard.

As a result of Alternative 2, VMT in the study area is estimated to decrease by approximately 1.74% compared to Alternative 1 conditions in 2030, and by 4.74% in 2050. The decrease in VMT is due to the elimination of the existing southbound bottleneck on the SR-1/Lincoln Boulevard bridge over Ballona Creek, which results in many vehicles using alternate routes that, while time efficient, require traveling a greater distance. These VMT reductions do not account for additional VMT reductions that would result from bicycle and pedestrian improvements as well as additional VMT reductions that would result from improved transit operations along SR-1/Lincoln Boulevard with Alternative 2 and with future BRT or LRT transit projects along SR-1/Lincoln Boulevard.

Alternative 2 would reconstruct and realign SR-1/Lincoln Boulevard within the project site so that it more effectively accommodates multiple modes of transportation, including the addition of sidewalks and bicycle lanes and area for future transit improvements. Alternative 2 would eliminate a southbound lane drop, which would improve traffic safety and allow for improved southbound vehicular operations and LOS at intersections in the project site. Operation of Alternative 2 would result in reductions in VMT when compared to the Alternative 1 due to drivers taking less circuitous routes around the project site.

In conclusion, Alternative 2 would result in less than significant impacts related to this threshold and no mitigation is required.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

<u>**Less Than Significant Impact**</u>. Alternative 2 would not involve any geometric design features or incompatible uses that would substantially increase hazards.

The proposed roadway geometry has been reviewed and approved by Caltrans and the City in accordance with applicable requirements. No sharp turns or dangerous intersections would result from Alternative 2. A Design Standard Decision Document (DSDD) was prepared for Alternative 2 to evaluate and provide justification for several deviations from the requirements contained within the Caltrans Highway Design Manual (HDM) (Psomas 2023e). These design variations are being proposed as part of Alternative 2 to reduce temporary and permanent effects within the BWER. The DSDD provides an overview and safety evaluation of each of the proposed deviations. The design variations proposed as part of the design of Alternative 2 are summarized below in Table 3-12. Furthermore, a less steep super elevation than required by the HDM is proposed, as a 5.6% super elevation would increase the comfort design speed for SR-1/Lincoln Boulevard to 65 mph, which is 20 mph greater than the planned/existing posted speed limit of 45 mph. A 5.6% standard superelevation rate and resultant comfort design speed of 65 mph is not compatible with the proposed pedestrian and bicycle features of the multimodal vision for the project site and vicinity (Psomas 2023e).

Table 3-12 – Design Standard Deviations for Alternative 2

Type	Required	Proposed	Existing
Shoulder Width	8 feet	2 feet	2 feet
Super Elevation	5.6%	-2%	-2%
Side Fill Slopes	4:1 or flatter	2:1	3:1

Source: Psomas 2023e – See Table 9 of that document.

These proposed deviations from the design standards that are proposed have each been reviewed by engineers from the consultant team as well as Caltrans and the City regarding their safety as part of the DSDD and the DPR.

Therefore, Alternative 2 would result in a less than significant impact related to this threshold and no mitigation is required.

d) Would the project result in inadequate emergency access?

Less Than Significant Impact. Alternative 2 would not result in inadequate emergency access.

Construction of Alternative 2 would require the temporary closure and detour of Culver Boulevard at SR-1/Lincoln Boulevard. Also, construction of Alternative 2 would require temporary lane closures along SR-1/Lincoln Boulevard. A minimum of two lanes would be maintained in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted as specified in the forthcoming TMP. **MM TRANS-1** would be implemented during construction of Alternative 2, requiring that the contractor implement a coordinated Transportation Management Plan (TMP) for Alternative 2 to avoid and minimize impacts to local vehicular traffic, pedestrians, and bicyclists. Implementation of **MM TRANS-1** would ensure that police, fire, and EMS are not substantially delayed in responding to calls for service.

SR-1/Lincoln Boulevard is a disaster route and Culver Boulevard is a tsunami evacuation route; therefore, improvements to circulation along SR-1/Lincoln Boulevard would improve circulation along an evacuation route. Also, the new SR-1/Lincoln Boulevard bridge over Ballona Creek is being designed to accommodate sea level rise, which would help to maintain this critical connections into the future. Therefore, Alternative 2 would improve the function of SR-1/Lincoln Boulevard as an evacuation route when compared to existing conditions.

Alternative 2 would not substantially conflict with any of the applicable emergency response or evacuation plans including the Los Angeles County Operational Area Emergency Response Plan, the City of Los Angeles Emergency Operations Plan, and the City of Los Angeles Hazard Mitigation Plan. Therefore, Alternative 2 would result in less than significant impacts related to this threshold, and no mitigation is required.

3.18 Tribal Cultural Resources

This topic is covered in greater detail within Chapter 2.1.12, Cultural Resources.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

and

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public

Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant With Mitigation Incorporated. For purposes of impact analysis, a tribal cultural resource is considered a site, feature, place, cultural landscape, sacred place, or object which is of cultural value to a California Native American Tribe and is either eligible for the CRHR[47] or a local register.

As described in greater detail within Chapter 2.1.12, Cultural Resources, cultural studies for the Project have included preparation of a Historic Property Survey Report (HPSR), Archaeological Survey Report (ASR), Historical Resources Evaluation Report (HRER), Extended Phase I (XPI), and Post Review Discovery Plan documents. Consultation has occurred with Native American groups, the Native American Heritage Commission, and the State Historic Preservation Office (SHPO).

In the HPSR Caltrans concluded that no historical resources are known to be present within the project site and that undisturbed portions of the APE have a low sensitivity for containing precontract resources associated with resource gathering and processing. As described in more detail in the HPSR, the remnants of a Pacific Electric Railway bridge that are immediately north of the Culver Boulevard overcrossing were determined to not meet historic eligibility criteria.

Out of an abundance of caution and in deference to Native American concerns, the City of Los Angeles, in coordination with Caltrans, will implement an archaeological and Native American monitoring program as outlined in the Project's Post-Review and Discovery Plan (PRDP) and as required by **MM CUL-1**, which specifies the archaeological monitoring protocols that shall be implemented during construction. The PRDP is provided as Attachment 6 to the HPSR. The PRDP includes minimum requirements related to archaeological monitoring procedures; Native American participation in monitoring; environmental sensitivity training; notification procedures; and procedures to be implemented in the case of human remains being encountered. The PRDP also includes procedures and protocols for archaeological field work, laboratory protocols, and procedures for processing of isolates and/or secondary deposits if they are encountered during construction. As required by Section 9 of the PRDP, a final Cultural Resources Monitoring Report would be prepared and circulated to Native American parties that were involved in consultation during the circulation of the Draft EIR/EA period.

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[47] Section 5020.1 of the Public Resources Code established the California Register of Historic Resources, as "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change."

Additionally, if previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey will be needed if the Project limits are extended beyond the current survey limits.

With implementation of the requirements in the PRDP as required in **MM CUL-1**, Alternative 2 would have less than significant impacts related to tribal cultural resources.

3.19 Utilities and Service Systems

This topic is covered in greater detail within Chapter 2.1.9, Utilities and Service Systems.

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. Alternative 2 would not expand any water, wastewater treatment, electric power, natural gas, or telecommunication facilities. Alternative 2 would require the relocation of existing utilities within the project site including water lines, natural gas lines, telecommunication facilities, and overhead electrical utilities as detailed in Chapter 2.1.9, Utilities and Service Systems. Alternative 2 would also require changes to the storm water conveyance systems within the project site as described in more detail in Chapter 2.2.1, Hydrology and Floodplain. All of these utility relocations and storm water-related improvements would occur within the limits of the impact footprint that has been evaluated in this Draft EIR/EA. All utility relocation would take place in coordination with each utility provider. Any minor temporary disruptions in service would be coordinated in advance with utility providers. As such, Alternative 2 would not require or result in the relocation or construction of new or expanded utility systems that are not yet accounted for in the analysis. Therefore, Alternative 2 would have less than significant impacts related to this threshold and no mitigation is required.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. Alternative 2 would not involve construction of any structures that would consume water or require an ongoing water supply. Water would be utilized temporarily during construction for the establishment of native plants within temporary impact areas of the project site; however, irrigation would be temporary and would cease at the end of construction as plants have naturalized. Thus, Alternative 2 would not affect water supply, infrastructure, or service and no adverse effects to water would result from operation of Alternative 2. Less than significant impacts would occur related to this threshold, and no mitigation is required.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. Construction activities for Alternative 2 would not result in the generation of substantial amounts of wastewater. Portable toilets would be available on-site for construction workers. Therefore, construction workers would not result in the discharge of wastewater into the existing sanitation systems.

Wastewater would be produced from dewatering activities. As required by **MM WQ-3,** groundwater encountered during construction will be temporarily stored onsite, tested, treated, and then disposed of. A dewatering permit will be obtained from the Los Angeles RWQCB prior to beginning construction activities that could encounter groundwater. Based on results of the groundwater assessment and recommendations from the RWQCB, the Contractor may utilize one or a combination of three different approaches to disposing of water obtained from dewatering operations, which are specified below:

- Onsite Treatment: This approach involves the installation and usage of a temporary water treatment plant for treating water generated from dewatering operations to reduce the concentrations of pollutants of concern below NPDES limits.
- Treatment and Disposal Offsite: This approach involves the temporary storage of water on the project site, waste profiling, and then transporting the water to a regulated facility for treatment and disposal. Based on results of the groundwater investigation, the groundwater could be profiled as either hazardous waste or nonhazardous waste.
- Disposal into Local Sewer System: This approach would entail disposal of the groundwater into the City of Los Angeles sewage treatment system. The groundwater can be disposed by connecting the dewatering operation to a local sewer line adjacent to the project site or to a trunk line. The type of sewer line connection is dependent upon the rate of flow of the groundwater from the dewatering operation and would be determined by the permitting agency. To dispose of groundwater into the City of Los Angeles sewer system, an Industrial Wastewater Discharge Permit is required, which is issued by the City of Los Angeles Department of Public Works, Bureau of Sanitation, Industrial Waste Management Division (IWMD). To satisfy permit conditions, treatment of discharge water would be required.

As noted above, if wastewater needs to be disposed of in the local sewer system coordination with the City and County and permits would be obtained, which would ensure that proposed inputs into the sewer system do not exceed existing capacity.

Alternative 2 would not develop any structures or land uses that would generate wastewater. Thus, Alternative 2 would not affect wastewater treatment capacity, infrastructure, or service. No adverse effects to wastewater treatment would result from operation of Alternative 2.

As such, impacts associated with wastewater generation would be less than significant and no mitigation is required.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. Construction of Alternative 2 would result in the generation of debris from the demolition of the existing roadways and bridge structures within the project site. Demolition of these existing facilities would require disposal of materials including asphalt, concrete, steel, rebar, and other materials. A minimum 50 percent of construction and demolition debris would be diverted in accordance with requirements of AB 75. Exported debris would likely be hauled to the Sunshine Canyon Landfill, the Calabasas Landfill, or the Chiquita Canyon Sanitary Landfill, which have remaining capacities of 77,900,000 cubic yards, 14,500,000 cubic yards, and 60,408,000 respectively (CalRecycle 2023a, 2023b). Alternative 2 would require disposal of approximately 24,491 cubic yards of waste[48], which would be accommodated within the remaining capacities of existing landfills (Psomas 2023).

Alternative 2 would not develop any structures or land uses that would generate solid waste that would require disposal. Thus, Alternative 2 would not affect solid waste disposal providers or their facilities.

As such, impacts associated with solid waste generation would be less than significant and no mitigation is required.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. During construction and operation, Alternative 2 would be required to comply with applicable federal, State, and local management and reduction laws and regulations regarding the proper disposal of solid waste, including the County of Los Angeles Zoning Code as it relates to solid waste and recycling. Regulations specifically applicable to Alternative 2 include the California Integrated Waste Management Act of 1989 (AB 939) and the

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48 Lincoln Bridge demolition waste was calculated by multiplying a 335’ length by a 69’ width by a 40’ height. The result was multiplied by 0.33 and then divided by 27 resulting in 11,300 cubic yards. Culver Bridge demolition waste was calculated by multiplying a 145’ length by a 50’ width’, and a 25’ height. The result was multiplied by 0.33 and then divided by 27 resulting in 2,215 cubic yards. The roadway removal waste was calculated by multiplying a 3,000’ length by a 90’ width and a 2.5’ depth. The result was multiplied by 0.33 and then divided by 27 resulting in 8,250 cubic yards. The abutments north of the Culver Boulevard Bridge would result in 1,197 cubic yards of waste. And additional materials discarded and packaging is estimated to be approximately 1,527 cubic yards.

CALGreen Code. As such, a less than significant impact would occur related to this threshold, and no mitigation is required.

3.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant With Mitigation Incorporated. The project site is not located within a fire zone; however, the LAFD identifies areas south of Jefferson Boulevard as being within a fire zone (LAFD 2023a).

Alternative 2 would not substantially conflict with any of the policies contained in applicable emergency response or evacuation plans including the Los Angeles County Operational Area Emergency Response Plan, the City of Los Angeles Emergency Operations Plan, or the City of Los Angeles Hazard Mitigation Plan.

The Los Angeles County Operational Area Emergency Response Plan outlines the emergency management framework for the County of Los Angeles (Los Angeles County 2012d). The

Emergency Response Plan serves as a guide for coordinating and responding to various emergencies and disasters within the county.

