

**The Old Road Over Castaic Creek Project
County of Los Angeles Department of Public Works
Draft Initial Study/Mitigated Negative Declaration**

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ADL	Aerially deposited lead
ADT	average daily traffic
AQMP	Air Quality Management Plan
BMP	best management practice
BSA	Biological Study Area
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAAQS	California Ambient Air Quality Standards
CA-MUTCD	California Manual on Uniform Traffic Control Devices
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CG	General Commercial
CGS	California Geological Survey
CH ₄	methane
CHRIS	California Historical Resources Information System
CLWA	Castaic Lake Water Agency
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO ₂	carbon dioxide
CRHR	California Register of Historical Resources
CSD	Community Standards District
CUP	Conditional Use Permit
DOC	California Department of Conservation
DOGGR	California Department of Conservation, Division of Oil, Gas, and Geothermal Resources
EIA	Energy Information Association
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FTBMI	Fernandeño Tataviam Band of Mission Indians
GHG	greenhouse gas
GWP	global warming potential
I-5	Interstate 5
IO	Industrial Office
IS/MND	Initial Study/Mitigated Negative Declaration
LACFD	Los Angeles County Fire Department
LACM	Natural History Museum of Los Angeles County
LASD	Los Angeles County Sheriff's Department
LOS	level of service
LST	localized significance threshold
LUST	Leaking Underground Storage Tank

THE OLD ROAD OVER CASTAIC CREEK PROJECT
DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Acronym/Abbreviation	Definition
MND	Mitigated Negative Declaration
MRZ-2	Mineral Resource Zone 2
MS4	Municipal Separate Storm Sewer System
MSL	mean sea level
MT	metric ton
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NES	Natural Environment Study
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NF ₃	nitrogen trifluoride
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O ₃	ozone
OPR	Office of Planning and Research
PCE	Passenger Car Equivalency
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to 10 microns
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
RCEM	Road Construction Emissions Model
RCNM	Roadway Construction Noise Model
ROW	right-of-way
RPW	relatively permanent water
RTP	Regional Transportation Plan
RV	recreational vehicle
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SCV Water	Santa Clarita Valley Water Agency
SEA	Significant Ecological Area
SEATAC	Significant Ecological Areas Technical Advisory Committee
SECA	Special Excavation Criteria Area
SF ₆	sulfur hexafluoride
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SLF	Sacred Lands file
SO ₂	sulfur dioxide
SR	State Route
SRA	Source Receptor Area
SSC	Species of Special Concern
SVP	Society of Vertebrate Paleontology
TAC	Toxic air contaminants
TCP	Traffic Control Plans

Acronym/Abbreviation	Definition
TCR	tribal cultural resource
TNW	traditional navigable water
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compound

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1 Introduction

1.1 Project Overview

The County of Los Angeles Department of Public Works (Public Works) proposes to seismically retrofit The Old Road Over Castaic Creek (project/proposed project), located in the unincorporated community of Val Verde in Los Angeles County. The project site is approximately 0.8 mile north of State Route 126 (SR 126) and immediately west of, and parallel to, Interstate 5 (I-5). The City of Santa Clarita's northwestern boundary is approximately 680 feet south of the project site, at Biscailuz Drive. Public Works is the lead agency for the proposed project under the California Environmental Quality Act (CEQA).

The proposed seismic retrofitting of the existing bridge would bring the bridge into conformance with current seismic standards, specifically the California Department of Transportation (Caltrans) Bridge Design Specifications and Seismic Design Criteria. The project is being proposed by Public Works because the existing bridge's support piles are in an advanced state of cracking and strength decline and, as a result, the bridge is not equipped to withstand significant seismic activity, which is considered a safety hazard.

1.2 California Environmental Quality Act Compliance

CEQA applies to proposed projects initiated by, funded by, or requiring discretionary approvals from state or local government agencies. The proposed project constitutes a project as defined by CEQA (California Public Resources Code, Section 21065). Public Works would implement and operate the proposed project and will therefore act as the CEQA lead agency.

An Initial Study has been prepared by Public Works as the lead agency in accordance with the CEQA Guidelines to evaluate potential environmental effects and to determine whether an Environmental Impact Report, a Negative Declaration, or a Mitigated Negative Declaration (MND) should be prepared for the proposed project. The Initial Study has also been prepared to satisfy CEQA requirements of other agencies that may provide approvals, permits, and/or funding for the proposed project. An MND is prepared for a project when an Initial Study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed Negative Declaration and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur; and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

The Initial Study determined that the implementation of the proposed project could cause some potentially significant impacts on the environment but, as shown in the environmental analysis contained in Section 3 of this document, all of the project's potentially significant impacts would be reduced to less than significant levels through the implementation of mitigation measures. Consequently, the analysis contained herein concludes that an MND is the appropriate document for the proposed project.

This document consists of both the Initial Study for the project and the MND (IS/MND). This IS/MND is composed of four sections. Section 1 provides an introduction to the proposed project, general information about the contents of the IS/MND, information about the lead agency, the project location, and the environmental setting. Section 2

provides a description of the proposed project components, project construction, and operation. Section 3 consists of the CEQA Initial Study checklist, which provides the assessment of potential environmental impacts and the applicability of mitigation measures to reduce potentially significant impacts to a less than significant level. Section 4 provides a list of the lead agency staff and consultants involved in preparing the environmental review for the proposed project. This document also includes several appendices that contain technical resource reports and data related to air quality and greenhouse gas (GHG) emissions, biological resources, cultural resources, hazardous materials, noise, and traffic.

2 Project Description

2.1 Project Background

The Old Road Over Castaic Creek Project would involve the seismic retrofitting of The Old Road Bridge to bring it into conformance with current seismic standards, specifically the Caltrans Bridge Design Specifications and Seismic Design Criteria. The existing bridge is approximately 247 feet long and 35 feet wide. The existing bridge comprises seven spans suspended above Castaic Creek. Under existing conditions, the bridge is supported by 16-inch square, precast reinforced concrete piles. The piles are 35 feet long at the bents and 20 feet long at the abutments. The ground surface elevation of the creek bed at the bridge crossing is at an average elevation of approximately 1,020 feet above mean sea level (MSL). The creek banks are lined with heavy rock. The existing approach embankments are at an approximate surface elevation of 1,035 feet above MSL.

2.2 Project Location

As shown in Figure 1, Project Location, the project is located in the foothills of the Sierra Pelona Mountains in the unincorporated community of Val Verde. The project site is located within Castaic Valley just north of the junction where Castaic Creek merges with the Santa Clara River. The existing bridge crosses Castaic Creek, a seasonal waterway, which runs northeast to southwest in the project area. The project site consists of The Old Road Bridge, portions of the adjacent creek bed and bank, and construction staging areas. The project site, as outlined on Figure 1, is approximately 1.1 acres in size. The closest city to the project site is the City of Santa Clarita, the northern boundary of which lies 680 feet south of the project site.

The project site is 0.8 mile north of SR 126, immediately west of I-5, and approximately 40 miles north of downtown Los Angeles. The portion of I-5 adjacent to project site has four lanes of travel in each direction. Additionally, in the vicinity of the project site, the I-5 has two bridges, which lie parallel to, and east of, the project site. (These bridges also cross Castaic Creek.) SR 126 is a state route that runs between Ventura County and Los Angeles County, generally following the Santa Clara River. It is an eligible state scenic highway (not officially designated), with four lanes of travel in both directions. SR 126 lies 0.8 mile south of, and perpendicular to, The Old Road.

The Old Road is a north-south local connector/frontage road that runs parallel to I-5 and intersects SR 126. It has two lanes of travel in each direction and does not have designated bicycle lanes. There are discontinuous sidewalks along The Old Road to the northwest of the project site, which are primarily associated with nearby commercial/retail uses. Within the project limits, The Old Road has one lane in each direction, demarcated by double yellow striping. These single lanes widen to two lanes approximately 500 feet north and 0.3 mile south of the project site. In the southbound direction there is a two- to three-foot-wide shoulder. No bicycle or pedestrian facilities are available on the bridge. Shoulder areas (paved and covered in gravel) are available in the north and south approaches to the bridge on the west side.

2.3 Surrounding Land Uses

The project site is located in the foothills of the Sierra Pelona Mountains. As shown in Figure 2, Surrounding Land Uses, the surrounding land uses include residential, commercial, parking, vacant land, and institutional uses. The

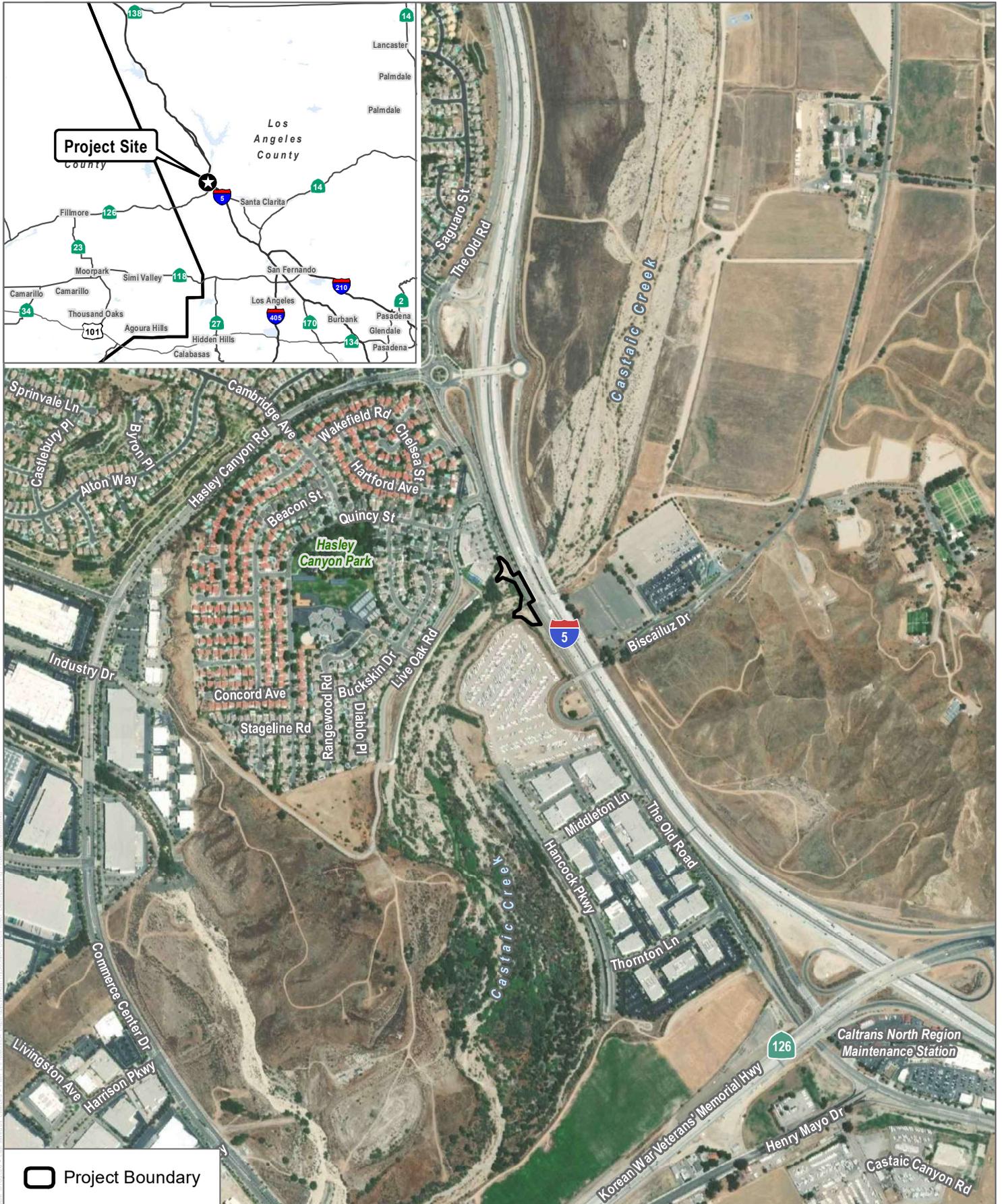
I-5 is located immediately east of the project site and runs parallel to The Old Road in the project area. The North County Correctional Facility is located east of the site, across the I-5. Surface parking and restaurant uses are located northwest of the project site. Vacant land and single-family residential uses are located north and south of the project site. Also to the south of the project site is a recreational vehicle (RV) parking and storage lot, followed by a business park. Hasley Canyon Park and Live Oak Elementary School are located approximately 0.25 mile west of the project site. The amusement park, Six Flags Magic Mountain, is located approximately 4 miles south of the project site. The Sheriff's Wayside Heliport and Pitchess Detention Center are located approximately 2 miles northeast of the project site, and Castaic Lake and Castaic Lake State Recreation Area are located approximately 4.5 miles north of the project site.

2.4 Project Construction

Construction would involve installation of a variety of seismic retrofitting techniques on The Old Road Bridge, which are listed below. These retrofits would result in permanent improvements to the existing structure of the bridge (including its abutments, piers, and footing). New footings would be installed with additional grouting of the soil under the footing; however, the footings would be underground with the top of the footing approximately 4.5 feet below the surface and the bottom of the footing approximately 7 feet below the surface. As such, no permanent impacts would occur within the surface of Castaic Creek or other areas surrounding the bridge. The existing footprint of the bridge would remain the same relative to existing conditions; no expansion in footprint or other permanent disturbances would be required for the seismic retrofits. No expansion in lane capacity would occur, and no changes to the layout of connecting roadways would occur as part of the proposed project.

The proposed seismic retrofit of the existing bridge would include the following:

- **Removal of unsound concrete at the pile extensions and replacement of concrete where necessary.** In order to complete the retrofit, any structurally unsound concrete would be removed and replaced.
- **Retrofitting of the existing concrete foundation.** Construction activities would include approximately 7 feet of soil excavation around the existing concrete pile extensions at each pier, injection of grout under the proposed footing pad to a depth of 10 feet below the bottom of the footing, installation of micro piles, construction of the footing and the infill wall, and backfilling and compacting the excavated soil.
- **Driving of steel micro piles at the piers.** Micro piles, with a diameter of 7 inches, would be installed using an auger drill and would serve as foundation supports to enhance the seismic resistance of the bridge. Micro piles can withstand significant axial loads and moderate lateral loads and would be installed with minimal disturbance to the existing bridge structure (FHWA 2005).
- **Construction of infill walls and foundations.** The construction of infill walls and a new bridge foundation would be included as part of the seismic retrofits. The proposed construction would serve to address transverse vulnerabilities in the bridge piers and bents. Specifically, infill walls would improve the strength and stiffness of the bridge piers, thereby preventing collapse during a seismic event (Caltrans 2016a).
- **Construction of seat extenders and shear keys at the abutments and piers.** The construction of seat extenders and shear keys at the abutments and piers would serve to eliminate bridge unseating (separation of the bridge deck from the structural piers) and would control differential transverse displacement during a seismic event.



SOURCE: Esri, Digital Globe 2017; Open Street Map 2019

FIGURE 1

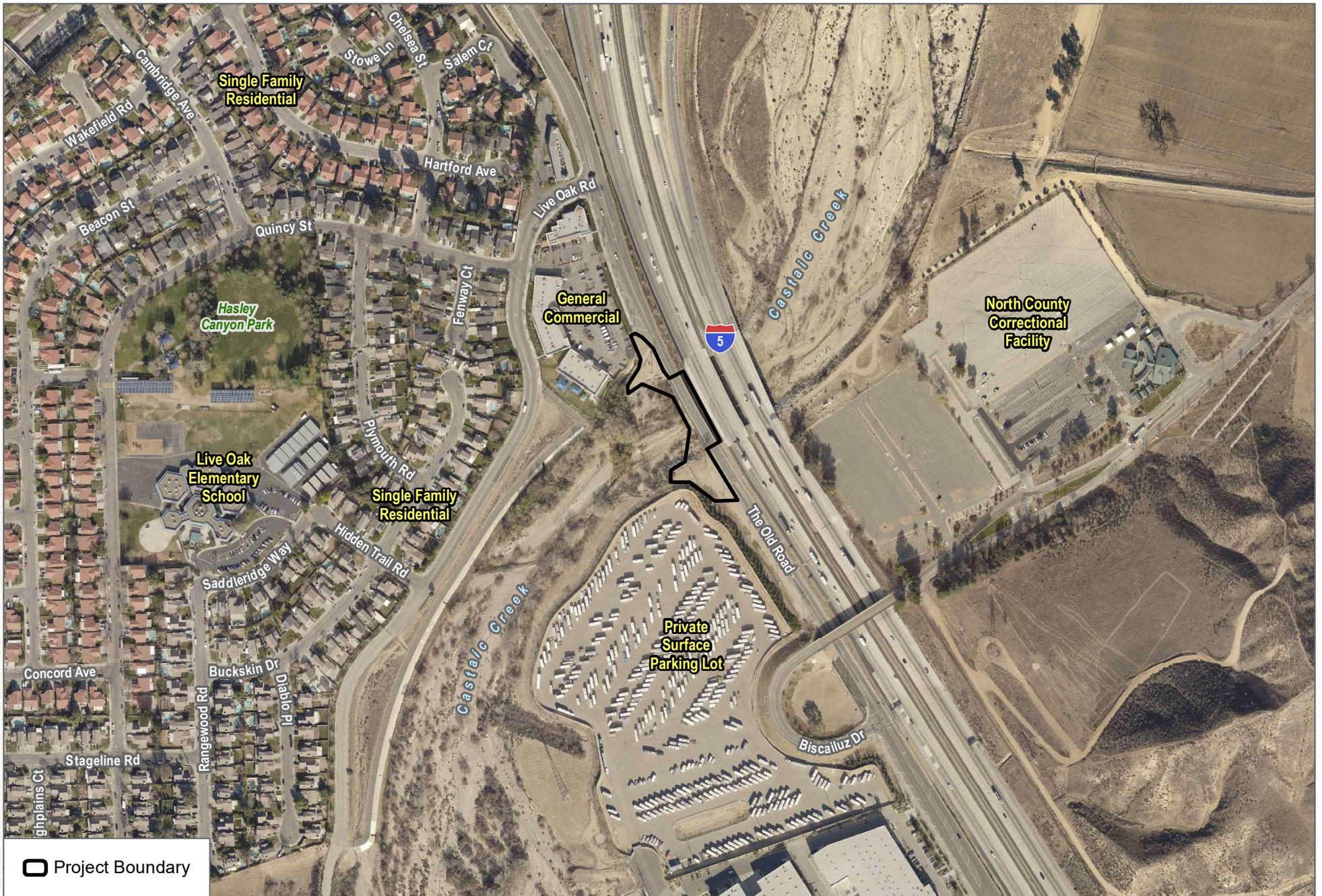
Project Location

The Old Road Over Castaic Creek Project



0 500 1,000 Feet

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SOURCE: Esri, Digital Globe 2017; Open Street Map 2019

FIGURE 2
Surrounding Land Uses
 The Old Road Over Castaic Creek Project

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The improvements listed above would be installed via the bridge deck and by accessing the Castaic Creek bottom. Temporary staging areas would be established to the north and south of the existing bridge, on the existing dirt shoulders of The Old Road on either side of Castaic Creek (see Figure 3, which outlines the proposed staging areas and the proposed work area). No grading or removal of vegetation would need to occur in order to prepare the staging areas for construction vehicle and equipment staging. Temporary construction fencing may be required in order to delineate the limits of the staging areas and prevent any unauthorized encroachment into adjacent drainages and Castaic Creek. Within Castaic Creek, the project would involve a temporary disturbance footprint of approximately 0.43 acre, which would include areas within Castaic Creek and adjacent upland areas outside of the creek. A temporary ramp would be installed during construction, allowing construction equipment to access the creek. Upon completion of construction, any disturbance areas within the creek would be returned to pre-construction conditions.

Project construction is anticipated to occur in 2024 and would be completed in approximately 24 weeks (120 working days). Construction within Castaic Creek is not expected to occur during the rainy season. (Historically, the driest months in Southern California are between April and October; as such, construction is expected to occur from approximately April through September.) Additionally, construction would be timed to avoid upstream dam releases. Construction would occur Monday through Friday from 7:00 a.m. to 6:00 p.m.

During construction, approximately 180 cubic yards of earthwork and demolition material would be removed from the site and exported. It is assumed that these materials would be transported to the Chiquita Canyon Landfill, a nearby landfill that accepts construction and demolition debris.

Construction would occur within the existing right-of-way (ROW); however, temporary construction easements along The Old Road Over Castaic Creek would be necessary. No complete road closures over The Old Road Bridge would occur during construction activities. A partial lane closure would be required; however, two-way traffic would be maintained. Existing utilities would be protected in place during construction activities, and Public Works would coordinate with the applicable utility agencies prior to construction. No trees would be removed during construction.

2.5 Project Operation

Once project construction has been completed, the bridge would be maintained and used in a manner consistent with existing conditions. The proposed project would reduce the likelihood for damages to the bridge during future seismic events. However, aside from improved safety and reduced likelihood for damages and associated repairs, no changes in bridge operation, maintenance, or use would occur as a result of the proposed project.

2.6 Approvals Required for the Proposed Project

Public Works is the lead agency for the proposed project pursuant to CEQA Guidelines Section 15367. The proposed project would require the following discretionary approvals from Public Works:

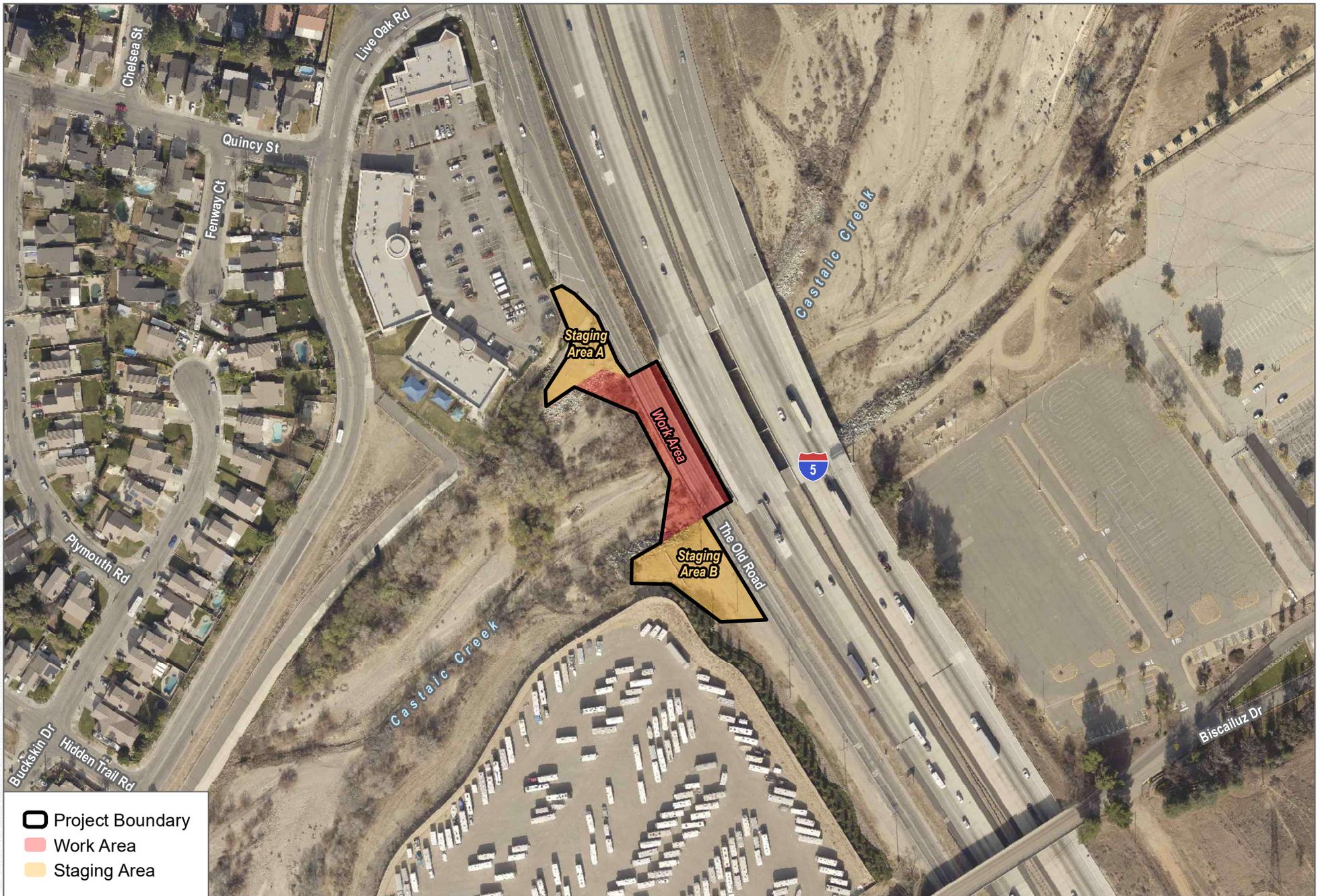
- Adoption of the MND by the County of Los Angeles Board of Supervisors

Discretionary approvals from other regulatory agencies may also be required as follows:

- Caltrans: Approval of a Categorical Exclusion under the National Environmental Policy Act (consistent with 23 CFR 771.117(c)(28))

Permits from other agencies may also be required and are listed below. These permits would be administrative in nature.

- United States Army Corps of Engineers: Section 404 Nationwide Permit
- California Department of Fish and Wildlife: Section 1602 Streambed Alteration Agreement
- Caltrans Encroachment Permit
- Regional Water Quality Control Board: Clean Water Act Section 401 Certification
- Regional Water Quality Control Board: Construction Dewatering Permit (potentially required if groundwater is encountered during construction excavation)



SOURCE: LARIAC 2014; Open Street Map 2019

FIGURE 3
Construction Staging Areas and Work Area
 The Old Road Over Castaic Creek Project

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3 Initial Study Checklist

1. Project title:

The Old Road Over Castaic Creek Project

2. Lead agency name and address:

County of Los Angeles Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803-1331

3. Contact person and phone number:

Albert Anidi, Transportation Planning and Programs Division,
Environmental Planning and Assessments Section
County of Los Angeles Department of Public Works
626.458.5199

4. Project location:

The Old Road Bridge over Castaic Creek (unincorporated community of Val Verde, Los Angeles County, California)

5. Project sponsor's name and address:

County of Los Angeles Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803-1331

6. General plan designation:

The Old Road is designated as a "Major Highway" by the County of Los Angeles. Surrounding properties are designated as General Commercial (CG) and Industrial Office (IO).

7. Zoning:

Surrounding properties are zoned for General Commercial (C-3) and Restricted Heavy Manufacturing (M-1.5-DP).

8. Description of project:

The project would involve seismic retrofits to The Old Road Bridge over Castaic Creek, which is located in the unincorporated community of Val Verde in Los Angeles County. The proposed seismic retrofitting of the existing bridge would bring the bridge into conformance with current seismic standards. Construction of the retrofits is expected to occur in 2024 and would take approximately 24 weeks. Construction would require some excavations within the creek bottom underneath the bridge; however, any disturbance areas within the creek would be returned to pre-construction conditions upon completion of construction. Once project construction has been completed, the bridge would be maintained and used in a manner consistent

with existing conditions. No expansion in lane capacity would occur, and no substantial changes to the layout of connecting roadways would occur.