SR-1/Lincoln Boulevard is designated as a Primary Disaster Route (Freeway) in the Disaster Route Maps provided as part of the Los Angeles County Operational Area Emergency Response Plan. Disaster Routes are freeway, highway or arterial routes pre-identified for use during times of crisis. These routes are utilized to bring in emergency personnel, equipment, and supplies to impacted areas in order to save lives, protect property and minimize impact to the environment. During a disaster, these routes have priority for clearing, repairing and restoration over all other roads.

The Tsunami Index within the Los Angeles County Operational Area Emergency Response Plan identifies Culver Boulevard as a Coastal Evacuation Route (Los Angeles County 2012d).

Construction of Alternative 2 would require the temporary closure and detour of Culver Boulevard at SR-1/Lincoln Boulevard. Also, construction of Alternative 2 would require temporary lane closures along SR-1/Lincoln Boulevard. A minimum of two lanes would be maintained in the northbound and southbound directions of SR-1/Lincoln Boulevard throughout construction, except during off-peak hours when one-lane in each direction may be permitted as specified in the forthcoming TMP. **MM TRANS-1** would be implemented during construction of Alternative 2, requiring that the contractor implement a coordinated Transportation Management Plan (TMP) for Alternative 2 to avoid and minimize impacts to local vehicular traffic, pedestrians, and bicyclists. Implementation of **MM TRANS-1** would ensure that police, fire, and EMS are not substantially delayed in responding to calls for service.

The City of Los Angeles Emergency Management Department develops and maintains an Emergency Operations Plan (City of Los Angeles 2018c). This plan outlines the city's response and coordination efforts during emergencies and disasters. It includes procedures for incident management, resource allocation, communication, and evacuation. Alternative 2 would not affect Response Goals, Priorities, or Strategies contained in Section V of the Emergency Operations Plan as these are very high level policies not applicable to a Project. There are no specific policies in the City’s Emergency Operations Plan that relate to Alternative 2.

The City of Los Angeles has a Hazard Mitigation Plan that assesses the risks and vulnerabilities within the city and identifies strategies and actions to reduce the impact of hazards, such as earthquakes, wildfires, and floods (City of Los Angeles 2018d). The Hazard Mitigation Plan is a comprehensive document that outlines strategies and actions for reducing the risks and impacts of hazards in the county. The Hazard Mitigation Plan is designed to identify, assess, and prioritize the hazards that the county faces and provide a framework for mitigation efforts. There are no specific policies in the City's Hazard Mitigation Plan that relate to Alternative 2.

With implementation of **MM TRANS-1**, Alternative 2 would have a less than significant impact related to this threshold.

b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less Than Significant Impact. The project site is not located within a fire zone; however, the LAFD identifies areas south of Jefferson Boulevard as being within a fire zone (LAFD 2023a).

Construction of Alternative 2 would not alter the slope, prevailing winds, and other factors, within the project site in any way that would exacerbate wildfire risks. SR-1/Lincoln Boulevard would be at a higher elevation than in existing conditions with 2:1 slopes leading down to the adjacent BWER in most areas. This would not increase fire risks when compared to the existing roadway through the same area.

During construction, vegetation would be cleared from the temporary and permanent impact areas of the project site. This would result in a temporary decrease in potential wildfire fuel load in an area that is adjacent to a fire zone.

During construction, there would be construction activities that would temporarily increase wildfire risks. Some of the factors within a construction site that could increase fire risks include: the presence of flammable waste materials; the use of flammable and explosive substances like gases and solvents; the storage of building materials on site which are often flammable; and the production of sparks from activities such as welding.

Typical work precautions would be implemented during construction of Alternative 2 to minimize potential for construction activities and workers to accidentally begin fires that could spread to the BWER, which are specified in more detail in Chapter 7-1.02M (2) of the Caltrans 2022 Standard Specifications, which cover standard fire protection requirements for project sites. Requirements in the specifications include: preparing a fire prevention plan; submitting the names and emergency telephone numbers of the nearest fire suppression agencies before the start of job site activities as an informational submittal; posting the names and phone numbers at a prominent place at the job site; submitting a copy of a fire prevention plan required by Cal/OSHA as an informational submittal before the start of job site activities; cooperating with fire prevention authorities in performance of the work; immediately reporting fires occurring within and near the project limits by dialing 911 and to the nearest fire suppression agency by using the emergency phone numbers retained at the job site; and preventing the escape of and extinguish fires caused directly or indirectly by job site activities.

All temporarily impacted areas would be re-planted with native plant species that could burn in the event of a fire. However, these temporary impact areas already contain a mix of non-native, invasive grasses and native plant communities that are already flammable. Therefore, Alternative 2 would result in similar fire hazards to the roadway, users of the roadway, and neighboring people and structures when compared to existing conditions.

During operation of Alternative 2, more pedestrians, bicyclists, and vehicles would be able to travel together along SR-1/Lincoln Boulevard. Since most fires in recent history are ignited by humans, it is conceivable that more humans along the roadway would increase the ignition of fires. However, when compared to existing conditions where no sidewalks exist, Alternative 2 would provide sidewalks for pedestrians that would better keep people from areas with natural vegetation. This would help to reduce wildfire effects from increased human activity.

As such, Alternative 2 would have less than significant impact related to this threshold and no mitigation is required.

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact. The project site is not located within a fire zone; however, the LAFD identifies areas south of Jefferson Boulevard as being within a fire zone (LAFD 2023a).

Alternative 2 would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Alternative 2 would re-locate existing overhead power lines but would not result in an increase in these overhead lines or in their hazard to the public.

No fuel modification zones are anticipated outside of the permanent impact footprint would be required.

As such, Alternative 2 would have a less than significant impact related to this threshold, and no mitigation is required.

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. The project site is not located within a fire zone; however, the LAFD identifies areas south of Jefferson Boulevard as being within a fire zone (LAFD 2023a).

In existing conditions, the project site is mostly surrounded by the BWER, which has a mix of native and non-native vegetation that could catch fire. Alternative 2 would construct two replacement bridge structures, and would realign, reprofile, and reconstruct a wider SR-1/Lincoln Boulevard and Culver Boulevard. These structures and the people who travel along them would be exposed to wildfire risks as they are in existing conditions. However, the structures would be set back from vegetated areas by sidewalks which would minimize risk to any of these concrete structures which are already fire-resistant. There is potential that guardrails, roadway signage with wooden posts, and similar aspects of the roadway could be burnt during such an event. It is assumed that utility poles for new/relocated lighting and overhead power lines would be fire-resistant, which would minimize risks of these facilities being affected during a fire. In the event of a fire, it is assumed that travelers along SR-1/Lincoln Boulevard would head north towards Fiji Way or south towards Jefferson Way away from the fire event.

Alternative 2 would not otherwise pose a substantial risk to people or structures downstream of the project site related to runoff, drainage changes, or downstream flooding, as described more in Chapter 2.2.1, or regarding landslides, as described more in Chapter 2.2.3.

Post -fire slope stability is not anticipated to be a concern given that Alternative 2 would result in manufactured slopes and drainage systems that would not be substantially affected by minor wildfire events.

Therefore, Alternative 2 would have a less than significant impact related to this threshold and no mitigation is required.

3.21 Mandatory Findings of Significance

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant With Mitigation Incorporated. Alternative 2 would result in less than significant impacts with mitigation measures incorporated related to biological resources, cultural resources, and tribal cultural resources.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact. The potential cumulative effects of Alternative 2 in combination with other cumulative projects have been evaluated throughout this Draft EIR/EA. Alternative 2 would not have impacts that are individually limited but cumulatively considerable when viewed in connection with the effects of past, current, and probable future projects. Therefore, Alternative 2 would result in a less than significant impact related to this threshold.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant With Mitigation Incorporated. With incorporation of mitigation measures, Alternative 2 would result in less than significant impacts related to all environmental resource topics relating directly and indirectly to human beings, including aesthetics, agriculture and forestry resources, air quality, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire.

3.22 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over millennia, or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to GHG emissions generated from the production and use of fossil fuels.

Human activities generate GHGs consisting primarily of carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF6), and various hydrofluorocarbons (HFCs). CO2 is the most abundant GHG; while it is a naturally occurring and necessary component of Earth’s atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO2 that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO2.

The impacts of climate change are already being observed in the form of sea level rise, drought, extended and severe fire seasons, and historic flooding from changing storm patterns. The most important strategy to address climate change is to reduce GHG emissions. Additional strategies are necessary to mitigate and adapt to these impacts. In the context of climate change, “mitigation” involves actions to reduce GHG emissions to lessen adverse impacts that are likely to occur. “Adaptation” is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis includes a discussion of both in the context of this transportation project.

Regulatory Setting

Neither the U.S. EPA nor the FHWA has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in this CEQA chapter of the Draft EIR/EA. The CEQA analysis may be used to inform the NEPA determination for the project.

Federal

To date, no nationwide numeric mobile-source GHG reduction targets have been established, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project. In January 2023, the White House Council on Environmental Quality (CEQ) issued updated and expanded interim National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (88 Fed. Reg. 1196) (CEQ NEPA GHG Guidance), in accordance with EO 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, 86 FR 70935 (Dec. 13, 2021) and EO 14008, Tackling the Climate Crisis at Home and Abroad. The CEQ guidance does not establish numeric thresholds of significance but emphasizes quantifying reasonably foreseeable lifetime direct and indirect emissions whenever possible. This guidance also emphasizes resilience and environmental justice in project-level climate change and GHG analyses.

The FHWA recognizes the threats that extreme weather, sea level rise, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2022a). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— "the triple bottom line of sustainability" (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Early efforts by the federal government to improve fuel economy and energy efficiency to address climate change and its associated effects include The Energy Policy and Conservation Act of 1975 (42 USC Section 6201); and Corporate Average Fuel Economy (CAFE) Standards. The U.S. Department of Transportation's National Highway Traffic and Safety Administration (NHTSA) sets and enforces corporate average fuel economy (CAFÉ) standards for on-road motor vehicles sold in the United States. The Environmental Protection Agency (U.S. EPA) calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards for vehicles under the Clean Air Act. Raising CAFE standards leads automakers to create a more fuel-efficient fleet, which improves our nation's energy security, saves consumers money at the pump, and reduces GHG emissions (U.S. DOT 2014a). These standards are periodically updated and published through the federal rulemaking process.

State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs).

In 2005, EO S-3-05 initially set a goal to reduce California's GHG emissions to 80 percent below year 1990 levels by 2050, with interim reduction targets. Later EOs and Assembly and Senate bills refined interim targets and codified the emissions reduction goals and strategies. The California Air Resources Board (ARB) was directed to create a climate change scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Ongoing GHG emissions reduction was also mandated in Health and Safety Code (H&SC) Section 38551(b). In 2022, the California Climate Crisis Act was passed, establishing state policy to reduce statewide human- caused GHG emissions by 85 percent below 1990 levels, achieve net zero GHG emissions by 2045, and achieve and maintain negative emissions thereafter.

Beyond GHG reduction, the State maintains a climate adaptation strategy to address the full range of climate change stressors and passed legislation requiring state agencies to consider protection and management of natural and working lands as an important strategy in meeting the state's GHG reduction goals.

Environmental Setting

The Project involves multimodal improvements along SR-1/Lincoln Boulevard, which is also designated as State Route 1 (SR-1), between Jefferson Boulevard and just south of Fiji Way in the City and County of Los Angeles. SR-1/Lincoln Boulevard is a major route traveling northwest to southeast on the Westside of Los Angeles County (Westside), connecting major destinations including the City of Santa Monica to the north, and Loyola Marymount University, Otis College of Art and Design and Los Angeles International Airport to the south. The stretch of SR-1/Lincoln Boulevard within the project site provides a critical and heavily traveled connection between and amongst the communities of Playa Del Rey, Playa Vista, Westchester, and El Segundo in the south and Marina Del Rey, Del Rey, Venice, Culver City, Mar Vista, and Santa Monica in the north. The surrounding area features a mix of uses including commercial, multi-family residential, and nature preserves/parks.

SCAG's RTP/SCS guides transportation development in the Project area. In addition, the Los Angeles County 2045 CAP, a supplement to the County's Air Quality Element, and the City of

Los Angeles 2019 Sustainable City pLAn, also known as the City's Green New Deal, both address GHGs in the Project area.

GHG Inventories

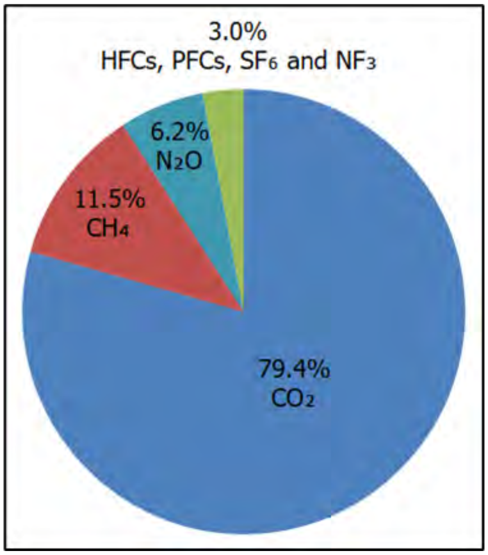
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state of California, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

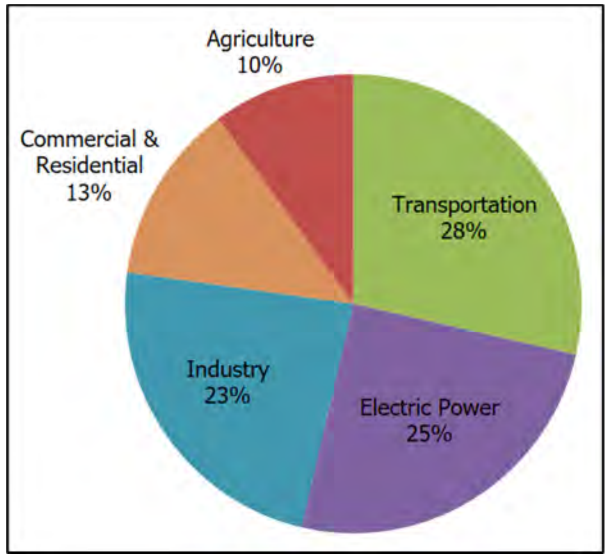
National GHG Inventory

The annual GHG inventory submitted by the U.S. EPA to the United Nations provides a comprehensive accounting of all human-produced sources of GHGs in the United States. Total national GHG emissions from all sectors in 2021 were 5,586.0 million metric tons (MMT), factoring in deductions for carbon sequestration in the land sector. (Land Use, Land Use Change, and Forestry provide a carbon sink equivalent to 12% of total U.S. emissions in 2021 [U.S. EPA 2023a].) While total GHG emissions in 2021 were 17% below 2005 levels, they increased by 6% over 2020 levels. Of these, 79.4% were CO2, 11.5% were CH4, and 6.2% were N2O; the balance consisted of fluorinated gases. From 1990 to 2021, CO2 emissions decreased by only 2% (U.S. EPA 2023a).