9. Surrounding land uses and setting:

The project site is located in the foothills of the Sierra Pelona Mountains, within Castaic Valley just north of the junction where Castaic Creek merges with the Santa Clara River. The existing bridge crosses Castaic Creek, a seasonal waterway that runs northeast to southwest in the project area. The project site consists of The Old Road Bridge, portions of the adjacent creek bed and bank, and construction staging areas. The surrounding land uses include Castaic Creek, the creek's banks, and a variety of land uses located near the creek (residential, commercial, parking, vacant land, and institutional uses). Interstate 5 is located immediately east of the project site and runs parallel to The Old Road in the project area.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- California Department of Transportation
- United States Army Corps of Engineers
- California Department of Fish and Wildlife
- Regional Water Quality Control Board

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Yes; a California Native American tribe requested consultation for the project. Consultation has occurred, and a mitigation measure has been set forth to address potential impacts to tribal cultural resources. See Section 3.18 of this IS/MND for further details.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

12. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact,” as indicated by the checklist on the following pages.

- | | | |
|----------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input checked="" type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

13. Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Albert E. Anidi

Signature

1/5/2021

Date

14 Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less Than Significant With Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Would the project have a substantial adverse effect on a scenic vista?*

Less Than Significant Impact. Scenic vistas generally refer to views of expansive open space areas or other natural features, such as mountains, undeveloped hillsides, large natural water bodies, or coastlines. Less commonly, certain urban settings or features, such as a striking or renowned skyline, may also represent a scenic vista. Scenic vistas generally refer to views that are accessible from public vantage points, such as public roadways and parks.

The project site is located in the foothills of the Sierra Pelona Mountains. A number of scenic resources can be seen from public vantage points within the project area: Castaic Creek, the San Gabriel Mountains, and the Sierra Pelona Mountains. There are also views of County-designated “primary” and “secondary” significant ridgelines that are available in the project area (County of Los Angeles Department of Regional Planning 2015).

The proposed project would involve temporary visual changes to a small portion of Castaic Creek during construction. Construction equipment and workers would be present within the creek bed, on the creek banks, on The Old Road Bridge, and within the staging areas adjacent to The Old Road during construction. Some excavation would be required, so soil stockpiles and evidence of ground disturbance may be visible within the creek bed. These temporary visual changes would be visible from public vantage points within the project area, including The Old Road (located within and adjacent to the project site), Live Oak Road

(located to the southwest of the project site), and the I-5 (located to the east of the project site). However, due to the limited size of the project site and the typical speeds of travel on roadways (particularly along the I-5), views of construction activities associated with the project would be fleeting and limited. Furthermore, views of the creek bed from surrounding roadways are generally shielded by vegetation growing along the creek banks. Additionally, due to the elevation differential between the creek bed and the surrounding roadways, a viewer would need to look down into the creek in order to potentially glimpse construction equipment and activities within the creek. While equipment and activities on the deck of The Old Road Bridge and the staging areas on the adjacent dirt shoulders of The Old Road may be more readily visible from surrounding public vantage points, the presence of vehicles and people on or adjacent to the bridge would not substantially obstruct or limit the expansive mountain views that are available when looking beyond the bridge. For these reasons, construction activities would not have a significant, adverse effect on scenic vistas that may be available in the project area. While construction would change the appearance of the project site, this change would be temporary and is not expected to be particularly noticeable from nearby public vantage points. Once construction is complete, the project site would appear the same as existing conditions. The bridge would not be raised or expanded, and any disturbance areas within the creek would be returned to pre-construction conditions. As such, the project has no potential to permanently degrade or obstruct a scenic vista. Therefore, the project would not have a substantial adverse effect on a scenic vista, and impacts would be less than significant.

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 project site consists of an existing bridge and is not located within a designated State Scenic Highway. The nearest designated State Scenic Highway is the SR 2, where it traverses from La Canada Flintridge to San Bernardino County, approximately 27 miles southeast of the project site (USGS 2019). Due to the intervening distance and topography, views of the project site are not available from SR 2. There is one County-designated scenic highway and one Eligible State Scenic Highway in close proximity to the project site (I-5 and SR 126, respectively). I-5 is a County-designated First Priority Scenic Drive from the northernmost boundary of the County, traveling south to its intersection with Lake Hughes Road, approximately three miles north of the project site (County of Los Angeles Department of Regional Planning 2013). SR 126, which meets the I-5 approximately one mile south of the project site, is an Eligible State Scenic Highway (Caltrans 2011a). Views of the project site are not available from either of these highway/roadway segments, due to intervening distance and topography. As such, the project would not be located within a scenic highway or within the viewshed of a scenic highway. Furthermore, the proposed project would not affect or damage scenic resources, as the project would involve seismic retrofitting of an existing bridge. No impact would occur.

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 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?*

No Impact. The proposed project would consist of the seismic retrofit of The Old Road Bridge over Castaic Creek. During the construction phase, the visual character of the project site would be temporarily affected due to the presence of construction equipment and increased activity, as further described above under Section 3.1(a). However, these impacts would be temporary in nature and, therefore, would not constitute

a significant impact to visual character or quality. Upon operation of the proposed project, the seismically retrofitted bridge would function in much the same manner as under existing conditions. No new lanes would be added to the existing bridge and no new buildings or structures would be introduced under the proposed project. The bridge would not be raised or expanded and, therefore, would not substantially change in its appearance. As such, the visual character and quality of the project site would not permanently change as a result of the project. For these reasons, no impacts to visual character or quality would occur.

d) **Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

No Impact. As stated above, the project would consist of the seismic retrofit of The Old Road Bridge over Castaic Creek. The seismic retrofits would not introduce any new sources or light or glare, and the proposed project would not include the construction of any additional buildings or infrastructure that could potentially create a new source of light or glare. Existing streetlights, present on The Old Road to the north of the bridge, would be protected in place during construction and would not be altered, relocated, or improved to the extent that new sources of light or glare would be created. No impact would occur.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – 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 Department 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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. The project site is designated as Urban and Built-Up Land by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) (California Department of Conservation 2016). The project consists of seismic retrofits on an existing bridge and would not involve any permanent land use changes. As such, the project does not have the potential to convert Farmland to non-agricultural uses, and no impact would occur.

b) **Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

No Impact. The proposed project would not conflict with existing zoning for agricultural use, as the project consists of seismic retrofits on an existing bridge and would not involve any permanent land use or zoning changes. Additionally, according to the DOC's Williamson Act Contract Land Map, the project site is not located on, or in the general vicinity of, land that is enrolled in a Williamson Act Contract (California Department of Conservation 2017). Given this, the proposed project would have no impact to existing zoning for agricultural use or a Williamson Act contract.

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))?**

No Impact. The project site is not located within forest land, timberland, or a Timberland Production zone. The proposed project consists of seismic retrofits on an existing bridge and would not involve any permanent land use or zoning changes. Thus, the proposed project would have no impact on forest land, timberland, and Timberland Production zones.

d) **Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

No Impact. As stated above, the project site is not located within forest land, timberland, or a Timberland Production zone. The proposed project consists of seismic retrofits on an existing bridge and would not involve any permanent land use or zoning changes. Thus, the proposed project would not result in the loss or conversion of forest land to non-forest use, and no impact would occur.

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. Areas of Prime Farmland, Farmland of Statewide Importance and Unique Farmland are located within one mile of the project site (California Department of Conservation 2016). Although these farmland areas lie in close proximity to the project site, construction activities would occur within The Old Road, on the shoulders of The Old Road, within Castaic Creek, and within adjacent upland areas outside of the creek and would not result in encroachment into or acquisition of properties used for agriculture or forest land. Upon operation of the project, the retrofitted bridge would serve the same function as it does under existing conditions. Given this, the proposed project would not 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 would occur.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **Would the project conflict with or obstruct implementation of the applicable air quality plan?**

Less Than Significant Impact. The project site is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County, and is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).

The SCAQMD administers the Air Quality Management Plan (AQMP) for the SCAB; the AQMP is a comprehensive document outlining an air pollution control program for attaining all California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recent adopted AQMP is the 2016 AQMP (SCAQMD 2017), which was adopted by the SCAQMD Governing Board in March 2017. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases (GHGs) and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

The purpose of a consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and, thus, if it would interfere with the region's ability to comply with federal and state air quality standards. The SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3, in the SCAQMD CEQA Air Quality Handbook. The criteria are as follows (SCAQMD 1993):

- Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion regarding the project's potential to result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP, project-generated criteria air pollutant emissions were estimated and analyzed for significance and are addressed under Section 3.3(b). Detailed results of this analysis are included in Appendix A. As presented in Section 3.3(b), project construction would not generate criteria air pollutant emissions that would exceed the SCAQMD thresholds, and the project is not anticipated to generate operational criteria air pollutant emissions.

The second criterion regarding the project's potential to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the project's land use designations and potential to generate population growth. In general, projects are considered consistent with, and would not conflict with or obstruct implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook). The SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by the Southern California Association of Governments (SCAG) for its Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (SCAG 2016), which is based on general plans for cities and counties in the SCAB, for the development of the AQMP emissions inventory (SCAQMD 2017).¹ The SCAG 2016 RTP/SCS, and associated Regional Growth Forecast, are generally consistent with

¹ Information necessary to produce the emission inventory for the SCAB is obtained from the SCAQMD and other governmental agencies, including the California Air Resources Board (CARB), the California Department of Transportation, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016 RTP/SCS are integrated in the 2016 AQMP (SCAQMD 2017).

the local plans; therefore, the 2016 AQMP is generally consistent with local government plans. SCAG has recently adopted *Connect SoCal* (also known as the 2020-2045 RTP/SCS) (SCAG 2020). However, because the current AQMP coincides with data from the 2016 RTP/SCS, this analysis relies on the current AQMP and the 2016 RTP/SCS.

As discussed in Section 2 of this IS/MND, the proposed project would involve the seismic retrofitting of an existing bridge. The proposed retrofitting of the bridge would not change or affect the existing zoning or land use designations in the project area. Accordingly, the project would be consistent with the SCAG RTP/SCS forecasts used in the SCAQMD AQMP development.

In summary, based on the considerations presented for the two criteria, impacts relating to the proposed project's potential to conflict with or obstruct implementation of the applicable AQMP would be less than significant.

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. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

A quantitative analysis was conducted to determine whether proposed construction activities would result in a cumulatively considerable net increase in emissions of criteria air pollutants for which the SCAB is designated as nonattainment under the NAAQS or CAAQS. Criteria air pollutants include ozone (O₃), nitrogen dioxide (NO₂), CO, sulfur dioxide (SO₂), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM_{2.5}), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen (NO_x), which are important because they are precursors to O₃, as well as CO, sulfur oxides (SO_x), PM₁₀, and PM_{2.5}.

Regarding NAAQS and CAAQS attainment status,² the SCAB is designated as a nonattainment area for national and California O₃ and PM_{2.5} standards (CARB 2017a; EPA 2017a). The SCAB is designated as a nonattainment area for California PM₁₀ standards; however, it is designated as an attainment area for national PM₁₀ standards. The SCAB nonattainment status of O₃, PM₁₀, and PM_{2.5} standards is the result of cumulative emissions from various sources of air pollutants and their precursors within the SCAB, including motor vehicles, off-road equipment, and commercial and industrial facilities. The SCAB is designated as an attainment area for national and California NO₂, CO, and SO₂ standards. Although the SCAB has been

² An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. The NAAQS and CAAQS are set by the Environmental Protection Agency and CARB, respectively, for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. Attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards.

designated as partial nonattainment (Los Angeles County) for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.³

Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air district may be relied upon to determine whether a project would have a significant impact on air quality. The SCAQMD has established Air Quality Significance Thresholds, as revised in March 2015, which set forth quantitative emissions significance thresholds below which a project would not have a significant impact on ambient air quality (SCAQMD 2015). The quantitative air quality analysis provided herein applies the SCAQMD thresholds to determine the potential for the project to result in a significant impact under CEQA. The SCAQMD mass daily construction thresholds are as follows: 75 pounds per day for VOC, 100 pounds per day for NO_x, 550 pounds per day for CO, 150 pounds per day for SO_x, 150 pounds per day for PM₁₀, and 55 pounds per day for PM_{2.5}.

The following discussion quantitatively evaluates project-generated construction impacts and qualitatively evaluates operational impacts that would result from implementation of the proposed project.

Construction Emissions

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment and soil disturbance) and off-site sources (i.e., on-road haul trucks, delivery trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and, for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

The Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (RCEM), Version 9.0.0 was used to estimate emissions for construction of the proposed project. RCEM is a spreadsheet-based model, which can be used to assist roadway and bridge projects to determine the emission impacts. RCEM input parameters, including the project size, construction schedule, number of worker/delivery/haul trips, and anticipated construction equipment utilization, were based on information provided by Public Works and default model assumptions when project-specific data was not available.

For the purpose of conservatively estimating project emissions, it is assumed that construction of the project would occur in 2021 and would last approximately 24 weeks.⁴ The construction phasing schedule and duration, vehicle trip assumptions, and construction equipment mix used for estimating the project-generated emissions are shown in Table 3.3-1.

³ Re-designation of the lead NAAQS designation to attainment for the Los Angeles County portion of the SCAB is expected based on current monitoring data. The phase out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

⁴ As stated in Section 2.4, construction is expected to begin in 2024. However, the air quality analysis assumes an earlier start date (2021). Using an earlier start date represents a worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 3.3-1. Construction Scenario Assumptions

Construction Phase	Start Date	Finish Date	One-Way Vehicle Trips			Equipment		
			Average Daily Workers ^a	Average Daily Vendor Trucks ^b	Total Haul Trucks ^c	Type	Quantity	Usage Hours
Clearing/ Demolition	04/05/2021	04/13/2021	30	10	64	Tractors/ Loaders/ Backhoes	2	8
Grading/ Excavation	04/14/2021	05/29/2021	30	10	0	Tractors/ Loaders/ Backhoes	4	8
Construction	05/30/2021	09/20/2021	30	10	0	Cement and Mortar Mixer	1	8
						Pump	1	8
						Tractors/ Loaders/ Backhoes	2	8

Notes: See Appendix A for details.

Equipment types provided by Public Works were matched with the construction equipment presented in the RCEM model.