The transportation sector's share of total GHG emissions increased to 28% in 2021 and remains the largest contributing sector (Figure 2.2.9-1). Transportation fossil fuel combustion accounted for 92% of all CO2 emissions in 2021. This is an increase of 7% over 2020, largely due to the rebound in economic activity following the COVID-19 pandemic (U.S. EPA 2023a, 2023b).

Figure 2.2.9-1. U.S. 2021 Greenhouse Gas Emissions



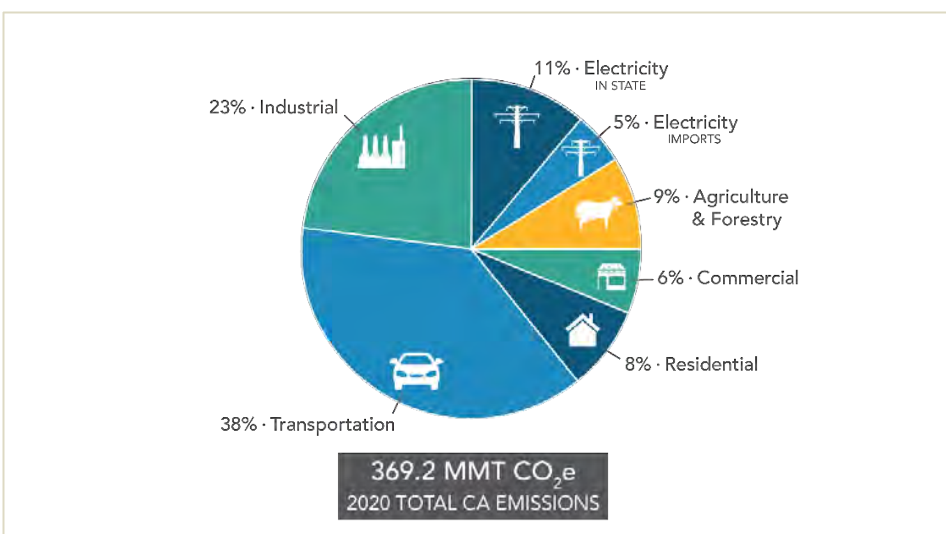


(Source: U.S. EPA 2023b)

State GHG Inventory

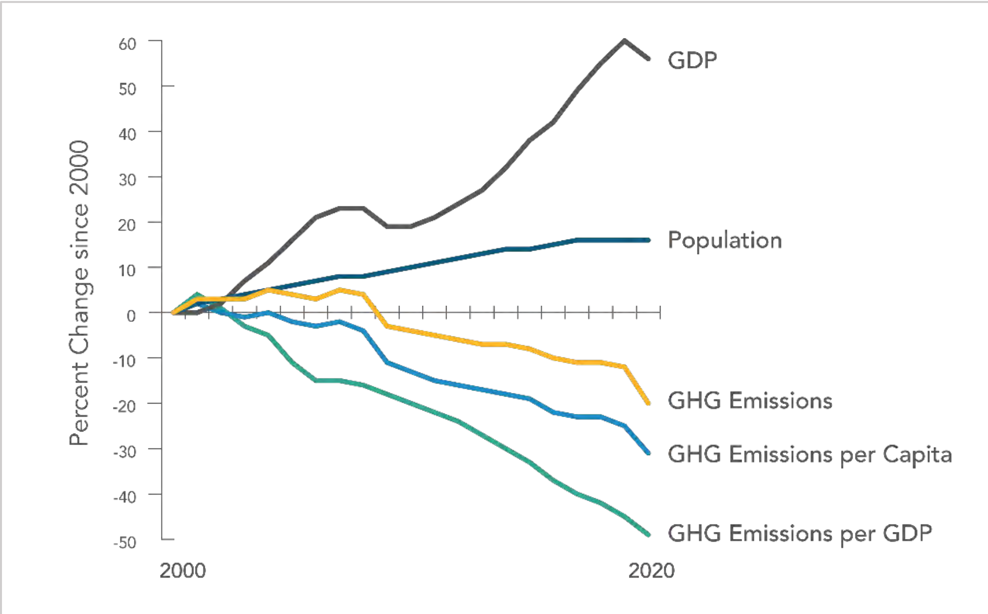
ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. Overall statewide GHG emissions declined from 2000 to 2020 despite growth in population and state economic output (refer to Figure 2.2.9-2) (ARB 2022a).

Figure 2.2.9-2. California 2020 Greenhouse Gas Emissions by Economic Sector



(Source: ARB 2022a)

Figure 2.2.9-3. Change in California GDP, Population, and GHG Emissions since 2000



(Source: ARB 2022a)

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions. ARB adopted the first scoping plan in 2008. The second updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The 2022 Scoping Plan for Achieving Carbon Neutrality, adopted September 2022, assesses progress toward the statutory 2030 reduction goal and defines a path to reduce human-caused emissions to 85 percent below 1990 levels and achieve carbon neutrality no later than 2045, in accordance with AB 1279 (ARB 2022b).

Regional Plans

As required by The Sustainable Communities and Climate Protection Act of 2008, ARB sets regional GHG reduction targets for California's 18 metropolitan planning organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed Project is included in the 2020 RTP/SCS and the 2024 RTP/SCS for SCAG (SCAG 2020a and 2024a).

SCAG's 2020 RTP/SCS was adopted on September 3, 2020. The 2020 RTP/SCS is the most recent, fully adopted long-range transportation plan and sustainability strategy that covers the SCAG region, which consists of the counties of Ventura, Los Angeles, Orange, San Bernardino, Riverside, and Imperial. SCAG is required by federal law to prepare and update a long-range RTP (23 U.S.C. §134 et seq.). The RTP must include, among other things: the identification of transportation facilities such as major roadways, transit, intermodal facilities and connectors that function as an integrated metropolitan system over at least a 20 year forecast period; a financial plan demonstrating how the RTP can be implemented with "reasonably available" resources and additional financial approaches; strategies to improve existing facilities and relieve vehicular congestion and maximize the safety and mobility of people and goods; and environmental mitigation activities (SCAG 2020a). SCAG's 2024 RTP/SCS has been adopted by SCAG and is awaiting approval by FHWA.

Table 2.2.9-1 – Applicable GHG Reduction Policies and Strategies

Environmental Consequences

GHG emissions from transportation projects can be divided into those produced during operation and use of the State Highway System (SHS) (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO2, CH4, N2O, and HFCs. CO2 emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH4 and N2O. A small amount of HFC emissions related to refrigeration is also included in the transportation sector. (GHGs differ in how much heat each traps in the atmosphere, called global warming potential, or GWP. CO2 is the most important GHG, so amounts of other gases are expressed relative to CO2, using a metric called "carbon dioxide equivalent", or CO2e. The global warming potential of CO2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO2.)

The State CEQA Guidelines generally address GHG emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (State CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions for Alternative 2

ARB developed the EMission FACtors (EMFAC) model to facilitate preparation of statewide and regional mobile source emissions inventories. The model generates emissions rates that can be multiplied by vehicle activity data from all motor vehicles, including passenger cars to heavy-duty trucks, operating on highways, freeways, and local roads in California. Caltrans' CT-EMFAC model uses data derived from EMFAC to streamline project-level emissions analyses. Caltrans recommends using the CT-EMFAC model for quantifying mobile source emissions from transportation projects on the California State Highway System.

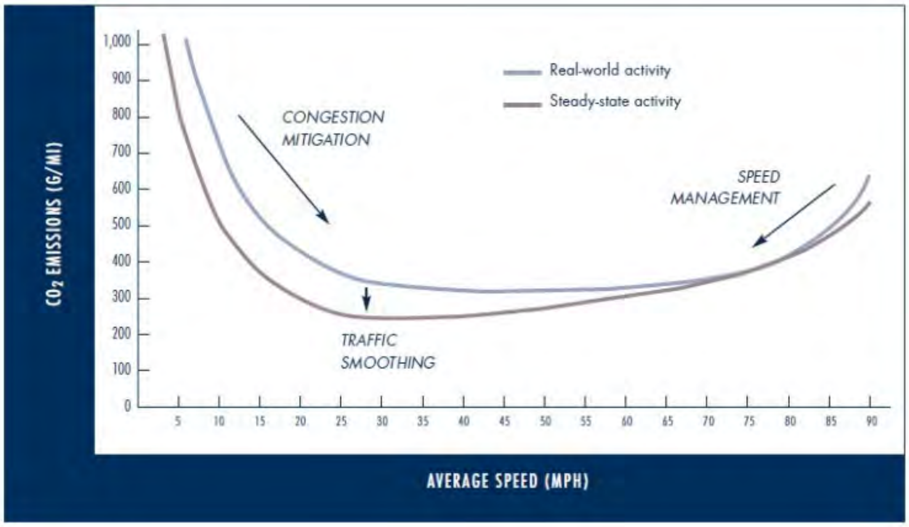
ARB released EMFAC2021 in January 2021, and an update (v1.0.1) in April 2021. EMFAC2021 includes updated vehicle emissions and fuel consumption data and incorporates the latest default travel activity data for car and truck fleets as of that time. U.S. EPA has approved, and now requires, EMFAC2021 for use in conformity analysis in NEPA documents; it therefore should also be used to quantify GHG emissions in Caltrans documents because it incorporates the latest planning assumptions and quantification methods.

The National GHG Inventory for 2021 reported that 79 percent of all U.S. GHG emissions in 2021 consisted of CO2, and fossil fuel combustion for transportation accounted for 92 percent of those CO2 emissions. Most (58 percent) transportation-related CO2 was from operating light-duty vehicles, and 25 percent was from medium- and heavy-duty trucks and buses. The remainder of CO2 emissions came from off-road sources (U.S. EPA 2023a). Because CO2 emissions represent the greatest percentage of GHG emissions, it has been selected as a proxy for the following analysis for potential climate change impacts.

The highest levels of CO2 from mobile sources such as automobiles occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 2.2.9-4). To the extent that a project enhances operational efficiency and improves travel times in high-congestion travel corridors, GHG emissions, particularly CO2, may be reduced, provided that improved travel times do not induce additional VMT.

Four primary strategies can reduce GHG emissions from transportation sources: (1) improving the transportation system and operational efficiencies, (2) reducing travel activity, (3) transitioning to lower GHG emitting fuels, and (4) improving vehicle technologies and efficiency. To be most effective, all four strategies should be pursued concurrently.

Figure 2.2.9-4. Possible Use of Traffic Operation Strategies in Reducing On-road CO_2 Emissions



(Source: Barth and Boriboonsomsin 2010)

As indicated previously, the project site is located within SCAG boundaries. In addition, the Project was mentioned in SCAG's 2020 RTP/SCS and 2024 RTP/SCS. Alternative 2 would be consistent with the scope of improvements and the project limits for the Project that are identified in the 2020 RTP/SCS and the 2024 RTP/SCS. Also, Alternative 2 conforms to the following policies and strategies outlined in the 2020 RTP/SCS:

- Plan for growth near transit investments and support implementation of first/last mile strategies. Alternative 2 would provide new protected bicycle lanes and improved sidewalks along Lincoln Boulevard in between Fiji Way and Jefferson Boulevard. New sidewalks and protected bicycle lanes would also be installed along the Culver Boulevard overpass.
- Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations). Alternative 2 would provide new sidewalks and protected bicycle lanes along a segment of Lincoln Boulevard extending south from Fiji Way to Jefferson Boulevard. The new improvements would benefit from being located in proximity to higher density housing.
- Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space. The

installation of protected bicycle lanes would facilitate the use of electric scooters in the area.