- ^a 30 one-way worker vehicle trips equates to 15 workers per day.
- ^b Water trucks are included as vendor trips for construction emissions modeling.
- ^c Dump trucks are included as haul trips for construction emissions modeling.

Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of VOCs, NO_x, CO, PM₁₀, and PM_{2.5}. PM₁₀ and PM_{2.5} emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. The project would be required to comply with SCAQMD Rule 403 to control dust emissions during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active grading areas twice per day, with additional watering depending on weather conditions.

Estimated maximum daily construction criteria air pollutant emissions from all on-site and off-site emission sources is provided in Table 3.3-2.

Table 3.3-2. Estimated Maximum Daily Construction Emissions

Year	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	<i>pounds per day</i>					
2021	2.70	28.28	26.26	0.06	5.10	1.99
<i>SCAQMD Threshold</i>	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: SCAQMD 2015.

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SCAQMD = South Coast Air Quality Management District. See Appendix A for detailed results.

As shown in Table 3.3-2, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM₁₀, or PM_{2.5} during project construction.

As discussed previously, the SCAB has been designated as a federal nonattainment area for O₃ and PM_{2.5} and a state nonattainment area for O₃, PM₁₀, and PM_{2.5}. Proposed construction activities of the project would generate VOC and NO_x emissions (which are precursors to O₃) and emissions of PM₁₀ and PM_{2.5}. However, as indicated in Table 3.3-2, project-generated construction emissions would not exceed the SCAQMD emission-based significance thresholds for VOC, NO_x, PM₁₀, or PM_{2.5}, and therefore the project would not cause a cumulatively significant impact.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Construction schedules for potential future projects near the project site are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be considered speculative.⁵ However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM₁₀ and PM_{2.5} emissions would also be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SCAQMD. Based on the previous considerations, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant.

Operational Emissions

Once project construction is complete, the bridge would be maintained and used in a manner consistent with existing conditions. No changes in operations would occur as a result of the proposed project.

Overall, impacts would be less than significant.

c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less Than Significant Impact. Localized project impacts associated with construction criteria air pollutants emissions are assessed as follows:

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest sensitive receptor land uses are located approximately 230 feet to the west of the proposed work area.

⁵ The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145). This discussion is nonetheless provided in an effort to show good-faith analysis and comply with CEQA's information disclosure requirements.

Localized Significance Thresholds

The SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the project site as a result of construction activities. The impacts were analyzed using methods consistent with those in the SCAQMD’s Final Localized Significance Threshold Methodology (SCAQMD 2009). The project is located in Source Receptor Area (SRA) 13 (Santa Clarita Valley). The project’s construction activities would occur over a 1.1-acre work area; therefore, for the purposes of the LST analysis, emissions thresholds based on a one-acre site were utilized, which is the smallest area provided within the SCAQMD Mass Rate LST Look-up Tables. This is a conservative approach, as LSTs increase with the size of project site. As mentioned previously, the closest sensitive receptors are residences located approximately 230 feet (70 meters) to the west of the proposed work area. The LSTs assumed for a distance of 70 meters were interpolated based on the 50 meters and 100 meters values given in the SCAQMD methodology.

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with construction equipment exhaust and dust-generating activities. The maximum daily on-site construction emissions generated during construction of the proposed project are presented in Table 3.3-3, and compared to the SCAQMD localized significance criteria for SRA 13 to determine whether project-generated on-site construction emissions would result in potential LST impacts.

Table 3.3-3. Construction Localized Significance Thresholds Analysis

Year	NO ₂	CO	PM ₁₀	PM _{2.5}
	<i>pounds per day (on site)</i>			
2021	28.28	26.26	5.10	1.99
SCAQMD LST Criteria	122	1,045	17	5
Threshold Exceeded?	No	No	No	No

Source: SCAQMD 2009.

Notes: NO₂ = nitrogen dioxide; CO = carbon monoxide; PM₁₀ = particulate matter; PM_{2.5} = fine particulate matter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.

See Appendix A for detailed results.

Localized significance thresholds are shown for a 1-acre project site corresponding to a distance to a sensitive receptor of 230 feet (70 meters).

As shown in Table 3.3-3, proposed construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized project construction impacts would be less than significant.

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO “hotspots.” CO transport is extremely limited, because CO disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections. Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a

signalized intersection that would potentially subject sensitive receptors to CO hotspots. During construction of the project, construction traffic would affect the intersections near the project site. However, project construction would be temporary and would not be a source of daily, long-term mobile-source emissions. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. Finally, as discussed in Section 3.17 of this IS/MND, transportation impacts would be less than significant. Therefore, the proposed project would not generate additional traffic volumes, and impacts related to CO hot spots would be less than significant.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances 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. As discussed under the LST analysis, the nearest sensitive receptors to the proposed project are located approximately 230 feet to the west of the proposed work area.

Health effects from carcinogenic air toxins are usually described in terms of cancer risk. The SCAQMD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. The SCAQMD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) non-carcinogenic effects.⁶ TACs that would potentially be emitted during construction activities associated with the proposed project would be diesel particulate matter.

Diesel particulate matter emissions would be emitted from heavy equipment operations and heavy-duty trucks. Heavy-duty construction equipment is subject to a California Air Resources Board (CARB) Airborne Toxics Control Measure for in-use diesel construction equipment to reduce diesel particulate emissions. As described for the LST analysis, PM₁₀ and PM_{2.5} (representative of diesel particulate matter) exposure would be minimal. According to the Office of Environmental Health Hazard Assessment, health risk assessments (which determine the exposure of sensitive receptors to toxic emissions) should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should also be limited to the period/duration of activities associated with the project. The duration of the proposed construction activities would constitute a small percentage of the total 30-year exposure period. The construction period for the proposed project would be approximately 24 weeks, after which construction-related TAC emissions would cease. Due to this relatively short period of exposure and minimal particulate emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

Following completion of on-site construction activities, the project would not involve routine operational activities that would generate TAC emissions. Operation of the project would not result in any non-permitted direct emissions (e.g., those from a point source such as diesel generators). For the reasons previously described,

⁶ Non-cancer adverse health risks are measured against a hazard index, which is defined as the ratio of the predicted incremental exposure concentrations of the various non-carcinogens from the project to published reference exposure levels that can cause adverse health effects.

the project would not result in substantial TAC exposure to sensitive receptors in the vicinity of the project, and impacts would be less than significant.

Asbestos

Prior to construction, Public Works would conduct studies of the project site to determine whether asbestos is present. If asbestos-containing materials are identified, demolition or disturbance activities associated with the project could result in airborne entrainment of asbestos. The regulation of asbestos is covered under the U.S. EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP). In addition, if these materials are determined to be present and could be released to the environment as a result of the project, they would be removed in accordance with SCAQMD Rule 1403 (Asbestos Emissions), which establishes survey, notification, and work practice requirements to prevent asbestos emissions during building demolition. Furthermore, Public Works would require a Site-Specific Asbestos Abatement Plan if asbestos is identified, and the construction contractor for the project would be required by Public Works to remove and handle any asbestos-containing materials safely and in accordance with applicable rules and regulations, thereby ensuring the construction would not result in adverse effects related to the release of asbestos into the environment.

Health Effects of Criteria Air Pollutants

Construction emissions of the project would not exceed the SCAQMD thresholds for any criteria air pollutants, including VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}.

Health effects associated with O₃ include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2019). VOCs and NO_x are precursors to O₃, for which the SCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The contribution of VOCs and NO_x to regional ambient O₃ concentrations is the result of complex photochemistry. The increases in O₃ concentrations in the SCAB due to O₃ precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to occur. Further, the potential for exacerbating excessive O₃ concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the O₃ NAAQS and CAAQS tend to occur between April and October when solar radiation is highest. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O₃ precursors is speculative. Because the project would not exceed the SCAQMD thresholds, the project would not contribute to health effects associated with O₃.

Health effects associated with NO_x include lung irritation and enhanced allergic responses (CARB 2019). Because project-related NO_x emissions would not exceed the SCAQMD mass daily thresholds, and because the SCAB is a designated attainment area for NO₂ and the existing NO₂ concentrations in the area are well below the NAAQS and CAAQS standards, it is not anticipated that the project would cause an exceedance of the NAAQS and CAAQS for NO₂ or result in potential health effects associated with NO₂ and NO_x.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2019). CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots was discussed previously and determined to be less than significant. Thus, the project's CO emissions would not contribute to significant health effects associated with CO.

Health effects associated with PM₁₀ include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2019). Construction of the project would not exceed thresholds for PM₁₀ or PM_{2.5}, would not contribute to exceedances of the NAAQS and CAAQS for particulate matter, and would not obstruct the SCAB from coming into attainment for these pollutants. The project would also not result in substantial diesel particulate matter emissions during construction. Additionally, the project would be required to comply with SCAQMD Rule 403, which limits the amount of fugitive dust generated during construction. Due to the minimal contribution of particulate matter during construction, the project is not anticipated to result in health effects associated with PM₁₀ or PM_{2.5}.

In summary, construction and operation of the project would not result in exceedances of the SCAQMD significance thresholds for criteria pollutants, and potential health effects associated with criteria air pollutants would be less than significant.

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. The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

During project construction, exhaust from equipment may produce discernible odors typical of most construction sites. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. However, such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Accordingly, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). Operation of the project would not entail any of these potentially odor-causing land uses. Therefore, the project would not create any new sources of odor during operation, and project operations would result in an odor impact that is less than significant.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section describes the existing biological resources present on the project site and the Biological Study Area (BSA) identified in the Natural Environment Study (NES) prepared for the project and included as Appendix B. The BSA is depicted on the Newhall Ranch, California quadrangle of the United States Geological Survey (USGS) 7.5-minute topographic map series on Section 12, Range 17 West, Township 4 North. Land uses in the vicinity of the BSA consist of residential and commercial development to the north, commercial development to the south, and undeveloped land associated with Castaic Creek to the east and west. The impact area includes the bridge abutments and footings. A BSA was established around the proposed project, consisting of the proposed impact area and a surrounding 500-foot buffer to document existing conditions and determine the potential for project-related impacts to occur.

Vegetation within the BSA is primarily associated with the Castaic Creek channel; however, the majority of the BSA is comprised of developed land and disturbed habitat associated with urban development located in the creek's upland areas. The project site occurs within the Santa Clara River Watershed (USGS HUC [Hydrologic Unit Code] 8: 18070102) and crosses over Castaic Creek (USGS HUC 10: 1807010203).

Vegetation communities and land covers found within the BSA are comprised of annual brome grasslands, arroyo willow thickets, California sagebrush scrub, Fremont cottonwood-red willow woodland, giant reed breaks, narrow cattail-salt grass marshes, scale broom-mulefat scrub, tamarisk thickets, thick-leaf yerba santa scrub, disturbed habitat, open water, and urban/developed land. The BSA is generally situated in an intergrade between urbanized areas associated with residential, commercial, and industrial developments and riparian vegetation associated with the Castaic Creek. A detailed description of each vegetation community and cover class is included in Appendix B. Prominent features within the BSA include The Old Road Over Castaic Creek, I-5, and Castaic Creek, a north-south trending watercourse. The Angeles National Forest is located approximately 3.9 miles northeast of the BSA.

- 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 Game or U.S. Fish and Wildlife Service?***

Less Than Significant with Mitigation Incorporated. The project site occurs within a disturbed and developed area associated with The Old Road Bridge, as well as native habitat areas associated with Castaic Creek.

Special-Status Wildlife Species

A review of the California Natural Diversity Database (CNDDB) determined that 22 special-status species have potential habitat present within the BSA, and of these 22 species, three species were determined to have a moderate potential to occur: southern California legless lizard (*Anniella stebbinsi*; California Department of Fish and Wildlife Species of Special Concern (SSC)), arroyo toad (*Anaxyrus californicus*; federally endangered), and special-status bats. Additionally, the BSA contains or is located within the vicinity of United States Fish and Wildlife critical habitat for arroyo toad, least Bell's vireo (*Vireo bellii pusillus*; federally endangered and state endangered), and southwestern willow flycatcher (*Empidonax traillii extimus*; federally endangered and state endangered). Yellow warbler (*Setophaga petechia*; SSC) was observed on the BSA during focused surveys for least Bell's vireo. There are also three special-status fish species that could occur within Castaic Creek: Santa Ana sucker (*Catostomus santaanae*; federally threatened species), unarmored three-spine stickleback (*Gasterosteus aculeatus*; federally and state listed endangered species), and a California Department of Fish and Wildlife fully protected species), and arroyo chub (*Gila orcutti*; SSC). Conclusions for each of these species from the NES are summarized as follows.

- **Southern California legless lizard.** This species was not observed during surveys for other special-status species in the BSA and is presumed absent from the BSA. No significant effects to southern California legless lizard would occur as a result of the project.
- **Special-status bats.** A focused bat survey determined that bats are not roosting within the bridge or immediately adjacent areas. No special-status bat species were detected within the BSA. The project would not result in the temporary or permanent removal of roosting habitat that could support any special-status bats. However, project construction could temporarily disturb bats, in the event that any are roosting or foraging within or near the project site. Upon implementation of MM-BIO-1, temporary effects to bats would be less than significant.