- Transportation Demand Management (TDM): Reduce the number of Single-Occupancy Vehicles (SOV) trips through use of other modes such as transit, rail, bicycling, and walking, or other micro-mobility mode. Alternative 2 would promote the use of bicycling and walking as alternatives to SOV trips by providing new sidewalks and protected bicycle lanes on a segment of Lincoln Boulevard extending south of Fiji Way to Jefferson Boulevard and new sidewalks and protected bicycle lanes to a segment of Culver Boulevard that extends over the overpass.
- Active Transportation Improvements: Increased investments in Complete Streets within Livable Corridors and intersecting arterials are essential to support safe bicycling and walking. Investments should include protected lanes to encourage safe bicycling and lower speed mobility, improved pedestrian access and bicycle and micro-mobility parking. Alternative 2 would facilitate safer bicycling and walking by providing new sidewalks and protected bicycle lanes.
- Active Transportation Strategies: Connect SoCal includes a wide variety of infrastructure projects that will support short and regional active transportation trips. These strategies would reduce automobile vehicle miles traveled by increasing the number of trips accomplished by walking, bicycling and the use of micro-mobility devices. These strategies include building physical infrastructure such as local and regional bikeways, sidewalk and safe routes to schools pedestrian improvements, regional greenways and first-last mile connections to transit. In addition to reducing vehicle miles traveled, these strategies will improve air quality and public health by reducing emissions and increasing levels of physical activity. Finally, they will have a positive economic impact on the region by reducing transportation and healthcare costs. Alternative 2 would facilitate safer bicycling and walking by providing new sidewalks and protected bicycle lanes along the segment of Lincoln Boulevard extending south from Fiji Way to Jefferson Boulevard and by providing new sidewalks and bicycle lanes along the Culver Boulevard overpass.

Alternative 2 would reduce VMT within a 1.5-mile radius by 1.7 percent in the year 2030, with additional reductions in VMT of 4.7 percent by the year 2050 (Fehr and Peers 2023a). In addition, Alternative 2 would improve operational efficiency of the SR-1/Lincoln Boulevard and Jefferson Boulevard intersection by providing a dedicated right-turn lane at the SR-1/Lincoln Boulevard southbound approach. The Project is also included as a “strategic project” in the SCAG Connect SoCal Transportation System Project List (SCAG 2020b).

Quantitative Analysis of GHG Emissions

A GHG emissions analysis was conducted using the latest approved version of the EMFAC2021 model. While EMFAC2021 has a rigorous scientific foundation and has been vetted through multiple stakeholder reviews, its emission rates are based on tailpipe emission test data and have limitations. The EMFAC2021 -based CO2e emissions estimates are used for comparison of alternatives. However, the model does not account for factors such as the vehicle operation mode (e.g., rate of acceleration) and the vehicles' aerodynamics, which would influence CO2e emissions. ARB's GHG Inventory follows the IPCC guideline by assuming complete fuel combustion, while still using EMFAC data to calculate CH4 and N2O emissions.

As shown in Table 2.2.9-3, implementation of Alternative 2 would result in a reduction in annual VMT. Alternative 2 would involve the construction of various multimodal transportation improvements, including bicycle lanes, that would encourage individuals to utilize alternative forms of transportation.

Table 2.2.9-2 – VMT Evaluation of Induced Demand for GHG Emissions Analysis in CO2-Equivalents

Alternative	A. Annual VMT	B. Alternative 2-induced Annual VMT (Induced Demand)	C. Alternative 2 Reduction in Annual Induced Demand due to VMT Mitigation	D. Net Induced Demand Value in annual VMT due to project (Col. B minus Col. C)	E. Net VMT for GHG calculation (Annual VMT plus Net Induced Demand Value: Col. A plus Col. D)
Existing/Baseline – 2019	593,873	0	0	0	593,873
Open to Traffic Year 2030	-	-	-	-	-
Alternative 1 No Build	632,532	0	0	0	632,532
Alternative 2 Build	632,532	0	-10,982	-10,982	621,550
Design Year 2050	-	-	-	-	-
Alternative 1 No Build	700,441	0	0	0	0
Alternative 2 Build	700,441	0	-33,215	-33,215	667,226

Source: Fehr & Peers 2023a.
Col.: column. VMT: vehicle miles traveled.

As shown in Table 2.2.9-3, implementation of Alternative 2 would result in a reduction in GHG emissions compared to both the existing conditions and to Alternative 1, the no build alternative. Alternative 2 would provide multimodal transportation improvements that would contribute to a reduction in VMT.

ARB developed the EMission FACtors (EMFAC) model to facilitate preparation of statewide and regional mobile source emissions inventories. The model generates emissions rates that can be multiplied by vehicle activity data from all motor vehicles, from passenger cars to heavy-duty trucks, operating on highways, freeways, and local roads in California. EMFAC has a rigorous scientific foundation, has been approved by U.S. EPA, and has been vetted through multiple stakeholder reviews. Caltrans developed CT-EMFAC to apply project-specific factors to ARB's model.

Table 2.2.9-3 – Modeled Annual CO_2e Emissions and Vehicle Miles Traveled, by Alternative

Alternative	CO_2e Emissions (Metric Tons/Year)	Annual Vehicle Miles Traveled[1]
Existing/Baseline Year 2019	74,444	206,073,931
Opening Year (2030)	-	-
Alternative 1	68,358	219,488,604
Alternative 2	62,678	215,677,850
Opening Year Difference Between Alternative 2 and Alternative 1	-5,680	-3,810,754
Design Year (2050)	-	-
Alternative 1	59,260	243,053,027
Alternative 2	56,450	231,527,422
Design Year Difference Between Alternative 2 and Alternative 1	-2,810	-11,525,605

CO_2e = carbon dioxide equivalent

Source: EMFAC2021

1 Annual VMT values derived from Daily VMT values multiplied by 347, per ARB methodology (ARB 2008).

EMFAC's GHG emission rates are based on tailpipe emissions test data and the model does not account for factors such as the rate of acceleration and vehicle aerodynamics, which influence the amount of emissions generated by a vehicle. GHG emissions quantified using CT-EMFAC are therefore estimates and may not reflect actual on-road emissions. The model does not, however, account for induced travel. Modeling GHG estimates with EMFAC or CT-EMFAC nevertheless remains the most precise means of estimating future GHG emissions. While CT-EMFAC is currently the best available tool for calculating GHG emissions from mobile sources, it is important to note that the GHG results are only useful for a comparison of alternatives.

Construction GHG Emissions

Construction GHG emissions would result from material processing and transportation, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. While construction GHG emissions are only produced for a short time, they have long-term effects in the atmosphere, so cannot be considered "temporary" in the same way as criteria pollutants that subside after construction is completed.

Construction GHG emissions were calculated with the California Emissions Estimator Model (CalEEMod) and are shown in Table 2.2.9-4. Construction is expected to last for approximately 36 months and would result in a maximum of 3,496 metric tons of CO_2e per phase for Alternative 2 and a total of 5,662 metric tons of CO_2e for all phases of construction of Alternative 2. When amortized over a 30-year period, construction CO_2e emissions decrease to 189 $MTCO_2$e per year for Alternative 2.

Table 2.2.9-4 – Modeled Construction GHG Emissions by Construction Phase

Project Phase	CO_2 (tons/phase) for Alternative 2	CO_2 (tons/phase) for Alternative 2A	CO_2 (tons/phase) for Alternative 2B	CO_2 (tons/phase) for Alternative 2C	CO_2 (tons/phase) for Alternative 2D
Grubbing/ Land Clearing	130	130	130	130	130
Grading/Excavation	3,496	3,496	3,496	3,496	3,517
Drainage/Utilities/ Sub-Grade	1,848	1,848	1,848	1,848	1,858
Paving	188	188	188	206	189
Maximum (tons/phase)	NA	NA	NA	NA	NA

Source: Psomas 2024a.
NA=Not applicable.

Several of the avoidance, minimization, and mitigation measures presented in Chapter 2.2.6, Air Quality, would also relate to GHG emissions.

In addition, all construction contracts include Caltrans Standard Specifications related to air quality. Section 7-1.02A, General, requires contractors comply with laws, regulations, orders, and decrees applicable to the project. . Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

Alternative 2 would encourage non-automobile forms of transportation which would not only reduce VMT, but emissions associated with vehicles. The alleviation of traffic congestion that would result from implementation of Alternative 2 would result in a 1.7 percent decrease in VMT by the year 2030, and a 4.7 percent decrease in VMT by the year 2050. The decrease in VMT facilitated by the Project's implementation would also result in a reduction of 6,346 MTCO2e by 2030 and 2,835 MTCO2e by 2050 when compared to Alternative 1. In addition, Alternative 2 conforms with the applicable GHG reduction plans: SCAG's 2020 RTP/SCS, SCAG's 2024 RTP/SCS, 2019 pLAn Sustainable City Plan, and the 2045 Los Angeles County Climate Action Plan. As such, there will be continuous annual reductions in GHG emissions attributable to Build Alternative 2.

GHG Reduction Strategies

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

Statewide Efforts

In response to Assembly Bill 32, the Global Warming Solutions Act, California is implementing measures to achieve emission reductions of GHGs that cause climate change. Climate change programs in California are effectively reducing GHG emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation, industry, fuels, and other sectors to take California into a sustainable, cleaner, low-carbon future, while maintaining a robust economy (ARB 2022c).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research identified five sustainability pillars in a 2015 report: (1) Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030; (2) Reducing petroleum use by up to 50 percent by 2030; (3) Increasing the energy efficiency of existing buildings by 50 percent by 2030; (4) Reducing emissions of short-lived climate pollutants; and (5) Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (OPR 2015).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). Reducing today's petroleum use in cars and trucks is a key state goal for reducing GHG emissions by 2030 (California Environmental Protection Agency 2015).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency released Natural and Working Lands Climate Smart Strategy (California Natural Resources Agency 2022).

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

Climate Action Plan for Transportation Infrastructure

The California Action Plan for Transportation Infrastructure (CAPTI) builds on executive orders signed by Governor Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40 percent of all polluting emissions, to reach the state's climate goals. Under CAPTI, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate, health, and social equity goals (California State Transportation Agency 2021a).

California Transportation Plan

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021a).

Caltrans Strategic Plan

The Caltrans 2020–2024 Strategic Plan includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021b).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a policy to ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities. Other Director's policies promote energy efficiency, conservation, and climate change, and commit Caltrans to sustainability practices in all planning, maintenance, and operations. Caltrans Greenhouse Gas Emissions and Mitigation Report (Caltrans 2020) provides a comprehensive overview of Caltrans' emissions and current Caltrans procedures and activities that track and reduce GHG emissions. It identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Caltrans and State goals.

Project-Level GHG Reduction Strategies

The following measures will also be implemented to reduce GHG emissions and potential climate change impacts from the project. These measures are considered to be project features. According to the memorandum, Significance and Mitigation under CEQA (Caltrans 2016).

Project features are taken into account prior to making a significance determination. Typical project features, which are not generally considered mitigation, include:

- Features directly related to the Purpose and Need of the project.
- Features or improvements included as part of the project description such as repaving, drainage improvements, culvert work, lighting, signage, etc.
- Features required to meet design standards, such as slopes, seismic design standards, guardrail type, or shoulder widths.
- Certain features generally applied to most or all Caltrans projects, where Caltrans lacks the discretion in the context of a particular project to consider alternative measures, or where a range of other measures has already been considered, such as the Standard Plans and Specifications or as a Standard Special Provision, water quality BMPs, ESAs, bird protection, traffic control, dust control, erosion control, health, and safety plans.

- Features required by a non-project specific permit, such as our statewide NPDES permit and standard Stormwater BMPs.

Alternative 2 would provide new sidewalks and protected bicycle lanes along a segment of SR-1/Lincoln Boulevard extending south from Fiji Way to Jefferson Boulevard and Culver Boulevard extending over the Culver Boulevard overpass. The inclusion of new sidewalks and bicycle lanes would be in addition to the 1.74 percent reduction in VMT by the year 2030 and a 4.74 percent reduction of VMT by the year 2050 that would result from simply reducing the southbound bottleneck on SR-1/Lincoln Boulevard that leads some motorists to make more circuitous but more length vehicular trips. In addition, Alternative 2 would reduce VMT in the local Project area compared to Alternative 1. This reduction in VMT would result in long-term reductions in criteria air pollutants and GHG emissions.

The PDT has incorporated applicable measures from the Caltrans GHG Reduction Measures Toolbox into the design for Alternative 2 as appropriate. These measures include:

- Limiting truck idling during construction;
- Maintaining construction equipment throughout the construction process for fuel efficiency purposes;
- Minimizing disturbance of existing vegetation during construction;
- Installing water-efficient landscaping;
- Improving energy efficiency through reductions in VMT;
- Raising the elevation of the roadway to accommodate sea-level rise; and
- Creating an interconnected transportation system that allows a shift in travel from private passenger vehicles to alternative modes, including public transit, ride sharing, car sharing, bicycling, and walking.

Climate Adaptation

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Furthermore, the combined effects of transportation projects and climate stressors can exacerbate the impacts of both on vulnerable communities in a project area. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

Federal Efforts at Climate Adaptation

Under NEPA Assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The Fifth National Climate Assessment, published in 2023, presents the most recent science and "analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; [It] analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years … to support informed decision-making across the United States." Building on previous assessments, it continues to advance "an inclusive, diverse, and sustained process for assessing and communicating scientific knowledge on the impacts, risks, and vulnerabilities associated with a changing global climate" (U.S. Global Change Research Program 2023a).

The U.S. Department of Transportation recognizes the transportation sector's major contribution of GHGs that cause climate change and has made climate action one of the department's top priorities (U.S. DOT 2023a). FHWA's policy is to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2022a).

The National Oceanic and Atmospheric Administration provides sea level rise projections for all U.S. coastal waters to help communities and decision makers assess their risk from sea level rise. Updated projections through 2150 were released in 2022 in a report and online tool (NOAA 2022a).

State Efforts at Climate Adaptation

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

California's Fourth Climate Change Assessment (Fourth Assessment) (2018) provides information to help decision makers across sectors and at state, regional, and local scales protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The Fourth Assessment reported that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience an up to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures; a two-thirds decline in water supply from snowpack resulting in water shortages; a 77% increase in average area burned by wildfire; and large-scale erosion of up to 67% of Southern California beaches due to sea level rise. These effects will have profound impacts on infrastructure, agriculture, energy demand, natural systems, communities, and public health (State of California 2018a).