- Arroyo toad. The BSA occurs within United States Fish and Wildlife Service critical habitat for the arroyo toad, which could use the portions of Castaic Creek within the BSA for a wildlife movement corridor. However, the scheduled release of flows from Castaic Lake have created unfavorable conditions to support arroyo toad within the BSA during the species' breeding season from March to June. Additionally, no arroyo toads were observed or detected during focused surveys for the species. Therefore, the potential for arroyo toad to occur within the BSA is significantly reduced and arroyo toad is no longer expected to occur within the BSA. As such, the proposed project is not expected to adversely affect arroyo toad or its habitat.
- Southwestern willow flycatcher. The BSA also occurs within critical habitat for the southwestern willow flycatcher. Southwestern willow flycatcher surveys resulted in negative findings of any willow flycatchers, migrant or otherwise, within the portion of Castaic Creek within and immediately adjacent to the BSA. While suitable habitat for this species persists within the BSA, no suitable habitat would be removed by the project, and this species is not expected to occur. Therefore, the proposed project would not result in any direct or indirect impacts to southwestern willow flycatcher.
- Least Bell's vireo. Critical habitat for the least Bell's vireo occurs approximately 0.6 miles southwest of the BSA within the Santa Clara River. However, least Bell's vireo was not observed within the BSA during focused protocol surveys conducted for the species. Therefore, this species is considered absent from the BSA, and no direct or indirect impacts would occur.
- Yellow warbler. Yellow warbler was observed on the BSA during focused surveys for least Bell's vireo. Indirect project-related impacts to yellow warbler may occur during project implementation as a result of adjacent noise and human encroachment into nesting territory during the breeding season. If project activities occur during the general avian breeding season of February through August, yellow warbler, as well as other protected bird species nesting within the BSA, may be impacted. Upon implementation of MM-BIO-2, temporary construction impacts to yellow warbler and other protected nesting bird species would be less than significant with mitigation incorporated. Permanent impacts would not occur, since the project would not result in any permanent removal of habitat.
- Special-status fish. Castaic Creek could provide potentially suitable habitat for the Santa Ana sucker, unarmored three-spine stickleback, and arroyo chub when the creek has flowing water present. If project activities occur during high flows, these species may be affected. However, as described in Section 2, construction is not expected to occur within Castaic Creek when flows are high. Construction is expected to occur during the dry season (April through September) and would be timed to avoid upstream dam releases. For this reason, significant impacts to special-status fish and their habitat would not occur.

MM-BIO-1 A pre-construction clearance survey for special-status and maternity roosting bats will be conducted within 10 days prior to construction. If bats or signs of bats are observed prior to or during construction, the roost must be avoided during the maternity roosting season of March through August. An avoidance buffer will be placed around the roost (up to 150-foot) and a biological monitor must be present to ensure no construction activities result in roost abandonment. The buffer distance will be determined based on sensitivity of the roosting species to disturbance and proximity of the roost to project activities. Construction may continue in this area only at the discretion of the monitoring biologist. Outside of the maternity roosting season, exclusionary measures can be implemented to evict bats from the roost to clear the site of roosting bats (as opposed to establishing an avoidance buffer). If exclusion is determined to be appropriate, exclusion measures shall be detailed in a Bat

Exclusion Plan and include installing one-way doors to evict bats at night to prevent them from returning. Additionally, pre-project conditions shall be restored so that bats may be able to return to the roost after construction.

MM-BIO-2 If construction occurs during the avian breeding season, a pre-construction clearance survey will be conducted within 10 days prior to the start of construction in order to determine the presence/absence of nesting yellow warblers and other nesting birds and raptors. If an active nest is discovered, a buffer of 150 feet for passerines and 500 feet for raptors will be established around the nest and a biological monitor will be present to ensure no direct or indirect impact to this species occurs. No project activities shall encroach into the buffer until the nest is determined to be inactive.

Special-Status Plant Species

Thirty special-status plant species were evaluated to determine their potential to occur within the BSA. Thirteen of these species were determined to not have suitable habitat present and no potential to occur, and of the 17 species determined to have potential habitat present, one species, white rabbit-tobacco (*Pseudognaphalium leucocephalum*; moderately threatened), was observed within the BSA. The remaining 16 species with potential habitat present are not expected to occur or were determined to have a low potential to occur due to extirpation of nearby occurrences, lack of known populations within 5 miles of the BSA, or absence during the focused special-status plant species surveys. A total of 223 white rabbit-tobacco individuals were documented within the BSA with the majority of the individuals downstream, southwest of the proposed project site. One white rabbit-tobacco individual was observed within the proposed temporary impact area for the project and may be impacted during construction, resulting in an impact on 0.45% of the total individuals documented within the BSA. The remaining 222 individuals would not be impacted by the project, as they lie outside of the proposed temporary disturbance area. However, due to the presence of this special-status species within the project's temporary disturbance area, potentially significant impacts could occur in the event that the species were to be removed or destroyed during construction. Mitigation measure MM-BIO-3 has been set forth to reduce potential effects to the white rabbit-tobacco to below a level of significance.

MM-BIO-3 Prior to the start of construction, a qualified biologist shall flag the white rabbit-tobacco plant species in the field. Additionally, temporary orange construction fencing shall be established between the proposed project impact areas and the white rabbit-tobacco individuals. Upon construction completion, a qualified biologist shall monitor the removal of the temporary orange construction fencing to avoid impacts to white rabbit-tobacco individuals.

During project implementation, noxious and invasive weeds may be introduced to the project area from construction equipment and personnel vehicles. The potential introduction of noxious weeds is considered a significant impact to native habitat. However, MM-BIO-4 would minimize the potential for such weeds to be introduced during construction, reducing the impact to below a level of significance.

MM-BIO-4 Prior to entering into Castaic Creek, all construction equipment shall be inspected and cleaned prior to use to minimize the importation and spread of non-native plant material.

Upon implementation of MM-BIO-1, MM-BIO-2, MM-BIO-3, and MM-BIO-4, impacts to special-status species would be less than significant with mitigation incorporated.

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 Game or U.S. Fish and Wildlife Service?***

No Impact. Twelve natural communities of special concern are reported to occur within the USGS 7.5-minute topographic quadrangle for Newhall, California and the surrounding eight quadrangles (Whitaker Peak, Warm Springs Mountain, Green Valley, Val Verde, Mint Canyon, Santa Susana, Oat Mountain, San Fernando): California walnut woodland, cismontane alkali marsh, mainland cherry forest, Riversidian alluvial fan sage scrub, Southern California threespine stickleback stream, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern mixed riparian forest, southern riparian scrub, southern sycamore alder riparian woodland, southern willow scrub, and valley oak woodland. Two natural communities of special concern, including scale broom-mulefat scrub and thick leaf yerba santa scrub, overlap with the BSA. All work at the piers would be done by accessing the creek. The habitat within the proposed impact areas for the project consist of tamarisk thickets, open water (channel bottom), disturbed habitat, and developed land. The two natural communities of special concern (scale broom-mulefat scrub and thick leaf yerba santa scrub) are outside of the proposed project impact areas. Therefore, no impact would occur.

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. A jurisdictional delineation was conducted for the proposed project to determine whether jurisdictional water resources are present within or adjacent to the project area. The BSA was found to contain jurisdictional wetlands and non-wetland waters of the United States and state, as The Old Road Bridge spans over the earthen-bottom Castaic Creek that conveys scheduled dam release flows from Castaic Lake, as well as stormwater flows, downstream towards the Santa Clara River, a relatively permanent water (RPW) that directly drains into the Pacific Ocean, a traditional navigable water (TNW). Castaic Creek is an ephemeral stream that originates from Castaic Lake and terminates approximately 2.55 miles downstream of the bridge at the Santa Clara River. The width of the channel within the BSA ranges from approximately 19 feet to 102 feet wide. Castaic Creek is controlled by a dam upstream at Castaic Lake. Water flows approximately three to five months out of the year, between January and May, when water is released from Castaic Dam. Castaic Creek also receives perennial surface runoff through culverts from surrounding development. Castaic Creek would be subject to jurisdiction under the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW).

Additionally, two unnamed drainages occur within the BSA that could be potentially jurisdictional. Unnamed Drainage 1 is an earthen drainage located on the west side of Castaic Creek on the south side of The Old Road Bridge. A culvert at The Old Road Bridge transports continuous urban runoff into the drainage, which

terminates approximately 290 feet downstream at Castaic Creek. The width of the drainage ranges from approximately 3 feet to 10 feet wide. Unnamed Drainage 1 is potentially subject to jurisdiction under the USACE, RWQCB, and CDFW. Unnamed Drainage 2 is an earthen drainage located on the west side of Castaic Creek and approximately 485 feet south of The Old Road Bridge. A concrete levee borders the drainage on the west side. A culvert under the levee transports runoff into the drainage, which terminates approximately 385 feet downstream at Castaic Creek. The width of the drainage is approximately 15 feet. Unnamed Drainage 2 is potentially under jurisdiction of the USACE, RWQCB, and CDFW.

There would be access into the creek to conduct a portion of the proposed bridge retrofit activities. The project would result in up to a total of 0.43 acres of temporary impacts as a result of access for the project within Castaic Creek in order to conduct retrofit activities. Project-related impacts to Castaic Creek would result in approximately 0.07 acres of temporary impacts to non-wetland waters of the U.S. and state under jurisdiction of the USACE and RWQCB, respectively; and approximately 0.22 acres of CDFW-regulated non-wetland waters, as shown in Table 3.4-1. This would be considered a significant impact to jurisdictional waters. As such, Public Works would be required to obtain a Streambed Alteration Agreement from CDFW, a Section 401 Water Quality Certification from the RWQCB, and a Section 404 Nationwide Permit from the USACE for the project.

Table 3.4-1. Jurisdictional Wetlands and Waters Delineated within the BSA

Regulatory Agency	Jurisdictional Wetlands Within the BSA (acres)	Non-Wetland Jurisdictional Waters within the BSA (acres)	Total Jurisdiction within BSA (acres)	Temporary Impact Acres (non-wetland)
U.S. Army Corps of Engineers	0.09	1.15	1.24	0.07
Regional Water Quality Control Board	0.09	1.15	1.24	0.07
California Department of Fish and Wildlife	1.79	5.19	7.58	0.22

Source: Appendix B

In order to reduce impacts to jurisdictional waters, work areas would be reduced to the maximum extent feasible, and staging areas would be situated along the existing shoulders of The Old Road, outside of Castaic Creek. Temporary construction fencing may be installed to delineate the limits of the staging areas and prevent any unauthorized encroachment into adjacent drainages and Castaic Creek. During construction, erosion control measures would be implemented for the proposed project and construction site best management practices (BMPs) would be put in place to control any construction-related pollutants. The erosion control measures and BMPs would be developed and implemented in compliance with state and County requirements, including the *Los Angeles County Department of Public Works Construction Site Best Management Practices Manual* (Public Works 2010) and the state Construction General Permit. BMPs would include temporary sediment control, temporary soil stabilization, waste management and materials pollution control, and other non-storm water BMPs.

If groundwater is encountered during excavation, any dewatering would be required to occur under a construction dewatering permit issued by the Los Angeles RWQCB. The permit conditions would require the groundwater to be tested for contaminants. In the event that contamination is identified, the permit

conditions would include proper treatment of the groundwater prior to discharge, ensuring that pollutants do not adversely affect Castaic Creek or the associated habitat.

Additionally, MM-BIO-5 would be required to ensure that disturbed habitat within non-wetland jurisdictional waters is replaced. Upon compliance with erosion control measures, compliance with conditions of the dewatering permit (in the event that dewatering is deemed necessary), implementation of construction site BMPs, and implementation of MM-BIO-5, impacts would be less than significant.

MM-BIO-5 Temporary impacts to non-wetland waters will be mitigated at a minimum 1:1 ratio either through on-site restoration of in-kind habitat or through the purchase of off-site in-lieu fee credits through an agency-approved mitigation bank. The final mitigation ratio and strategy will be determined through the regulatory permitting process and consultation with the United States Army Corps of Engineers (USACE), Los Angeles Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW).

Upon implementation of MM-BIO-5, impacts to non-wetland jurisdictional waters would be less than significant with mitigation incorporated.

- 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. The BSA is not likely to be used as a migration or travel corridor but may be used for local wildlife movement and foraging in the area. Project construction could temporarily interfere with local wildlife movement and foraging due to increased human and equipment presence within Castaic Creek during construction. The BSA may be used by migratory birds and bats for nesting or roosting and foraging, and migratory birds or bats could be impacted during construction. If project activities occur during the general avian breeding season of February through August, protected bird species nesting within the BSA may be impacted, which would be considered significant. With implementation of MM-BIO-1 and MM-BIO-2, impacts would be less than significant with mitigation incorporated.

- 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 Impact. As part of the Conservation and Open Space and Land Use elements of its General Plan, the County has identified and adopted policies since 1970 for the establishment of Significant Ecological Areas (SEAs). SEAs are designated to maintain biological diversity by establishing natural biological parameters (key species, habitat types, and linkages) and recommended management practices. The final boundaries and categories for the current 21 SEAs (and 9 Coastal Resource Areas) were established in 2015 with the County Board of Supervisors approval of the General Plan 2035.

The proposed project area occurs within the Santa Clara River SEA (SEA 23) within unincorporated Los Angeles County jurisdiction. SEA 23 represents the last major unchanneled river in the County and was designated primarily due to the threat of loss of suitable habitat for the federally and state-listed endangered unarmored threespine stickleback. Impacts to SEAs are considered significant when a new

building or structure is proposed that would result in a ground-disturbing impact to an area mapped within an SEA. These significant impacts would require approval from the Significant Ecological Areas Technical Advisory Committee (SEATAC) prior to construction. However, because the proposed project would involve seismic retrofits to an existing bridge and is not constructing a new building or structure, the proposed project would be exempt from SEATAC approval. Therefore, the project would have a less than significant impact relative to local policies or ordinances protecting biological resources.

- 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 would not be located within the limits of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; therefore, there would be no impact.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) **Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?**

Less Than Significant Impact. A California Historical Resources Information System (CHRIS) records search of the proposed project site and a one-mile radius was conducted at the South Central Coastal Information Center (SCCIC) on the campus of California State University Fullerton on March 20, 2019. The records search did not identify any previously recorded resources on the project site. One isolated projectile point and two historic structures were recorded within one mile of the proposed project site, including a 1958 roadside plaque commemorating the 1804 Rancho San Francisco and Southern California Edison’s (SCE) Big Creek East and West Transmission Line.

The Old Road Bridge, constructed in 1931, is a potential historic resource under CEQA. As such, The Old Road Bridge has been recorded on a California Department of Parks and Recreation cultural resource site record form. This form is appended to this IS/MND as Appendix C1. Below is a summary of the bridge and associated significance findings provided in the cultural resource site record form.