Sea level rise is a particular concern for transportation infrastructure in the coastal zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

To help actors throughout the state address the findings of California's Fourth Climate Change Assessment, AB 2800's multidisciplinary Climate-Safe Infrastructure Working Group published Paying it Forward: The Path Toward Climate-Safe Infrastructure in California. This report provides guidance on assessing risk in the face of inherent uncertainties still posed by the best available climate change science. It also examines how state agencies can use infrastructure planning, design, and implementation processes to respond to the observed and anticipated climate change impacts (Climate-Safe Infrastructure Working Group 2018a).

EO S-13-08, issued in 2008, directed state agencies to consider sea level rise scenarios for 2050 and 2100 during planning to assess project vulnerabilities, reduce risks, and increase resilience to sea level rise. It gave rise to the 2009 California Climate Adaptation Strategy, the Safeguarding California Plan, and a series of technical reports on statewide sea level rise projections and risks, including the State of California Sea-Level Rise Guidance Update in 2018. The reports addressed the full range of climate change impacts and recommended adaptation strategies. The current California Climate Adaptation Strategy incorporates key elements of the latest sector-specific plans such as the Natural and Working Lands Climate Smart Strategy, Wildfire and Forest Resilience Action Plan, Water Resilience Portfolio, and the CAPTI (described above). Priorities in the 2023 California Climate Adaptation Strategy include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, implementing nature-based climate solutions, using best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2023a).

EO B-30-15 recognizes that effects of climate change threaten California’s infrastructure and requires state agencies to factor climate change into all planning and investment decisions. Under this EO, the Office of Planning and Research published Planning and Investing for a Resilient California: A Guidebook for State Agencies, to encourage a uniform and systematic approach to building resilience.

SB 1 Coastal Resources: Sea Level Rise (Atkins 2021a) established statewide goals to “anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise within the coastal zone.” As the legislation directed, the Ocean Protection Council (OPC) collaborated with 17 state planning and coastal management agencies to develop the State Agency Sea-Level Rise Action Plan for California in February 2022. This plan promotes coordinated actions by state agencies to enhance California's resilience to the impacts of sea level rise (OPC 2022a).

Caltrans Climate Adaptation Efforts

Caltrans Vulnerability Assessments

Caltrans completed climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea level rise.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

Caltrans Sustainability Programs

The Director’s Office of Equity, Sustainability and Tribal Affairs supports implementation of sustainable practices at Caltrans. The Sustainability Roadmap is a periodic progress report and plan for meeting the Governor’s sustainability goals related to EOs B-16-12, B-18-12, and B-30-15. The Roadmap includes designing new buildings for climate change resilience and zero-net energy and replacing fleet vehicles with zero-emission vehicles (Caltrans 2023).

Summary of Project Climate Adaptation Efforts

This section of the chapter contains a summary of the ongoing adaptation efforts that have taken part for the overall Project and development of Alternative 2. The purpose of a project adaptation analysis is to demonstrate how Alternative 2 would be adapted or resilient to climate change effects. Executive Order (EO) B-30-15 requires that all projects consider future climate conditions in the planning and design decisions.

Sea Level Rise

A Sea Level Rise Report was prepared for the Project in 2023. The SR-1/Lincoln Boulevard Bridge has been designed to accommodate projected Sea Level Rise. The new bridge structure is being designed with a height that has been specified based on conservative sea level rise scenarios using the latest scientific guidance. More information on this topic is provided in Chapter 2.2.1, Hydrology and Floodplain. In summary, the design of Alternative 2 has accounted for potential sea level rise.

Precipitation and Flooding

Changes in precipitation scenarios under future climate conditions include more-extreme precipitation events and more precipitation falling as rain than snow, depending on geographic location. These factors and others, such as land use changes that increase impervious surface in the watershed, can affect flood magnitude and frequency. These variables along with the risk of changed precipitation patterns under climate change to the SR-1/Lincoln Boulevard Bridge over Ballona Creek was evaluated in the Project’s Sea Level Rise Report. The new bridge structure is being designed with a height that has been specified based on conservative sea level rise scenarios using the latest scientific guidance.

Wildfire

As detailed in the wildfire section of Chapter 3, California Environmental Quality Act Evaluation, the project site is not located within a fire zone; however, the LAFD identifies areas south of Jefferson Boulevard as being within a fire zone (LAFD 2023a). In existing conditions, the project site is mostly surrounded by the BWER, which has a mix of native and non-native vegetation that could catch fire. Alternative 2 would construct two replacement bridge structures, and would realign, reprofile, and reconstruct a wider Lincoln Boulevard and Culver Boulevard. These structures and the people who travel along them would be exposed to wildfire risks as they are in existing conditions. However, the structures would be set back from vegetated areas by sidewalks which would minimize risk to any of these concrete structures which are already fire-resistant. There is potential that guardrails, roadway signage with wooden posts, and similar aspects of the roadway could be burnt during such an event. It is assumed that utility poles for new/relocated lighting and overhead power lines would be fire-resistant, which would minimize risks of these facilities being affected during a fire. In the event of a fire, it is assumed that travelers along Lincoln Boulevard would head north towards Fiji Way or south towards Jefferson Way away from the fire event. Therefore, potential future wildfire events have been considered in the evaluation of this Project and effects have been minimized through project design.

Temperature

In the process of designing a roadway improvement, temperature affects choice of pavement materials, design of foundations and retaining walls in terms of ground moisture conditions, and need for expansion/contraction of bridge joints. During operations and maintenance, higher temperatures affect safety of employees working outdoors, survival of landscaping and vegetation in right-of-way, and pavement condition, which could require more frequent maintenance.

The District Climate Change Vulnerability Assessment does not indicate temperature changes during the project’s design life that would require adaptive changes in pavement design or maintenance practices.

Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are applicable to this resource topic.

Chapter 4 Comments and Coordination

Coordination with several stakeholders has occurred throughout the development of this Project. A summary of contacts with key stakeholders is described below.

CEQA EIR Scoping Process

As part of the EIR process, a Notice of Preparation (NOP) was released on March 15, 2018, beginning a 30-day public scoping period for the EIR which lasted from March 15, 2018 through April 16, 2018. During the scoping period, the City and Caltrans held a scoping meeting on March 28, 2018. The purpose of the scoping process was for the City and Caltrans to receive input on the environmental issues that should be addressed in the EIR. Outreach activities conducted during and prior to the scoping period are summarized below and are discussed in greater detail in the Scoping Summary Report, which is provided within Appendix D of this Draft EIR/EA (Psomas 2018a).

General Public Noticing

- Newspaper advertisements about the project proposal and scoping meeting were placed in the Los Angeles Times on March 15, 2018, and the Argonaut on March 15, 2018.
- Notices about the Project and announcing the public scoping meeting were sent to approximately 3,200 addresses on March 15, 2018. The mailing included residents and property owners within a half-mile radius of the project site.
- A project website was set up that was available during the scoping period (http://www.dot.ca.gov/d7/projects/1/1-lincoln.html). The website included the scoping meeting materials and project information.

Elected Officials, Agencies, and Local Interest Group Noticing

Scoping letters were sent on March 15, 2018, to appropriate federal, State, and local elected officials; agencies; and local interest groups notifying them about the Project and the planned public scoping meeting.

Scoping Meeting

The meeting was held in the community on March 28, 2018, from 6:00 PM–8:00 PM, at the Westchester Community Center, 7166 West Manchester Avenue, Los Angeles, California 90045. Around 58 people attended the meeting, including local elected officials/representatives and local media sources.[49] The meeting included a viewing session of the project maps and exhibits, a power point presentation, and the opportunity for attendees to provide verbal comments and ask questions. Caltrans, City, and consulting staff members were available to answer and collect questions related to the project proposal and to provide contact information for future notification and in project updates.

Scoping Comments

A total of 52 written comments were received from various governmental agencies, businesses, local organizations, and members of the public during the scoping period.

Project Development Team Meetings

The Project Development Team (PDT) held regular meetings to discuss the status of the Project, including pending technical studies/submittals, the project schedule, and other key topics. PDT meetings included staff from Caltrans, Los Angeles Department of Transportation (LADOT), and Psomas. PDT meetings occurred as needed from 2018 through 2020. From 2021 to 2023, the meetings were held regularly on a monthly basis.

Coordination With Key Stakeholders

City Council Briefings

Focused meetings were held with staff from former council member Mike Bonin's office between 2018 and 2021. Thereafter, focused meetings were held with staff from council member Traci Park's office between 2022 and 2024.

California Department of Fish and Wildlife

A comment letter was received from the CDFW during the scoping period in response to the NOP on April 17, 2018.

In June 2021, emails were exchanged between the PDT and Richard Brody at CDFW and phone calls occurred to discuss biological technical studies that were being undertaken for the Project.

In addition to telephone and e-mail correspondence, a formal meeting occurred between the PDT and staff from CDFW on August 30, 2021. Thereafter, additional focused meetings occurred with the PDT and staff from CDFW and California Coastal Commission on November 10, 2022, and March 22, 2023. From November 2022 through March 2023, additional correspondence occurred between members of the PDT and Erika Cleugh at CDFW in which the PDT provided

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49 Twenty-five people signed in the scoping meeting; however, based on a count of the people at the meeting, 58 people attended the scoping meeting.

Ms. Cleugh with additional information related to partial right-of-way acquisition areas under Alternatives 2, 2A, 2B, 2C, and 2D, and proposed exchange lands that were being offered for consideration. Attendees at one or more of these meetings from CDFW included: Richard Brody, Erika Cleugh, Erinn Wilson-Olgin, Tim Dillingham, and Victoria Tang. Key topics discussed during these meetings included:

- Discussing ways to ensure consistency between the Project and the Ballona Wetlands Restoration Project including pedestrian connections;
- Discussing approaches to landscaping of temporarily disturbed areas in the BWER;
- Discussing proposed right-of-way acquisition and land exchange opportunities; and
- Discussing CDFW's process for abandoning/exchanging lands that are within an ecological reserve.

Between January and March 2024, staff from Psomas coordinated with Richardy Brody at CDFW to obtain access to areas of the BWER within and adjacent to the project site for updated focused biological surveys in spring and summer 2024. Coordination will continue until surveys are completed in later summer 2024. Copies of all survey reports for surveys conducted in 2024 will be sent to CDFW staff for their records.

In February 2024, Psomas sent the Natural Environment Study (NES) for this Project to CDFW and California Coastal Commission staff for review. In prior meetings, CDFW and California Coastal Commission staff had requested the NES as soon as a draft was available to be shared.

California Coastal Commission

A comment letter was received from California Coastal Commission on May 21, 2018.

As noted above, meetings regarding the Project between the PDT and staff from the California Coastal Commission occurred on November 10, 2022, and March 22, 2023, which included CDFW.

In addition, emails were exchanged between members of the PDT and California Coastal Commission staff during 2022 and 2023 in which the PDT provided staff with information on the Project and to facilitate an early review of the California Coastal Act consistency analysis that is contained within Chapter 2.1.3, Coastal Zone, of this Draft EIR/EA. Attendees at one or more of these meetings from the California Coastal Commission included: Shannon Fiala, Jordan Sanchez, Zach Rehm, and Tami Grove. The concept of a land exchange and mapping of proposed locations was also shared with Coastal Commission staff.

In February 2024, Psomas sent the Natural Environment Study (NES) for this Project to CDFW and California Coastal Commission staff for review. In prior meetings, CDFW and California Coastal Commission staff had requested the NES as soon as a draft was available to be shared.

U.S. Army Corps of Engineers

Staff from U.S. Army Corps of Engineers attended a meeting with staff from CDFW and California Coastal Commission on March 22, 2023. Corps staff also provided a follow-up email confirming jurisdiction pursuant to Sections 404 and 408 of the Clean Water Act. USACE staff that attended this meeting included Lia Protopapadakis, Veronica Li, and Aaron Allen.

Los Angeles County Department of Beaches and Harbors

Staff from the Los Angeles County Department of Beaches and Harbors filled out a comment card on March 28, 2018, and submitted a formal comment letter on April 5, 2018, during the scoping period for this Project.

In October 2022, members of the PDT exchanged emails with staff at the Los Angeles County Department of Beaches and Harbors, including Gary Jones, Steve Penn, Amir Tadros, and Susana Graether, to introduce the Project and to begin discussions regarding partial right-of-way acquisitions needed from the Fiji Gateway Park to construct a new sidewalk at this location.

Los Angeles County Public Works

Members of the PDT reached out to and corresponded with staff at Los Angeles County Public Works to discuss the Project as well as potential temporary detours of the Ballona Creek Bike Path that would be required under Alternatives 2, 2A, 2B, 2C, and 2D. Los Angeles County Public Works has jurisdiction over portions of the Ballona Creek Bike Path that are west of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek. Details on the preliminary detour of the bike path including a signalized crosswalk location were shared with staff. Staff that were copied on the correspondence included Matt Suska, Eden Berhan, Masashi Tsujii, and John Burton.

City of Los Angeles Department of Transportation Bikeways Unit

Members of the PDT reached out to and corresponded with staff at LADOT's Bikeway Unit to discuss the Project as well as potential temporary detours of the Ballona Creek Bike Path that would be required under Alternatives 2, 2A, 2B, 2C, and 2D. LADOT has jurisdiction over portions of the Ballona Creek Bike Path that are east of the existing SR-1/Lincoln Boulevard Bridge over Ballona Creek. Details on the preliminary detour of the bike path including a signalized crosswalk location were shared with staff. Staff that were copied on the correspondence included Christabelle Alacar and Edward Giron.

<u>Transportation Conformity Working Group (TCWG)</u>

On August 27, 2019, the State Route 1 (SR-1/Lincoln Boulevard) Multimodal Improvements Project was considered at the Transportation Conformity Working Group (TCWG). At that meeting, the TCWG concurred that the Project is not a project of air quality concern (POAQC). Because the Project is classified as not being a POAQC, in accordance with the March 2006 EPA/FHWA guidance document, a quantitative PM hot-spot analysis is not required. In March 2024, an updated PM Hot Spot Form along with updated traffic data for the Project was provided to TCWG. During their March 26, 2024 meeting, the TCWG reaffirmed that the Project is not a POAQC.

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Chapter 5 List of Preparers

The following Department staff, City staff, and consultants contributed to the preparation of this Draft EIR/EA.

Caltrans

Mariam Dahdul. Associate Environmental Planner/Archaeologist. Caltrans. Contribution: Reviewer of Historic Property Survey Report, Archaeological Survey Report (ASR),and all cultural sections of the Draft EIR/EA. Coordinated with tribal representative pursuant to Assembly Bill 52.

Joshua Knudson. Associate Environmental Planner (Architectural History), PQS Principal Architectural Historian. Caltrans, District 7. Contribution: Reviewer of Historic Resource Evaluation Report and Historic Property Survey Report, and historic-related sections of the Draft EIR/EA.

Celina Oliveri. District Biologist. Caltrans, District 7. Contribution: Reviewer of Natural Environment Study and biological resource-related sections of the Draft EIR/EA.

Paul Caron, Senior District Biologist. B.S. Biology, California State University Polytechnic University San Luis Obispo; 31 years of experience in biological surveys, biological technical reports and ecological restoration; 18 of those years as a supervising biologist. Contribution: review and approval of biological technical reports.

Kelly Ewing-Toledo, Deputy District Director Environmental Planning. M.A. History/Public History, California State University Fullerton; 23 years of experience in environmental planning. Contribution: Approve circulation of Draft Environmental Impact Report/Environmental Assessment.

Karl Price. Senior Environmental Scientist. Caltrans, District 7. Contribution: Environmental project management, preparation and review of the Draft EIR/EA.

Rocky Rojas. Environmental Scientist. Caltrans, District 7, Division of Environmental Planning. Contribution: Environmental project management, preparation and review of environmental document

Andrew Yoon. Senior Transportation Engineer, Air Quality. Caltrans, District 7, Division of Environmental Planning. Contribution: Review of air quality technical analysis.

Jin Lee. Branch Chief, Noise and Vibration. Contribution: Review of noise and vibration technical analysis.

Samer Momani. Associate Environmental Planner. Caltrans, District 7, Division of Environmental Planning. Contribution: NEPA Quality Control reviewer and document editing.

Stewart Fong, Transportation Engineer. B.S., California State University Northridge; 25 years experience in plan review and hazardous waste analysis. Contribution: Review hazardous waste technical analysis.

George Olguin. Landscape Architect. Caltrans, District 7, Office of Stormwater and Landscape Architecture. Contribution: Visual aesthetics technical review.

City of Los Angeles

Robert Sanchez. Senior Transportation Engineer. Los Angeles Department of Transportation. Contribution: Project Manager for LADOT.

Psomas

Tin Cheung. Director of Air Quality, Climate Change, and Noise Services. Contribution: Prepared and/or peer reviewed air quality, greenhouse gas, energy, and noise sections.

Charles Cisneros, RPA. Senior Archaeologist. Contribution: Preparer of Historic Property Survey Report, Archaeological Survey Report, Extended Phase I Report, and Post-Review Discovery Report. Reviewed preparation of cultural and paleontological resource sections of the Draft EIR/EA.

Paul Gervacio. Senior Project Manager. Contribution: Project Engineer.

Tim Hayes. Vice President, Engineering. Contribution: Engineering Project Manager.

Charles Holcombe. Vice President. Contribution: QA/QC Manager; conducted peer review for the Draft EIR/EA.

Sheryl Kristal. Senior Word Processor. Contribution: Word processed the Draft EIR/EA and technical studies prepared by the Psomas environmental team.

Jim McPherson. GIS Manager. Contribution: Led preparation of graphics for the Draft EIR/EA.

Sean Noonan. Project Manager. Contribution: Lead preparer of the Draft EIR/EA; lead for coordination with California Coastal Commission, California Department of Fish and Wildlife, and other resource agencies; and served as overall Environmental Project Manager.

Steve Norton. Senior Biologist. Contribution: Prepared the Natural Environment Study and provided support regarding biological resources.

Danae Overman. Technical Editor. Contribution: Technical edited the Draft EIR/EA and technical studies prepared by the Psomas environmental team.

Gary Warkentin. Senior Project Manager. Contribution: Project Engineer.

Jordan Werkmeister. Environmental Planner. Contribution: Prepared sections of the Draft EIR/EA.

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Mayor Karen Bass	200 N. Spring Street		Los Angeles	CA	90012
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Councilmember Gloria Gray - District 1	1 Manchester Boulevard		Inglewood	CA	90301
Councilmember Dionne Faulk - District 4	1 Manchester Boulevard		Inglewood	CA	90301
Councilmember Eloy Morales, Jr. - District 3	1 Manchester Boulevard		Inglewood	CA	90301
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Barry	Kurtz
Gladys	Happer
Kathy	Knight
Joe	Guglielmo
Wayne	Ferrandino
Kaja	Fehr
Doreen	McNamara
Brent	Reznik
Chuy	Orozco
Robert	Sanchez
Eric	Bierce
John	Lindsay
Ben	Gatenyo
Sandra	Parrinelli
Kevin	Brandon

Scoping Meeting Attendees	**(addresses of these individuals have been withheld for confidentiality purposes)**
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Rex	Frankel
Grace	Khalifa
Carol	Garrey
Kent	Strumpell
Ken	Lee
Georgia	Ford
Davis and Maggie	Parkhurst
Richard	Brody
Clifford	Stein
Larry Steven	Londre
John	Cataldo
Helen	Coyne-Hoerle
Doug	Hoerle
Zach	Rehm
James	Murez
Barry	Kurtz
Gladys	Happer
Kathy	Knight
Patricia	McPherson
Patti	Londre
Joe	Guglielmo
Wayne	Ferrandino
Kaja	Fehr
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Doreen	McNamara
Brent	Reznik

Scoping Meeting Attendees	**(addresses of these individuals have been withheld for confidentiality purposes)**
Chuy	Orozco
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Ron	Rader
Eric	Bierce
John	Lindsay
Ben	Gatenyo
Sandra	Parrinelli
Kevin	Brandon
Jeffrey	Karr
Rex	Frankel
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Carol	Garrey
Kent	Strumpell
Eva	Chang
Ben	Buffandeau
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Georgia	Ford
Davis and Maggie	Parkhurst
Brody	
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Larry Steven	Londre
John	Cataldo
Helen	Coyne-Hoerle
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Zach	Rehm

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J. Marc	Huffman	Brookfield Residential
Dawn	Suskin	Playa Vista Parks and Landscape Corporation
N/A	N/A	Del Rey Residents Association

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Chapter 7 References

American Society of Civil Engineers. 2023a. SCE Tsunami Design Geodatabase Version 2022-1.0 of geocoded reference points of Offshore Tsunami Amplitude and Period, and Runup Elevation and associated Inundation Limit of the Tsunami Design Zone. Reston, Virginia: ASCE. https://asce7tsunami.online/

Barnes, L. G., and E. D. Mitchell. 1975a. Late Cenozoic northeast Pacific Phocidae. Rapports et Proces-Verbaux des Reunions, Conseil Interational pour l'Exploration de la Mer (Volume 169, pp. 34-24).

California Air Resources Board. 2017a. Emission Factors (EMFAC). Sacramento, CA: CARB. https://arb.ca.gov/emfac/

———. 2008a. California Ambient Air Quality Standards. Sacramento, CA: CARB. https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf

California, State of. 2023a. California Code of Regulations (CCR). Sacramento, CA: State of California. https://oal.ca.gov/publications/ccr/

California Building Standards Commission. 2022a. California Green Building Standards Code. Sacramento, CA: CBSC. http://www.bsc.ca.gov/Home/CALGreen.aspx.

California Department of Conservation. 2023a. Farmland Mapping and Monitoring Program (FMMP) Mapper. Sacramento, CA: DOC. https://maps.conservation.ca.gov/dlrp/ciff/

———. 2023b. Reported California Landslide Database. Sacramento, CA: DOC. https://www.conservation.ca.gov/cgs/landslides

———. 2023c. Geologic Hazards Map. Sacramento, CA: DOC. https://maps.conservation.ca.gov/geologichazards/

———.2023d. WellFinder, CalGEMGIS. Sacramento, CA: DOC. https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx

———. 2023e. CGS Information Warehouse: Tsunami Hazard Area Map. Sacramento, CA: DOC. https://maps.conservation.ca.gov/cgs/informationwarehouse/ts_evacuation/?extent=-13249590.3641%2C3986280.7635%2C-

13132183.0887%2C4038410.8168%2C102100&utm_source=cgs+active&utm_content=losangeles

———. 2023f. Fault Activity Map of California Mapper. Sacramento, CA: DOC. https://maps.conservation.ca.gov/cgs/fam/

———.2015a. FAQ About Tsunami. Sacramento, CA: DOC. https://www.smcgov.org/media/127171/download?inline=

California Department of Fish and Wildlife. 2024a. Ballona Wetlands Restoration Project Status Website. San Diego, CA: CDFW. https://wildlife.ca.gov/Regions/5/Ballona-EIR

———. 2022a. Ballona Wetlands Restoration Project FAQs. San Diego, CA: CDFW. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=186250&inline

———. 2022b. Initial Sequencing Information. San Diego, CA: CDFW. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=202717&inline

———. 2022c. Summary of the Approved Project. San Diego, CA: CDFW. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=186251&inline

———. 2019a. Final Environmental Impact Report. San Diego, CA: CDFW. https://wildlife.ca.gov/Regions/5/Ballona-EIR

———. 2019b. Places to Visit, Ecological Reserves and Wildlife Areas in California. Sacramento, CA: CFDW. https://www.wildlife.ca.gov/lands/places-to-visit

———. 2017a. Draft Environmental Impact Statement/Environmental Impact Report. San Diego, CA: CDFW. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=149710&inline

California Department of Parks and Recreation. 2022a. Land and Water Conservation Fund. Sacramento, CA: California Department of Parks and Conservation.

California Department of Transportation. 2024a. Air Quality Report. Los Angeles, CA: Caltrans.

———. 2023a. Standard Environmental Reference (SER). Sacramento, CA: Caltrans. https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser

———. 2023b. California State Scenic Highways Map. Sacramento, CA: Caltrans. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

———. 2023c. Historic Property Survey Report (HPSR). Los Angeles, CA: Caltrans.

———. 2023d. Archaeological Survey Report (ASR). Los Angeles, CA: Caltrans.

———. 2023e. Historical Resources Evaluation Report (HRER). Los Angeles, CA: Caltrans.

———. 2023f. Extended Phase I (XPI). Los Angeles, CA: Caltrans.

———. 2023g. Post-Review & Discovery Plan (PRDP). Los Angeles, CA: Caltrans.

———. 2022a. 2022 Standard Plans. Sacramento, CA: Caltrans. https://dot.ca.gov/-/media/dot-media/programs/design/documents/locked-2022-std-plans-a11y.pdf

———. 2022b. 2022 Standard Specifications. Sacramento, CA: Caltrans. https://dot.ca.gov/-/media/dot-media/programs/design/documents/2022_stdspecs-a11y.pdf

———. 2021a. Noise Study Report. Los Angeles, CA: Caltrans.

———. 2020a. Traffic Noise Analysis Protocol, For New Highway, Construction, Reconstruction, and Retrofit Barrier Projects. Sacramento, CA: Caltrans. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/traffic-noise-protocol-april-2020-a11y.pdf

———. 2016a. Technical Guidance for Assessment and Mitigation of the Effects of Traffic Noise and Road Construction Noise on Birds. Sacramento, CA: Caltrans. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/noise-effects-on-birds-jun-2016-a11y.pdf

———. 2015a. Highway Design Manuel: Bicycle Transportation Design. Sacramento, CA. https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp1000.pdf

———. 2013a. Technical Noise Supplement to the Traffic Noise Analysis Protocol. Sacramento, CA: Caltrans. http://docs.ppsmixeduse.com/ppp/DEIR_References/2013_0901_caltrans_technicalnoisesupplement.pdf

———. 2011a. Standard Environmental Reference, Environmental Handbook, Volume 4, Community Impact Assessment. Sacramento, CA: Caltrans. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/f0008751-vol4-entire-a11y.pdf

———. 2001a. Draft Project Report for the State Hwy. Route 1 Widening from Jefferson Blvd to Fiji Way; Construction of New Bridge over Ballona Creek and Replacement of the Culver Boulevard Overcrossing. Los Angeles, CA: Caltrans.