The box girder bridge, constructed of concrete, spans 247 feet long and has a 35-foot-wide deck, and features a two-lane roadbed. The bridge has low, cast-in-place concrete balustrades with minimalist arch and bevel detailing that flare outward before they terminate at either end. It is supported by squared concrete piers under the bridge, and board-form concrete abutments. Some of the squared piers appear to have been replaced with cylindrical-form concrete piers, and some applied concrete patches cover spalling episodes and the introduction of modern materials such as a metal pipeline. There are a few vertical cracks through the balustrade concrete forms. The roadbed has had several apparent resurfacing episodes but does not appear to have any other alterations.

The bridge was part of United States (U.S.) Route 99 and part of “The Old Road” or El Camino Viejo, the Spanish-era road connecting the Los Angeles basin to the San Joaquin Valley via the Sierra Pelona Mountains. In 1895, the state formed the Bureau of Highways, taking control over many of the unpaved trails and toll roads in California. El Camino Viejo came under the Bureau of Highways’ jurisdiction in 1910 after voters passed an \$18 million bond to connect California and Oregon. El Camino Viejo was named State Route 99, then U.S. Route 99 in 1926. El Camino Viejo served as the main road from Los Angeles to Bakersfield until 1928, when the San Francisquito Dam disaster and subsequent flood damaged several downstream bridges and road sections. The Old Road Bridge (53C1403) was constructed in 1931 and was therefore not affected by the 1928 flood or the associated repairs. Between 1936 and 1959, new engineering technology and federal funding made bridge construction and replacement feasible, connecting local communities and contributing to the expanding state economy. A system of federally funded interstate highways had been planned through the country since the late 1930s, and the Federal-Aid Highway Act of 1956 solidified the beginning of the interstate highway system in America. Interstate 5 was one of these highways and was created in 1956, taking over extant sections of U.S. Route 99 while the freeway segments were constructed between 1956 and 1979. U.S. Route 99 was decommissioned in 1964 (Caltrans 2016b; JRP 2003; USGS Castaic Quadrangle 1931).

The Old Road Bridge was originally evaluated by Caltrans as part of their original 1986 statewide historic bridge inventory and given a historic status code 5 rating, indicating that the resource was ineligible for the National Register of Historic Places (NRHP) (Caltrans 1986). Despite the historic nature of the El Camino Viejo segment which the bridge is situated in, the bridge’s 1931 construction date confirms that it has no connection to important historic events, including Spanish-era history and the early period of state highway bureau development. Nor is it related to the later period of federal funding for highway development, bridge construction, or the eventual passage of the 1956 Federal-Aid Highway Act. The bridge would also not be eligible for the California Register of Historical Resources (CRHR), as it does not meet any of the significance criteria. It has not made a significant contribution to the broad patterns of local or regional history in California, nor is it associated with the life of an important local or state person. Similarly, the bridge is not eligible for the CRHR for embodying a distinctive architectural type, period, region, or method of construction. The bridge type, period of construction, and architectural details are ubiquitous to 2-lane road bridges constructed in the 1930s. The bridge lacks the distinctive artistic detailing of the ornate Art Deco bridges seen elsewhere in Los Angeles County and does not have the requisite integrity to convey significance under this criterion due to multiple structural and superficial repairs. Finally, the bridge does not have the potential to yield important prehistoric or historical information about the local area.

Los Angeles County also has criteria for designation of landmarks and historic districts for resources in unincorporated Los Angeles County. As mentioned above, the bridge is not associated with important state or local historical events; is not associated with important state or local people; is not a unique example of

architectural design, style, or method of construction, and lacks the integrity necessary to convey significance; and will not yield important prehistory or history information. Additionally, it is also not eligible for the Los Angeles County Landmark designation because of its ineligibility for the NRHP and CRHR, and it is not a tree or landscape historically significant to the County. Thus, the bridge is not considered eligible to be a Los Angeles County historical landmark or historic district.

In summary, The Old Road Bridge is not eligible for listed on the NRHP, CRHR, or the County of Los Angeles Register of Landmarks and Historic Districts; and, as such, is not considered an historical resource as defined in §15064.5. Due to the fact that no historical resources are present on the proposed project site or in the immediate vicinity, the proposed project would have a less than significant impact on historical resources.

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. The CHRIS records search identified three previously recorded cultural resources within one mile of the proposed project site, none of which are within the proposed project site. Of the three resources identified within the one-mile records search buffer, one is a prehistoric isolate and two are built environment resources. A prehistoric isolate comprised of a single red chert projectile point (P-19-100028) was identified in 1993 by Brian D. Dillon approximately 1,000 feet north of the proposed project site on the west bank of Castaic Creek. Because archaeological isolates are not eligible as significant resources under the CRHR or NRHP, the proposed project would not cause a substantial adverse change in the significance of an archaeological resource. The records search results are appended to this IS/MND as confidential Appendix C2.

Dudek contacted the Native American Heritage Commission (NAHC) on March 19, 2019, to request a search of the Sacred Lands file (SLF), which was completed with negative results on April 5, 2019. The NAHC included a contact list of 19 Native American individuals and/or tribal organizations who may have knowledge of cultural resources in or near the proposed project site with the results of the SLF. Dudek sent letters via certified mail to each representative on August 13, 2019. This outreach was conducted for informational purposes only and does not constitute formal government-to-government consultation under Assembly Bill (AB) 52. To date, two responses have been received. One tribe (the Gabrieleno Band of Mission Indians-Kizh Nation) requested via email the lead agency's contact information. For further information regarding government-to-government consultation under AB 52, see Section 3.18 of this IS/MND. The other tribe (the Barbareno/Ventureno Band of Mission Indians) stated in a voicemail that they do not have any concerns regarding the project. As such, based on Native American outreach, no Tribal Cultural Resources were identified on the project site. See Appendix C3 for details on Native American coordination.

In addition to the CHRIS records search and the SLF search, Dudek reviewed a geotechnical report prepared for the proposed project site, which involved three geotechnical borings with depths ranging from 51 feet to 95 feet below the existing ground surface (MCE Group 2004). Two of the three geotechnical boring locations identified the upper 10 feet of soils as possibly fill materials. Given that the proposed project's construction activities include approximately 7 feet of soil excavation, the likelihood of encountering subsurface archaeological deposits is low.

The proposed work area and construction staging areas were surveyed on May 9, 2019, and September 4, 2020. No new archaeological resources were identified as a result of intensive-level pedestrian surveys. Undeveloped portions of the proposed project site are situated within the active Castaic Creek and are therefore subject to periods of heavy flow. These flooding episodes would most likely have displaced, buried, or destroyed archaeological resources within the creek. A survey of the staging areas determined that these areas have been subject to a series of previous ground disturbances for underground utilities, including water, electrical, and gas. In addition to these underground utilities, a transmission line that parallels The Old Road, along the eastern boundary of the staging areas, was also observed.

Based on the results of the records searches, geotechnical report, and the disturbances identified during the surveys, the potential of encountering any intact archaeological resource on the surface or at shallow depths within the proposed project site is considered low. However, there remains some potential for the presence of deeper subsurface archaeological resources, which could potentially be uncovered during excavation. Implementation of mitigation measure MM-CUL-1 would reduce potential impacts pertaining to the inadvertent discovery of archaeological resources to a less than significant level.

MM-CUL-1 In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the California Environmental Quality Act (14 CCR 15064.5(f); California PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under the California Environmental Quality Act, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery, may be warranted.

With implementation of MM-CUL-1, impacts to archeological resources would be less than significant with mitigation incorporated.

c) *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?*

Less Than Significant Impact. No prehistoric or historic burials were identified within the immediate vicinity of the proposed project site through the CHRIS records search, NAHC SLF search, or pedestrian survey. The project site is within a seasonal creek, a roadway ROW, and adjacent roadway shoulders. The creek experiences periods of heavy flow and as such, the likelihood of encountering subsurface human remains within the immediate vicinity of the proposed project site is low. Additionally, geotechnical borings conducted within the proposed project site identified possible fill soils within the upper 10 feet. However, the construction plans for the proposed project would include approximately 7 feet of soil excavation and within an active creek, and geotechnical boring results can be variable. Therefore, the potential to encounter human remains is low. In the event that human remains are inadvertently encountered during construction activities, such resources would be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and the California Code of Regulations Section 15064.5(e). In accordance with these regulations, if human remains are

found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the project site or any nearby area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC within 24 hours. The NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant must then complete their inspection within 48 hours of being granted access to the site. The most likely descendant would then determine, in consultation with the property owner, the disposition of the human remains. Compliance with these regulations would ensure that impacts to human remains resulting from the proposed project would be less than significant.

3.6 Energy

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- 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. The service providers, supply sources, and estimated consumption for electricity, natural gas, and petroleum are discussed as follows.

Energy Overview

Electricity

Southern California Edison (SCE) is the utility provider within the project area. SCE provides electric services to 15 million customers, located within a 50,000 square-mile area in central, coastal, and southern California. According to SCE, customers consumed approximately 84 billion kilowatt-hours (kWh) of electricity in 2017 (CEC 2018a). SCE receives electric power from a variety of sources. According to the SCE Sustainability Report, 32% of SCE’s power came from renewable energy sources in 2017, including biomass/waste, geothermal, hydroelectric, solar, and wind sources (SCE 2018). Due to the state’s energy efficiency building standards and efficiency and conservation programs, California’s electricity use per capita has remained stable for more than 30 years, while the national average has steadily increased (CEC 2015).

Natural Gas

Southern California Gas (SoCalGas) serves the proposed project area. SoCalGas serves 21.6 million customers in a 20,000-square-mile service area that includes over 500 communities (SoCalGas 2018). In 2017 (the most recent year for which data is available), SoCalGas delivered 5,142 million therms of natural gas, with the majority going to residential uses (CEC 2018b). Demand for natural gas can vary depending on factors such as weather, price of electricity, the health of the economy, environmental regulations, energy-efficiency programs, and the availability of alternative renewable energy sources. Natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand.

Petroleum

Transportation accounts for the majority of California's total energy consumption (CEC 2018a). According to the EIA, California used approximately 672 million barrels of petroleum in 2016 (EIA 2018). This equates to a daily use of approximately 1.8 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 77 million gallons of petroleum per day, adding up to an annual consumption of 28 billion gallons of petroleum. However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce vehicle miles traveled.

Construction Energy Use

Electricity

Temporary electric power for as-necessary lighting and electronic equipment would be provided by SCE. The amount of electricity used during construction would be minimal, because typical demand would stem from electrically powered hand tools. The electricity used for construction activities would be temporary and minimal; therefore, proposed project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity. Impacts would be less than significant.

Natural Gas

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection "Petroleum." Any minor amounts of natural gas that may be consumed as a result of proposed project construction would be temporary and negligible and would not have an adverse effect; therefore, proposed project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas. Impacts would be less than significant.

Petroleum

Petroleum would be consumed throughout construction. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction. Transportation of construction materials and construction workers would also result in petroleum consumption. Heavy-duty construction equipment, vendor trucks, and haul trucks would use diesel fuel. Construction

workers would likely travel to and from the project area in gasoline-powered vehicles. Once construction activities cease, petroleum use from off-road equipment and transportation vehicles would end. Because of the short-term nature of construction and relatively small scale of the project, impacts would be less than significant.

Operational Energy Use

As discussed in Section 2 of this IS/MND, the proposed project would seismically retrofit The Old Road Bridge. Once construction is complete, operation and maintenance of the bridge would continue in a manner consistent with existing conditions. Thus, there would be minimal operational or maintenance activities associated with the proposed project. Therefore, the operational energy use associated with the project would be less than significant.

In summary, construction and operation of the proposed project would not result in potentially significant environmental impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources. Impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The proposed project would follow applicable energy standards and regulations during the construction phases. Worker vehicles would meet the applicable standards of Assembly Bill (AB) 1493 (vehicles manufactured 2009 or later) and, as a result, would likely consume less energy as fuel efficiency standards are increased and vehicles are replaced. As such, impacts related to the project’s potential to conflict with plans for renewable energy and energy efficiency would be less than significant.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) **Would the project 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.**

No Impact. The project site does not lie within an Alquist-Priolo Special Studies Zone. The closest such fault zone is located approximately 1.8 miles east-northeast of the project site, along the San Gabriel Fault Zone (CGS 1986, 1998, 2019). Additionally, the pre-Holocene (i.e., Quaternary) Holser Fault is located approximately 0.5 mile south of the project site (CGS 2010); however, this fault is not considered Holocene-active and is not zoned as an Alquist-Priolo Special Studies Zone. In addition, the project would not exacerbate the potential for fault rupture to occur. As such, the project would not directly or indirectly cause potential substantial adverse effects involving rupture of a known earthquake fault. No impacts would occur.

ii) **Strong seismic ground shaking?**

Less Than Significant Impact. The project site is located in a seismically active region of Southern California, which is subject to substantial hazards as a result of strong seismically induced ground shaking. Ground shaking due to earthquakes on the nearby San Gabriel Fault, or other regional faults, can be anticipated during the life of the structure. The project site is located in an area that will, on average, experience stronger earthquake shaking more frequently. This intense shaking can damage even strong, modern buildings (CGS 2016). However, design and construction of the

project would comply with provisions of the California Building Code and Caltrans seismic design protocol, including Caltrans Memo to Designers 20-1, *Seismic Design Methodology* (Caltrans 2010) and Memo to Designers 20-4, *Seismic Retrofit Guidelines for Bridges in California* (Caltrans 2016c). In addition, the project would not exacerbate the potential for seismic ground shaking to occur. Conversely, the project consists of seismic retrofits and would result in beneficial impacts with respect to ground shaking hazards. Therefore, the project would not directly or indirectly cause potential substantial adverse effects involving strong seismic ground shaking. Impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction occurs when shallow, loose, unconsolidated, fine- to medium-grained sediments, saturated with groundwater, are subjected to strong seismically induced ground shaking. Lateral spreading is the lateral movement of gently to steeply sloping, saturated soil deposits caused by liquefaction. The possibility of liquefaction occurring at any specific location is dependent on the intensity of the earthquake, shallowness of groundwater, and grain size, plasticity, relative density, and confining pressure of the soils. Liquefaction typically occurs when groundwater is located at a depth of 50 feet or less.

The project site is underlain primarily by alluvial sand, gravelly sand, and silty sands, with some cobbles and thin sandy silt layers. Based on geotechnical borings drilled at the site, groundwater is present at a depth of 12 feet to 27 feet. However, depending on the season, groundwater may be expected to rise to the creek bed level. Construction, irrigation, and numerous other man-made and natural influences occurring in nearby areas may also cause the depth to groundwater to fluctuate. Historic maps indicate periodic groundwater levels within five feet of the ground surface (MCE Group 2004). Based on generalized mapping by the California Geological Survey (CGS), the project is located in a potential liquefaction zone (CGS 1998). However, based on a site-specific geotechnical investigation (MCE Group 2004), potentially liquefiable soil layers beneath the site are limited to a very few discontinuous thin layers. Therefore, the overall potential for liquefaction-induced effects at the site, including lateral spreading and seismically induced settlement, is low. Seismically induced settlement is not expected to exceed 0.5 inches.

Regardless, design and construction of the project would comply with provisions of the California Building Code and Caltrans seismic design protocol, as discussed in Section 3.7(a)(ii). The project would not exacerbate the potential for seismically related ground failure, including liquefaction, to occur. Conversely, the project consists of seismic retrofits and would result in beneficial impacts with respect to ground shaking hazards, including liquefaction. Therefore, the project would not directly or indirectly cause potential substantial adverse effects involving seismically related ground failure, including liquefaction. Impacts would be less than significant.

iv) Landslides?

Less Than Significant Impact. The project site is located on relatively flat ground and not in proximity to hillsides susceptible to landslides. Project construction would include temporary excavations up to 7 feet deep, after which grout would be injected under the proposed footing pad to a depth of 10 feet below the bottom of the footing. The excavated soil would be backfilled and compacted. In

the absence of proper engineering, oversteepened temporary slopes constructed for the project could fail. However, temporary slopes would be sloped at appropriate angles and/or or shored in accordance with provisions of the California Building Code and Caltrans seismic design protocol, as discussed in Section 3.7(a)(ii). (The California Building Code includes measures for stabilization of temporary slopes during construction.) Therefore, the project would not directly or indirectly cause potential substantial adverse effects involving landslides. Impacts would be less than significant.

b) *Would the project result in substantial soil erosion or the loss of topsoil?*

Less Than Significant Impact. The proposed project would involve temporary disturbance of soils during construction, which could lead to short-term erosion and sedimentation of Castaic Creek. However, during construction, erosion control measures would be implemented for the proposed project pursuant to the *Los Angeles County Department of Public Works Construction Site Best Management Practices Manual* (Public Works 2010) and the state Construction General Permit. Construction site BMPs that would be installed include temporary sediment control, temporary soil stabilization, waste management and materials pollution control, and other non-stormwater BMPs. Once construction is complete, operations and maintenance of the bridge would continue in a manner consistent with existing conditions, and the construction site would be returned to pre-construction conditions. As such, there would be no permanent changes in conditions at the site as it relates to scour. Therefore, the seismic retrofits would not lead to or exacerbate long-term, operational soil erosion or loss of topsoil at the project site. Impacts related to soil erosion and loss of topsoil would be less than significant.

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. As previously described, the overall potential for liquefaction-induced effects at the site, including lateral spreading and seismically induced settlement, is low. Seismically induced settlement is not expected to exceed 0.5 inches. The project site is located on relatively flat topography not in proximity to hillsides susceptible to landslides.

Design and construction of the proposed project would comply with provisions of the California Building Code and Caltrans seismic design protocol, as discussed in Section 3.7(a)(ii). The proposed project would not exacerbate the potential for ground failure, slope failure, subsidence, or collapse. Conversely, the project consists of seismic retrofits and would result in beneficial impacts with respect to liquefaction, lateral spreading, slope failure, subsidence, and collapse. Therefore, impacts would be less than significant.

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?*

No Impact. Soil expansion and contraction occurs as a result of soil wetting and drying, respectively, in clay-rich soils. Based on borings drilled at the site, the site is underlain by loose silty sands, sands, and gravelly sands (MCE Group 2004). These soils are not conducive to expansion and contraction. As a result, no impact would occur.

- 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. The proposed project would include the seismic retrofit of an existing bridge and would not include septic tanks or alternative wastewater disposal systems. No impact would occur.

- f) **Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

Less Than Significant with Mitigation Incorporated. The project site is located within the central Transverse Ranges Geomorphic Province, which extends from Point Conception in the west to the San Bernardino Mountains in the east. The province also includes the San Gabriel, Santa Monica, and Santa Ynez Mountains and the offshore San Miguel, Santa Rosa, and Santa Cruz Islands (Norris and Webb 1990; CGS 2002; Fuller et al. 2015). This geomorphic province structure is east-west trending and is oblique to the normal northwest trend of coastal California. Regionally, the Transverse Ranges extend offshore west to include the continental shelf and offshore islands (Santa Cruz, Santa Rosa, and San Miguel) (Norris and Webb 1990; CGS 2002; Fuller et al. 2015). Regional mountain ranges in the Transverse Ranges Geomorphic Province include the San Bernardino Mountains in the east, which have been displaced to the south along the San Andreas Fault (CGS 2002), and the San Gabriel Mountains, which are situated just to the north of the project site. Geologically, these mountains are dominated by Cenozoic sedimentary and Mesozoic igneous rocks that have been folded and faulted by north-south compression that is squeezing the Transverse Ranges (Norris and Webb 1990; CGS 2002; Fuller et al. 2015).

According to geological mapping by Dibblee and Ehrenspeck (1996) at a scale of 1:24,000 and the paleontological records search through the Natural History Museum of Los Angeles County (LACM), the project site is underlain by Holocene (< 11,700 years ago) alluvial gravels (map unit Qg) that are flanked on the north and south by Holocene alluvium. Late Pleistocene (~ 126,000 years ago – 11,700 years ago) older alluvium (Qoa) and the Pliocene (~ 5.33 million years ago [mya] – 2.6 million years ago) and Pleistocene (~ 2.6 mya – 11,700 years ago) Saugus Formation (map unit QTs) is mapped less than one-quarter mile south-southeast of the project site (Dibblee and Ehrenspeck 1996; McLeod 2019).

A paleontological records search request was submitted to the LACM for the project site and a one-mile radius buffer on March 22, 2019, and the results were received on April 5, 2019. The LACM reported no vertebrate fossil localities from within project site; however, they did report fossil localities from older alluvial deposits outside the buffer. The nearest locality from older alluvium, LACM 5745, yielded specimens of mastodon (*Mammuth*) and horse (*Equus*) in the northern San Fernando Valley southeast of the project site (McLeod 2019). The LACM also reported three vertebrate fossil localities from the Saugus Formation from within, or just outside, the one-mile radius buffer. The closest locality, LACM 6062, yielded fossil specimens of alligator lizard (*Gerrhonotus*) and pocket gopher (*Thomomys*) from Hasley Canyon, due west of the project site. The LACM reported a fossil horse (*Equus*) from LACM locality 6063, which was recovered from a canyon located southwest of the project site. The final Saugus Formation locality, LACM 6871, produced fossil horse (*Equus*) and dog (Canidae) specimens (McLeod 2019). These specimens were collected west of San Francisquito Canyon, east-northeast of the project.

No paleontological resources were identified within the project area as a result of the institutional records search or desktop geological review, and the project site is not anticipated to be underlain by unique geologic features. While this area is underlain by Holocene sediments that are generally too young to contain significant paleontological resources, intact paleontological resources may be present below the Holocene alluvial sediments where older Pleistocene, sediments are anticipated. A geotechnical report for the project site reported an increase in the density of the sands between 5 feet and 15 feet below the ground surface, which could indicate Pleistocene sediments at depth (MCE Group 2004). Given the proximity of past fossil discoveries in Pliocene to Pleistocene sediments from this part of Los Angeles County and the potential for underlying, Pleistocene-age older alluvial deposits and/or Saugus Formation, the project area is highly sensitive for supporting paleontological resources below the depth of fill and Holocene alluvium. In the event that previously undiscovered, intact paleontological resources are located on site, ground-disturbing activities associated with construction would have the potential to destroy a unique paleontological resource or site, resulting in a potentially significant impact. However, upon implementation of MM-GEO-1, impacts would be reduced to below a level of significance. Impacts of the project are therefore considered less than significant with mitigation incorporated.

MM-GEO-1 In the event that paleontological resources (e.g., fossils) are unearthed during grading, the County of Los Angeles Department of Public Works or its contractor shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The paleontologist will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the paleontologist will remove the rope and allow grading to recommence in the area of the find.

With implementation of MM-GEO-1, impacts to paleontological resources would be less than significant with mitigation incorporated.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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. Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (see also 14 CCR 15364.5). The three GHGs evaluated herein are CO₂, CH₄, and N₂O. Emissions of HFCs, PFCs, SF₆, and NF₃ are generally associated with industrial activities such as the manufacturing of electrical components, heavy duty air conditioning units, and insulation of electrical transmission equipment (substations, power lines, and switch gears.). Therefore, emissions of these GHGs were not evaluated or estimated in this analysis because the project would not include these activities or components and, therefore, would not generate HFCs, PFCs, SF₆, and NF₃ in measurable quantities.

Gases in the atmosphere can contribute to climate change both directly and indirectly.⁷ The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons of CO₂ equivalent (MT CO₂e). Consistent with the RCEM, this GHG emissions analysis assumed the GWP for CH₄ is 25 (emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂), and the GWP for N₂O is 298, based on the Intergovernmental Panel on Climate Change Fourth Assessment Report (IPCC 2007).

As discussed in Section 3.3 of this IS/MND, the project is located within the jurisdictional boundaries of the SCAQMD. In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008). This document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an

⁷ Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017b).

interim 10,000 MT CO₂e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (SCAQMD Resolution No. 08-35, December 5, 2008).

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

- Tier 1.** Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.
- Tier 2.** Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.
- Tier 3.** Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO₂e per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO₂e per year), commercial projects (1,400 MT CO₂e per year), and mixed-use projects (3,000 MT CO₂e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO₂e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.
- Tier 4.** Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO₂e per-service population for project-level analyses and 6.6 MT CO₂e per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.
- Tier 5.** Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Section 15064.7(c) of the CEQA Guidelines specifies that “[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.” The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency’s discretion to determine the appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

To determine the project’s potential to generate GHG emissions that would have a significant impact on the environment, the project’s GHG emissions were compared to the non-industrial land project quantitative threshold of 3,000 MT CO_{2e} per year. Because the project would not include operational sources of emissions, and because the project would not conform to the standard land use types, the 3,000 MT CO_{2e} per year threshold, which was identified under Tier 3 Option 1, was applied herein. Per the SCAQMD guidance, construction emissions should be amortized over the operational life of the project, which is assumed to be 30 years (SCAQMD 2008). This impact analysis, therefore, compares amortized construction emissions to the proposed SCAQMD threshold of 3,000 MT CO_{2e} per year.

Construction Emissions

Construction of the project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road trucks, and worker vehicles. A depiction of expected construction schedules (including information regarding phasing, equipment used during each phase, truck trips, and worker vehicle trips) assumed for the purposes of emissions estimation is provided in Table 3.3-1 and in Appendix A. On-site sources of GHG emissions include off-road equipment; off-site sources include trucks and worker vehicles. Table 3.8-1 presents construction GHG emissions for the project from on-site and off-site emissions sources.

Table 3.8-1. Estimated Annual Construction Greenhouse Gas Emissions

Year *	CO ₂	CH ₄	N ₂ O	CO _{2e}
	<i>metric tons per year</i>			
2021	143.13	0.02	0.01	146.33
Amortized Construction Emissions				4.88

Source: See Appendix A for complete results.

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO_{2e} = carbon dioxide equivalent.

* As noted in Section 3.3, construction is expected to begin in 2024. However, the GHG emissions analysis assumes an earlier start date (2021). Using an earlier start date represents a worst-case scenario for GHG emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

As shown in Table 3.8-1, the estimated total GHG emissions in 2021, would be approximately 146 MT CO_{2e}. Amortized over 30 years, construction GHG emissions would be approximately 5 MT CO_{2e} per year. In addition, as with project-generated construction criteria air pollutant emissions, GHG emissions generated during proposed construction activities would be short term, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operational Emissions

Once project construction is complete, the bridge would be maintained and used in a manner consistent with existing conditions. No changes in operations would occur as a result of the proposed project.

As shown in Table 3.8-1, amortized project-generated construction emissions would not exceed the 3,000 SCAQMD threshold. Therefore, GHG emissions impacts would be less than significant.

b) *Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less Than Significant Impact. The proposed project would result in less than significant impacts related to conflicts with GHG emission reduction plans, for the reasons described below.

Consistency with CARB's Scoping Plan

The CARB Scoping Plan, approved by CARB in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.⁸ Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. The project would not conflict with implementation of the measures identified in the Scoping Plan that would reduce GHG emissions.

Consistency with the Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy

SCAG's RTP/SCS is a regional growth-management strategy that targets per capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region. The RTP/SCS incorporates local land use projections and circulation networks in city and county general plans. The RTP/SCS is not directly applicable to the project because the purpose of the plan is to provide direction and guidance by making the best transportation and land use choices for future development. Furthermore, the project would not result in an increase in vehicle trips within the project area. Therefore, the project would not conflict with implementation of the strategies identified in the RTP/SCS that would reduce GHG emissions.

Consistency with Executive Order S-3-05 and Senate Bill 32

The proposed project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in Executive Order S-3-05 and Senate Bill (SB) 32. Executive Order S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

⁸ The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that “California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32” (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states that the level of reduction is achievable in California (CARB 2014). CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and Executive Order S-3-05. This is confirmed in the *2017 Scoping Plan*, which states (CARB 2017b):

The Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.