———. 2001b. Draft Initial Study/Environmental Assessment for the State Hwy. Route 1 Widening from Jefferson Blvd to Fiji Way; Construction of New Bridge over Ballona Creek and Replacement of the Culver Boulevard Overcrossing. Los Angeles, CA: Caltrans. https://ceqanet.opr.ca.gov/Project/2000121126

California Department of Water Resources. 2018a. California Water Plan. Sacramento, CA: DWR. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2018/Final/California-Water-Plan-Update-2018.pdf

California Division of Mines & Geology (CDMG) and U.S. Geological Survey (USGS). 1996a. Probabilistic Seismic Hazard Assessment for the State of California. CDMG Open-File Report 96-08 and USGS Open File Report 96-706. https://www.conservation.ca.gov/cgs/psha

California Energy Commission (CEC). 2022a. 2019 Building Energy Efficiency Standards. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency

California Geological Survey. 2008a. Special Publication 117A: Guidelines for evaluating and mitigation seismic hazards in California. Sacramento, CA: CGS. https://www.conservation.ca.gov/cgs/Documents/Publications/Special-Publications/SP_117a.pdf

California State Water Board. 2018a. California 2018 Integrated Report, web mapper. Sacramento, CA: State Water Board. https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report/2018IR_map.html

CalRecycle. 2023a. SWIS Facility/Site Activity Details, Sunshine Canyon Landfill (19-AA-2000). Sacramento, CA: CalRecycle. https://www.calrecycle.ca.gov/SolidWaste/Site/Details/4702

———. 2023b. SWIS Facility/Site Activity Details, Calabas Landfill (19-AA-0056). Sacramento, CA: CalRecycle. https://www.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3579?siteID=1041

———. 2023c. SWIS Facility/Site Activity Details, Chiquita Canyon Landfill (19-AA-0052). Sacramento, CA: CalRecycle. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3579?siteID=1041

Ciolek-Torello, R., Homburg, J., Seetha, R., Douglass, J., and Grenda, D. 2013a. Living in the Ballona Wetlands of the Southern California Coast: Paleoenvironmental Reconstruction and Human Settlement. Journal of Wetland Archaeology (Volume 13, No. 1, pp. 1-28).

CNS Engineers. 2022a. Advance Planning Study Design Memo, Lincoln Boulevard Bridge Over Ballona Creek Replacement. Riverside, CA: CNS. Included within the Draft Project Report, which is provided as Appendix F of this Draft EIR/EA.

———. 2022b. Advance Planning Study Design Memo, Culver Boulevard Overcrossing Replacement. Riverside, CA: CNS. Included within the Draft Project Report, which is provided as Appendix F of this Draft EIR/EA.

Culver Marina Little League. 2024a. Official Site of the Culver Marina Little League. Marina Del Rey, CA: Culver Marina Little League. http://www.culvermarinalittleleague.com/Default.aspx?tabid=471419

Digital Map Products. 2023a. LandVision - Real Estate Mapping Software. Irvine, CA: Digital Map Products. https://login.digitalmapcentral.com/MemberPages/Login.aspx?ReturnUrl=%2fmemberpages%2fdefault.aspx%3fma%3dPsomas&ma=Psomas

Entech. 2023a. Noise Study Report. Temecula, CA: Entech. Provided as Appendix R of this Draft EIR/EA.

Federal Highway Administration. 2021a. 2020 Urbanized Area Summaries; Length and Daily Vehicle-Miles of Travel. Washington, D.C.: FHWA. https://www.fhwa.dot.gov/policyinformation/statistics/2020/pdf/hm71.pdf

———. 2019a. 2018 Urbanized Area Summaries: Length and Daily Vehicle-Miles of Travel. Washington, D.C.: FHWA. https://www.fhwa.dot.gov/policyinformation/statistics/2018/pdf/hm71.pdf

———. 2015a. 2015 Status of the Nation’s Highways, Bridges, and Transit: Conditions & Performance: Pedestrian and Bicycle Transportation. Chapter 11. Washington, D.C.: FHWA. https://www.fhwa.dot.gov/policy/2015cpr/chap11.cfm#_Toc446493394

———. 2012a. Evaluating Scour at Bridges. Fifth Edition. Washington, D.C.: FHWA. https://www.fhwa.dot.gov/engineering/hydraulics/pubs/hif12003.pdf

Fehr & Peers. 2023a. Lincoln Bridge Transportation Analysis Report 2023 Update. Los Angeles, CA: Fehr & Peers. Provided as Appendix I of this Draft EIR/EA.

Federal Emergency Management Agency. 2008a. Flood Insurance Rate Map (FIRM) Map Number 06037C1760F. Washington, DC: FEMA. https://www.fema.gov/flood-maps/national-flood-hazard-layer

Federal Transit Administration. 1995a. Transit Noise and Vibration Impact Assessment Manual: First Edition. Washington, D.C.: FTA. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

Green Info Network. 2024a. California Protected Area Database. Sacramento, CA: CPAD. https://www.calands.org/cpad/.

Group Delta. 2022a. Structure Preliminary Geotechnical Report, Lincoln Boulevard Bridge Replacement, Los Angeles, California. Los Angeles, CA: Group Delta. Provided as Appendix M of this Draft EIR/EA.

———. 2022b. Structure Preliminary Geotechnical Report, Culver Boulevard Bridge Replacement, Los Angeles, California. Los Angeles, CA: Group Delta. Provided as Appendix N of this Draft EIR/EA.

———. 2021a. Initial Site Assessment, State Route 1 (Lincoln Boulevard) Multimodal Improvement Project. Los Angeles, CA: Group Delta. Provided as Appendix P of this Draft EIR/EA.

International Code Council. 2021a. 2021 International Building Code. Washington, DC: ICC. https://codes.iccsafe.org/content/IBC2021P2

Los Angeles, City of. 2024a. Zone Information and Map Access System (ZIMAS). Los Angeles, CA: City of Los Angeles. http://zimas.lacity.org/

———. 2023a. Airport Influence Area Mapper. Los Angeles, CA: City of Los Angeles. https://geohub.lacity.org/datasets/lacounty::airport-influence-area-1/explore?location=33.967183%2C-118.427121%2C14.02

———. 2022b. Existing Community Plans Webpage. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/plans-policies/community-plans

———. 2022c. General Plan Updates Webpage. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/plans-policies/general-plan-updates

———. 2022d. City of Los Angeles Municipal Code. Los Angeles, CA: City of Los Angeles. https://codelibrary.amlegal.com/codes/los_angeles/latest/lamc/0-0-0-107363

———. 2022e. Housing Element 2021-2029. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/55fdecf6-e185-4910-b690-2df603093d76/2021-2029_Housing_Element_Book_(Adopted)_-_Low_Res..pdf

———. 2022f. (September 7, date of correspondence). Correspondence between S. Noonan of Psomas and D. Janacua and E. Serrato of the City of Los Angeles.

———. 2022g. (August 31, date of correspondence). Correspondence between S. Noonan of Psomas and B. Sullivan of the City of Los Angeles.

———. 2022h. (September 7, date of correspondence). Correspondence between S. Noonan of Psomas and D. Janacua and E. Serrato of the City of Los Angeles.

———. 2022i. (September 7, date of correspondence). Correspondence between S. Noonan of Psomas B. Sullivan, C. Rafferty, and D. Janacua of the City of Los Angeles.

———. 2022j. Department of Recreation and Parks, Glen Alla Park. Los Angeles, CA: City of. https://www.laparks.org/park/glen-alla

———. 2022k. Facility Map Locator. Los Angeles, CA: City of. https://www.laparks.org/maplocator?cat_id=All&geo[radius]=10&geo[latitude]=33.9802893&geo[longitude]=-118.4517449&address=Marina%20Del%20Rey,%20CA%2090292,%20USA

———. 2021a. General Plan Health Element. Plan For A Healthy Los Angeles. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/2442d4df-34b3-4683-8eb9-b5ea1182782b/Plan_for_a_Healthy_Los_Angeles.pdf

———. 2021b. General Plan Safety Element. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/bf51ae04-1c7b-4931-9a29-d46209998b89/2021_SafetyElementBookFINAL.pdf

———. 2019a. Coastal Transportation Corridor Specific Plan. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/f70a7b90-3613-49ce-a65c-2be4a98c6e8c/ordinance_168104_and_168105.pdf

———. 2019b. Sewer System Management Plan (SSMP). Los Angeles, CA: City of Los Angeles. https://lacitysan.org/cs/groups/public/documents/document/y250/mdm1/~edisp/cnt035427.pdf

———. 2018a. Westside Mobility Plan. Los Angeles, CA: City of Los Angeles.

———. 2018b. Vision Zero – 2018 Action Plan + Progress Report. Los Angeles, CA: City of Los Angeles. https://ladotlivablestreets-cms.org/uploads/d704aa3913e440d5ab4cb91930e902d4.pdf

———. 2018c. Emergency Operations Plan. Los Angeles, CA: City of Los Angeles. https://emergency.lacity.gov/sites/g/files/wph1791/files/2021-04/comprehensive_emergency_operations_plan_eop-_2018.pdf

———. 2018d. City of Los Angeles, 2018 Local Hazard Mitigation Plan. Los Angeles, CA: City of Los Angeles. https://emergency.lacity.gov/sites/g/files/wph1791/files/2021-10/2018_LA_HMP_Final_with_maps_2018-02-09.pdf

———. 2016a. Mobility Plan 2035. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility_Plan_2035.pdf

———. 2015a. Vision Zero Los Angeles – 2015-2025. Los Angeles, CA: City of Los Angeles. https://viewer.joomag.com/vision-zero-los-angeles/0915902001459876247?short

———. 2004a. Westchester – Playa del Rey Community Plan. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/67450916-225a-4a55-97a5-8fa184a7e91d/Westchester-Playa_Del_Rey_Community_Plan.pdf

———. 2004b. Playa Vista Area D Specific Plan. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/c90c4ac0-f690-4e15-abc1-e153a5cd6b07/Playa_Vista_Area_D_Specific_Plan.pdf

———. 2001b. General Plan Conservation Element. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/28af7e21-ffdd-4f26-84e6-dfa967b2a1ee/Conservation_Element.pdf

———. 1999a. Noise Element. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/b49a8631-19b2-4477-8c7f-08b48093cddd/Noise_Element.pdf

———. 1997a. Palms-Mar Vista-Del Rey Community Plan. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/078c8a5f-0984-42b0-833e-b79b2c718299/Palms-Mar_Vista-Del_Rey_Community_Plan.pdf

———. 1992a. Air Quality Element. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/c90c4ac0-f690-4e15-abc1-e153a5cd6b07/Playa_Vista_Area_D_Specific_Plan.pdf

———. 1990a. Playa Vista Area B Specific Plan. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/656d910b-91fd-42c9-a795-33b259fb86bc/Playa%20Vista%20Area%20B%20Specific%20Plan.pdf

———. 1990b. Playa Vista Area C Specific Plan. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/58f371f3-51d2-4436-bcc4-cf5411e576ba/Playa%20Vista%20Area%20C%20Specific%20Plan.pdf

———. 1973a. Open Space Plan (e.g., Open Space Element). Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/01ea5f66-3281-488a-930b-f523712fef07/Open_Space_Element.pdf

———. 1972a. Infrastructure Systems Element. City-Collected Refuse Disposal Plan. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/c9dd48c1-d9ed-4569-a448-74216c30cfe1/Infastructure_Systems.pdf

———. 1969a. Cultural and Historical Monuments Plan (e.g., Public Facilities and Services Element. Los Angeles, CA: City of Los Angeles. https://planning.lacity.org/odocument/43319adf-80e9-4080-8d1d-ed7b3d3e2607/Public%20Facilities.pdf

Los Angeles, City of, County of LA, City of Beverly Hills, City of Culver City, City of Inglewood, City of West Hollywood, City of Santa Monica. 2016a. Enhanced Watershed Management Program for the Ballona Creek Watershed. Prepared for the Ballona Creek Watershed Management Group. https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/ballona_creek/index.html

Los Angeles County. 2024a. GIS-NET Public application. Los Angeles, CA: Los Angeles County. https://planning.lacounty.gov/gisnet

———. 2022a. General Plan 2035. Los Angeles, CA: Los Angeles County. https://planning.lacounty.gov/assets/upl/project/gp_final-general-plan.pdf

———. 2022b. 2045 Climate Action Plan. Los Angeles, CA: Los Angeles County. https://planning.lacounty.gov/site/climate/wp-content/uploads/2022/04/LA_County_2045_CAP_Public_Draft_April_2022.pdf

———. 2022c. Code of Ordinances. Los Angeles, CA: Los Angeles County. https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances

———. 2019a. Department of Beaches and Harbors, Beaches, Bike Path, Things to do at the Beach, Beach Bike Path. Los Angeles, CA: County of. http://beaches.lacounty.gov/la-county-beach-bike-path/

———. 2019b. Step by Step: Pedestrian Plans for Unincorporated Communities. Los Angeles, CA: Los Angeles County. http://ph.lacounty.gov/place/stepbystep/docs/Step%20by%20Step_Adopted_Sept%202019_en.pdf

———. 2019c. Marvin Braude Coastal Bike Trail Map. Los Angeles, CA: County of. http://www.visitmarinadelrey.com/wp-content/uploads/2016/04/bike-map-v2.pdf

———. 2019d. Yvonne B. Burke Park. Los Angeles, CA: County of. https://beaches.lacounty.gov/marina-del-rey-parks/

———. 2019e. Burton Chace Park. Los Angeles, CA: County of. https://beaches.lacounty.gov/burton-chace-park/

———. 2019f. Marina Del Rey Design Control Board Agenda for December 20, 2017. Los Angeles, CA: County of. http://file.lacounty.gov/SDSInter/dbh/docs/1007029_DCBAgendaDEC2017.pdf

———. 2019g. Find a Park. Los Angeles, CA: County of. http://parks.lacounty.gov/#

———. 2012a. Bicycle Master Plan. Los Angeles, CA: Los Angeles County. https://pw.lacounty.gov/tpp/bike/docs/bmp/FINAL%20Bicycle%20Master%20Plan.pdf

———. 2012b Marina Del Rey Specific Plan. Los Angeles, CA: Los Angeles County. https://planning.lacounty.gov/assets/upl/data/pd_sp_marinadelrey.pdf

———. 2012c. Marina Del Rey Land Use Plan. Los Angeles, CA: Los Angeles County. https://planning.lacounty.gov/view/marina_del_rey_land_use_plan

———. 2012d. Operational Area Emergency Response Plan. Los Angeles, CA: Los Angeles County. https://ceo.lacounty.gov/emergencydisaster-plans-and-annexes/

———. 1997a. Countywide Integrated Waste Management Summary Plan. Los Angeles, CA: Los Angeles County Department of Public Works. https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=93&hp=yes&type=PDF

Los Angeles County Assessor. 2024a. Property Assessment Information System. Los Angeles, CA: Los Angeles County Assessor. https://maps.assessor.lacounty.gov/m/

Los Angeles County Department of Beaches and Harbors. 2023a. Marina Del Rey Developments (website). Los Angeles, CA: Los Angeles County. https://beaches.lacounty.gov/marina-del-rey-development/#1509743146167-ea3747a7-2d84

Los Angeles County Department of Public Works (LACDPW). 2023a. Marina Del Rey Projects (website). Los Angeles, CA: Los Angeles County Department of Public Works. https://pw.lacounty.gov/pdd/marinadelrey/

———. 2006a. Hydrology Manual. Los Angeles, CA: Los Angeles County. https://dpw.lacounty.gov/wrd/publication/engineering/2006_Hydrology_Manual/2006%20Hydrology%20Manual-Divided.pdf

———. 2017a. 2015 Urban Water Management Plan for Los Angeles County Water Works District 29, Malibu, and the Marina del Rey Water System. Los Angeles, CA: Los Angeles County Department of Public Works. https://dpw.lacounty.gov/wwd/web/Documents/2015%20Urban%20Water%20Managem ent%20Plan%20for%20District%20No.%2029%20and%20the%20Marina%20del%20Rey%20Water%20System.pdf

Los Angeles Department of Transportation. 2023a. Our Projects (web mapper). Los Angeles, CA: LADOT. https://ladotlivablestreets.org/projects?viewMap=true

———. 2023b. Vision Zero, Lincoln Fast Forward (webpage). Los Angeles, CA: LADOT. https://ladotlivablestreets.org/projects/lincoln

Los Angeles Department of Water and Power. 2020a. Urban Water Management Plan 2020. Los Angeles, CA: LADWP. https://www.ladwp.com/cs/groups/ladwp/documents/pdf/mdaw/nzyy/~edisp/opladwpccb762836.pdf

Los Angeles Fire Department. 2023a. Fire Zone Map. Los Angeles, CA: LAFD. https://www.lafd.org/fire-prevention/brush/fire-zone/fire-zone-map

Los Angeles Regional Water Quality Control Board. 1994a. Water Quality Control Plan: Los Angeles Region. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura County. Los Angeles, CA: LARWQCB. https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/

Los Angeles World Airports. 2023a. Recently Completed Projects (website). Los Angeles, CA: LAWA. https://www.lawa.org/transforminglax/projects

Lynn Capouya, Inc. 2019a. Visual Impact Assessment, State Route 1 (Lincoln v) Multimodal Improvement Project. Irvine, CA: Lynn Capouya, Inc. Provided as Appendix J of this Draft EIR/EA.

Malibu, City of. 2023a. General Plan, Chapter 5.0, Health and Safety Element. Malibu, CA: City of Malibu. https://library.qcode.us/lib/malibu_ca/pub/general_plan/item/section_ii

Metro. 2020a. Long Range Transportation Plan. Los Angeles, CA: Metro. https://www.metro.net/about/plans/long-range-transportation-plan/

———. 2020b. Long Range Transportation Plan Technical Document. Los Angeles, CA: Metro. https://www.metro.net/about/plans/long-range-transportation-plan/

———. 2018a. Vision 2028 Plan. Los Angeles, CA: Metro. https://www.metro.net/about/plans/metro-strategic-plan/

———. 2018b. Vision 2028 Plan – Appendices. Los Angeles, CA: Metro. https://www.metro.net/about/plans/metro-strategic-plan

Michael Baker International. 2022a. Lincoln Bridge Multi-Modal Bridge Improvements Hydraulics Study (Hydraulics Study). Santa Ana, CA: MBI. Provided as Appendix L of this Draft EIR/EA.

Mountains Recreation & Conservation Authority. 2019a. Ballona Creek Trail and Bike Path, Park Details. Los Angeles, CA: MRCA. https://mrca.ca.gov/parks/park-listing/ballona-creek-trail-and-bike-path/

National Park Service. 2024a. Interactive Map of NPS Wild and Scenic Rivers. Washington DC: NPS. https://nps.maps.arcgis.com/apps/View/index.html?appid=ff42a57d0aae43c49a88daee0e353142

NETR Online. 2024a. Historic Aerials Viewer. Tempe, Arizona: NETR Online. https://www.historicaerials.com/viewer

National Oceanic and Atmospheric Administration. 2023a. Sea Level Rise Viewer. Washington, DC: NOAA. https://coast.noaa.gov/digitalcoast/tools/slr.html

———. 2023b. Tsunami Hazard Assessment Special Series: Vol. 2 Distant tsunami threats to the ports of Los Angeles and Long Beach, California. Washington, DC: NOAA. https://nctr.pmel.noaa.gov/hazard_assessment_reports/02_LA_LB_CA_3532_web.pdf

———. 2023c. Natural Hazards Viewer. Washington, DC: NOAA. https://www.ncei.noaa.gov/maps/hazards/?layers=0#

Our Coast Our Future. 2023a. Hazard Map. Washington D.C.: Our Coast Our Future. https://ourcoastourfuture.org/hazard-map/

Paleobiology Database Navigator 1.0. http://paleobiodb.org.

Psomas. 2024a. Energy Consumption Calculations based on data from CalEEMod, Offroad, and EMFAC. Pasadena, CA: Psomas. Provided as Appendix Q2 of this Draft EIR/EA.

———. 2024b. Natural Environment Study (NES). Santa Ana, CA: Psomas. Provided as Appendix S of this Draft EIR/EA.

———. 2023a. Draft Project Report (DPR). Santa Ana, CA: Psomas. Provided as Appendix F of this Draft EIR/EA.

———. 2023b. Land Use and Plan Consistency Analysis. Santa Ana, CA: Psomas. Provided in Table 2.1.2.3-1.

———. 2023c. Comparison of previous 2001 project and current project along Lincoln Boulevard. Santa Ana, CA: Psomas. Provided in the Draft EIR/EA as Table 1.6-1.

———. 2023d. Design Standard Decision Document. Los Angeles, CA: Psomas. Provided in Appendix F of this Draft EIR/EA.

———. 2023e. Highway Safety Manual (HSM) Analysis. Los Angeles, CA: Psomas. Provided in Appendix F of this Draft EIR/EA.

———. 2023f. California Coastal Act Consistency Analysis. Santa Ana, CA: Psomas. Provided in Table 2.1.3-1.

———. 2023g. Email correspondence regarding feasibility of the re-use of the existing abutments north of Culver Boulevard. Santa Ana, CA: Psomas.

———. 2023h. Vehicle Miles Traveled (VMT) Calculations for Project Construction Phases. Pasadena, CA: Psomas. Provided as Appendix Q of this Draft EIR/EA.

———. 2019a. Paleontological Identification Report (PIR) and Paleontological Evaluation Report (PER) for the State Route 1 (Lincoln Boulevard) Multimodal Improvement Project. Pasadena, CA: Psomas. Provided as Appendix O of this Draft EIR/EA.

Ocean Protection Council. 2024a. Draft State of California Sea Level Rise Guidance: 2024 Science and Policy Update. Sacramento, CA: OPC. https://opc.ca.gov/2024/01/draft-slr-guidance-2024/

———. 2022a. State Agency Sea-Level Rise Action Plan for California. Sacramento, CA: OPC. https://www.opc.ca.gov/webmaster/_media_library/2022/02/Item-7_Exhibit-A_SLR-Action-Plan-Final.pdf

———. 2018a. State of California Sea-Level Rise Guidance. 2018 Update. Sacramento, CA: OPC. https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf

Santa Monica Basin Groundwater Sustainability Agency. 2022a. Santa Monica Basin Groundwater Sustainability Plan. Santa Monica, CA: Santa Monica Basin Groundwater Sustainability Agency. https://www.santamonica.gov/gsp

Saucedo, G.J., G.H. Greene, M.P. Kennedy, and S.P. Bezore. 2016a. Preliminary Geologic Map of the Long Beach 30' x 60' Quadrangle, California. Version 2.0. https://www.conservation.ca.gov/cgs/Documents/Publications/Regional-Geologic-Maps/Preliminary-RGM/Preliminary-RGM-LongBeach-100k-v2-Pamphlet.pdf

South Coast Air Quality Management District (SCAQMD). 2022. Air Quality and Metoroligical Information System. Subject Top Page: AQMIS 2 - Air Quality and Meteorological Information System. https://www.aqmd.gov/home/air-quality/current-air-quality-data

———. 2021a. Air Quality and Metoroligical Information System. Subject Top Page: AQMIS 2 - Air Quality and Meteorological Information System. https://www.aqmd.gov/home/air-quality/current-air-quality-data

———. 2020a. Air Quality and Metoroligical Information System. Subject Top Page: AQMIS 2 - Air Quality and Meteorological Information System. https://www.aqmd.gov/home/air-quality/current-air-quality-data

———. 2017a. NAAQS and CAAQS Attainment Status for South Coast Air Basin. SCAQMD. Diamond Bar, CA. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf

———. 1993a. CEQA Air Quality Handbook. SCAQMD. Diamond Bar, CA. https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)

Southern California Association of Governments. 2024a. Connect SoCal 2024 – The 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy. Los Angeles, CA: SCAG. https://scag.ca.gov/connect-socal

———. 2024b. Connect SoCal 2024 – Drafts & Documents (webpage). Los Angeles, CA: SCAG. https://scag.ca.gov/drafts-documents

———. 2022a. Federal Transportation Improvements Program (FTIP) website. Los Angeles, CA: SCAG. https://scag.ca.gov/federal-transportation-improvement-program

———. 2022b. Final 2023 Federal Transportation Improvement Program (Fiscal Year 2022/23-2027/28). Los Angeles, CA: SCAG. https://scag.ca.gov/2023-ftip

———. 2020a. Transportation System Project List. Los Angeles, CA: SCAG. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_project-list_0.pdf?1606000813

STV, Fehr & Peers. 2013a. Westside Mobility Plan, Lincoln Bridge Feasibility Study. Los Angeles, CA: STV and Fehr & Peers.

Society of Vertebrate Paleontology (SVP). 2010a. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf

Sylvester, A. G., and Gans, E. O. 2016a. Roadside Geology of Southern California. Mountain Press Publishing Company.

Tehrani. 2015a. Noise Abatement of Rubberized Hot Mix Asphalt: A Brief Review. Washington, DC: Tehrani. https://trid.trb.org/view/1345877

Trail Link. 2022a. Ballona Creek Bike Path Description. Washington, DC: Trail Link. https://www.traillink.com/trail/ballona-creek-bike-path/

University California Los Angeles Recreation. 2023a (June 5, correspondence date). E-mail communication with Z. Abramovitz, Head Coach of Junior Rowing, UCLA Recreation. Los Angeles, CA: UCLA Recreation.

United States Army Corps of Engineers. 2019a. Incorporating seal level change in civil works programs. ER 1100-2-8162. Washington, DC: USACE. https://www.publications.usace.army.mil/Portals/76/Users/182/86/2486/ER_1100-2-8162.pdf?ver=2019-07-

United States Census Bureau. 2020a. ACS 5 Year Estimates Data Profiles. Washington, DC: US Census Bureau. https://data.census.gov/advanced

United States Bureau of Labor Statistics. 2023a. Economy at a Glance, Los Angeles-Long Beach-Glendale, CA. Washington, DC: US Bureau of Labor Statistics. https://www.bls.gov/eag/eag.ca_losangeles_md.htm

United States Fish and Wildlife Service (USFWS). 2019a. National Wildlife Refuge System, Find a Refuge by Zip Code: 90292 and 90094. Washington, DC: USFWS. https://www.fws.gov/refuges/zipCodeLocator/index.cfm

____. 2019b. National Wild and Scenic Rivers System: California. Washington, DC: USFWS. https://www.rivers.gov/contact.php

United States Geological Survey. 2022a. Frequently Asked Questions. Natural Hazards. What is the probability that an earthquake will occur in the Los Angeles Area. Menlo Park, CA: USGS. https://www.usgs.gov/faqs/what-probability-earthquake-will-occur-los-angeles-area-san-francisco-bay-area#:~:text=Los%20Angeles%20area%3A,an%20earthquake%20measuring%20magnitude%207

White House, The. 1997a. Council on Environmental Equality (CEQ) Guidance. Washington, D.C.: CEQ. https://clintonwhitehouse4.archives.gov/media/pdf/EJ.pdf

Willett, G. 1937a. An Upper Pleistocene fauna from the Baldwin Hills, Los Angeles County, California. Transactions of the San Diego Society of Natural History (Volume 8, No. 30, pp. 379-406). https://biostor.org/reference/99046.

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