The proposed project would not interfere with implementation of any of the previously described GHG reduction goals for 2030 or 2050 because the project would not exceed the SCAQMD’s recommended threshold of 3,000 MT CO_{2e} per year (SCAQMD 2008). Because the project would not exceed the threshold, this analysis provides support for the conclusion that the project would not impede the state’s trajectory toward the previously described statewide GHG reduction goals for 2030 or 2050.

The project’s consistency with the state’s Scoping Plan would assist in meeting the City’s contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB 32 and Executive Order S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet the SB 32 40% reduction target by 2030 and the Executive Order S-3-05 80% reduction target by 2050. This legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the trajectory toward meeting these future GHG targets.

Based on the considerations previously outlined, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts would be less than significant.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site that 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This impact analysis is based on the findings of the Preliminary Environmental Site Assessment (ESA) conducted by Dudek and included as Appendix D.

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. Relatively small amounts of commonly used hazardous substances such as gasoline, diesel fuel, lubricating oil, adhesive materials, grease, and solvents would be used during construction. These materials are not considered acutely hazardous and are used routinely for construction projects and structural improvements. Further, these materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. Consequently, use of these materials for their intended purpose would not pose a significant risk to the public or environment. Once construction has been completed, fuels and other petroleum products would no longer remain within the work area. Operation of the proposed project would not require the routine transport, use, storage or disposal of hazardous substances. Impacts would be less than significant.

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?*

Less Than Significant with Mitigation Incorporated. Based on the findings of the Preliminary ESA (Appendix D), there is the potential for the following hazardous materials to be located on the project site:

- Aerially deposited lead (ADL) in soils along the roadway in concentrations above hazardous waste levels;
- Asbestos-containing materials in the existing building materials of the bridge; and
- Lead and chromium in the yellow stripe paint and thermoplastic stripes used on the roadway, which, if removed, could be classified as hazardous waste.

Operation of the proposed project would not disturb soils beneath the bridge or the bridge building materials. Therefore, potential risks associated with the above-mentioned potentially hazardous materials would be limited to construction.

Aerially Deposited Lead

Construction of the proposed project would include excavation of approximately 7 feet of soil around the existing concrete pile extensions at each pier, and excavated soils would be backfilled and compacted. This excavation would disturb surface soils, which have the potential to contain high concentrations of lead. However, in accordance with MM-HAZ-1, soil sampling would be completed prior to excavation to determine the lead levels in soils. If lead is identified in the soil, soils would be managed in accordance with MM-HAZ-2.

Asbestos and Lead

Construction of the proposed project would consist of retrofits to the existing bridge, including potential re-paving. There would be a potential for disturbance of hazardous building materials, if present, and subsequent exposure to workers, nearby public, and the environment. MM-HAZ-1 requires a hazardous material survey to be conducted to determine if hazardous materials are present in the existing building materials on the project site. With the implementation of MM-HAZ-1 and MM-HAZ-2 and compliance with all applicable federal, state, and local regulations, the potential for the proposed project to create a significant hazard to the public or environment due to release of hazardous materials into the environment is low.

Construction Dewatering

Dewatering may be required during construction, if groundwater is encountered during excavation. If groundwater is encountered, it is expected to be discharged to surface waters. In the event that contamination is present in the groundwater (see Section 3.9(d) for details), discharge could release hazardous materials to the environment. However, dewatering would occur under a dewatering permit issued by the Los Angeles RWQCB. Compliance with permit requirements would ensure that pollutants are not introduced to Castaic Creek, and implementation of MM-HAZ-3 (set forth in Section 3.9(d)) would ensure that construction worker health is not adversely effected from exposure to potential groundwater contamination.

Construction Chemicals

Construction activities can result in spilled or leaked petroleum products. However, construction site BMPs implemented per the *Los Angeles County Department of Public Works Construction Site Best Management Practices Manual* and the state Construction General Permit would preclude leaked or spilled chemicals from exiting the construction area. Any spills or leaks would be quickly contained and cleaned up pursuant to federal, state, and local laws.

MM-HAZ-1 Prior to construction, the Los Angeles County Department of Public Works will conduct a field Environmental Site Assessment (ESA) at the project site. The ESA will identify any hazardous materials that are present on the project site, including asbestos, lead-based paint traffic striping, lead coatings on utilities underneath the bridge structure, and aerially deposited lead that may be along the roadway shoulders and bridge approaches/abutments. Such materials, if present, will be characterized in the ESA. Should these materials be present, contract specifications for the Los Angeles County Department of Public Works' construction contractor will incorporate any abatement procedures for the removal of material containing asbestos or lead- and lead chromate-based paint. If lead is present in soils and will be affected by the project, the procedures outlined in MM-HAZ-2 will be implemented. Materials will be abated in accordance with local, state, and federal requirements, or construction will be conducted in such a manner as to eliminate the potential to disturb the identified materials. Applicable regulations include, but are not limited to, those of the Environmental Protection Agency (which regulates disposal), Occupational Safety and Health Administration, California Occupational Safety and Health Administration (which regulates employee exposure), and the South Coast Air Quality Management District.

MM-HAZ-2 Should total lead concentrations in soil samples exceed 80 milligrams per kilogram, and if this soil will be affected by the project, the soil will be removed and disposed of as a Special Excavation Criteria Area (SECA). All appropriate health and safety precautions will be in effect under the SECA, including engineering controls to limit airborne exposure. If disposal is required, handling, storage, transportation, and disposal of the -contaminated soils shall be conducted in accordance with local, state, and federal requirements to prevent exposure to human health or the environment.

Upon implementation of MM-HAZ-1 and MM-HAZ-2, impacts involving release of hazardous materials to the environment would be less than significant with mitigation incorporated.

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?***

Less Than Significant with Mitigation Incorporated. Live Oak Elementary, 22715 Saddleridge Way, is located approximately 0.2 miles west of the project site. As discussed in Section 3.9(a), project construction would involve relatively small amounts of commonly used hazardous substances such as gasoline, diesel fuel, lubricating oil, grease, adhesive materials, and solvents. In the event of an accidental release of fuels, oils, lubricants, or other hazardous materials associated with construction, hazardous emissions could occur within a quarter mile of a school. However, all spills would be quickly contained and cleaned up

pursuant to federal, state, and local laws. Potential effects would only occur during construction activities, which would be temporary and localized. Hazardous substances would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. Use of these materials for their intended purpose and in accordance with applicable safety laws would not pose a significant risk to nearby schools. As discussed in Section 3.9(b) and 3.9(d), MM-HAZ-1, MM-HAZ-2, and MM-HAZ-3 are in place to prevent upset or accident conditions involving the release of hazardous materials. Operation of the proposed project would not require the use, storage, or disposal of hazardous substances. Impacts would therefore be less than significant with mitigation incorporated.

- d) ***Would the project be located on a site that 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. As discussed in the Preliminary ESA (Appendix D), multiple sites were identified as hazardous materials sites within a one-mile radius of the project site. Table 1 of the Preliminary ESA (Appendix D) details listings adjacent to the project site and listings that may impact the environmental conditions of the proposed project, based on distance from the project site, known groundwater gradients, and status of the identified listing. While the proposed project site is not on a list of hazardous materials sites per Government Code 65962.5, an adjacent site was determined to pose a potential environmental concern for the proposed project:

A Leaking Underground Storage Tank (LUST) at the former Dixie Diesel Truck Stop resulted in soil and groundwater contamination. While the site received regulatory closure in 1993, contamination remained on the site. As the site is adjacent to the project site to the north, and groundwater reportedly flows southward, there is a potential for this contamination to impact the project site.

Operation of the proposed project would not change the current land use as a public roadway. No buildings would be constructed, and excavations would be backfilled. Therefore, impacts would be limited to the construction phase.

Proposed construction would consist of seismic retrofits to The Old Road Bridge and would include approximately 7 feet of soil excavation near the existing concrete pile extensions at each pier. In the Dixie Diesel Truck Stop (Dixie) LUST files, groundwater was reported between 8 feet and 19 feet below ground surface. Therefore, groundwater could be encountered during construction. Groundwater flow is southward; as such, potential contaminants from the Dixie site could migrate toward the project site. As the proposed excavations would occur along Castaic Creek, there is a potential for workers to be exposed to contaminated groundwater and for release of contaminants to Castaic Creek.

Upon regulatory closure in 1993, the groundwater beneath the Dixie site had concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX) at 5, 22, 5, and 30 micrograms per liter ($\mu\text{g/L}$), respectively. While the remaining BTEX contamination observed in 1993 are likely to have naturally degraded over time, this has not been confirmed. Therefore, it is conservatively assumed for the purpose of this analysis that the concentrations observed in 1993 are still present. The remaining contamination levels have been compared to existing applicable regulatory screening levels, including the Environmental Screening Levels (ESLs) developed by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). The ESLs provide multiple screening levels, based on the potential exposure criteria, including direct exposure,

aquatic habitat, vapor intrusion, and odor nuisance. As buildings and site occupancy are not part of the proposed project, vapor intrusion is not a potential exposure route. Therefore, the potential exposure routes for the project site are aquatic habitats and direct exposure to construction workers. The 1993 BTEX concentrations at the Dixie site are compared to the applicable ESLs in Table 3.9-1.

Table 3.9-1. Site-Specific Screening Levels vs Potential Contamination Levels in Groundwater (µg /L)¹

Contaminant	Maximum Detected Concentration, 1993	Aquatic Habitats	Inhalation ²	Dermal Contact ²
Benzene	5	46	0.19	5.2
Toluene	22	130	No level	No level
Ethylbenzene	5	290	2.2	12
Xylenes	30	No level	No level	No level

Source: Appendix D

Notes:

- ¹ This evaluation is solely for evaluation purposes for this IS/MND and does not necessarily indicate the cleanup screening levels that a regulatory agency may require.
- ² Table GW-1: Groundwater Direct Exposure Human Health Risk Screening Levels, age-adjusted cancer risk, Environmental Screening Levels, SFBRWQCB 2019.

Based on this evaluation, the 1993 residual groundwater contamination levels were above exposure levels for inhalation and skin contact and, therefore, could cause a hazard to construction workers exposed to groundwater. Implementation of MM-HAZ-3 would reduce potential effects to below a level of significance. It does not appear that the potentially remaining contamination would cause a significant hazard to the nearby creek. However, construction of the proposed project would be required to adhere to federal, state, and local regulations, including the requirements of the Los Angeles RWQCB construction dewatering permit. Impacts would be less than significant with mitigation incorporated.

MM-HAZ-3 The County of Los Angeles Department of Public Works or its construction contractor(s) shall implement appropriate health and safety procedures to ensure protection of workers from potential groundwater contaminants, in the event that groundwater is encountered during construction. These procedures can be incorporated into the contractor’s existing health and safety plan. The health and safety procedures shall consider potential exposure to construction workers to contaminated groundwater, including potential inhalation and dermal contact, and incorporate appropriate measures to reduce or eliminate exposure and protect human health. Examples of these procedures include requirements to use appropriate personal protective equipment (e.g., gloves, booties), decontamination of equipment after use, and breathing zone air monitoring. The health and safety procedures will adhere to federal, state, and local regulations and requirements regarding worker safety and exposure. The health and safety procedures will also include proper worker training.

Upon implementation of MM-HAZ-3, impacts related to hazardous materials sites would be less than significant with mitigation incorporated.

- 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?*

No Impact. The project site is not located within a two-mile radius of any public airport. The project site is located approximately 17 miles west of the nearest airport, Agua Dulce Airport. According to the Los Angeles County Airport Land Use Commission, the project site is not located within the airport influence area of Agua Dulce Airport or other airports (L.A County ALUC 2004). Therefore, the proposed project would not create an airplane safety hazard or result in excessive noise for people residing or working in the project area, and no impact would occur.

- f) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact. Los Angeles County's Office of Emergency Preparedness is responsible for organizing emergency preparedness, response, and evacuation plans. In addition, the Los Angeles County Department of Public Works designates disaster routes (County of Los Angeles 2010). The disaster route map for the Santa Clarita area identifies The Old Road, including the project site, as a secondary disaster route. The adjacent I-5 freeway is the primary disaster route. No complete road closures over The Old Road Bridge would occur during construction activities. While partial lane closure would occur, the closure would be temporary, and two-way travel across the bridge would still be possible. As such, emergency vehicles would still be able to travel across the bridge during construction, and evacuation across the bridge would still be possible. Furthermore, in the event of any constraints to evacuation across the bridge, the adjacent I-5 freeway would provide an alternate route that has additional capacity. Construction signage and construction workers with flags would be provided near the partial lane closure as necessary to divert traffic and ensure safety. Therefore, interference with the adopted emergency response plan or emergency evacuation plans would not occur, and impacts would be less than significant.

- 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 with Mitigation Incorporated. The project site and surrounding areas are located within a Very High Fire Hazard Severity Zone (VHFHSZ) (CalFIRE 2007). Project activities would not involve the construction or operation of habitable structures in wildland areas or promote new development in wildland areas. However, project activities have the potential to increase the risks associated with wildfire due to the presence of construction equipment on or near the naturalized area below The Old Road Bridge, including leaks from heavy equipment, the use of flammable liquids, and presence of combustion engines, among others.

In order to minimize wildfire-related risks, the proposed project would implement MM-HAZ-4, which would entail the preparation of a Fire Protection Plan. MM-HAZ-4 would reduce the circumstances in which a fire could occur as a result of the proposed project. Therefore, with implementation of MM-HAZ-4, impacts associated with wildfire hazards associated with project activities would be less than significant with mitigation incorporated.

MM-HAZ-4 Prior to commencement of any construction activities, a Fire Protection Plan shall be prepared that includes emergency reporting procedures; emergency notification,

evacuation, and/or relocation of all persons on site; procedures for “hot work” operations; management of hazardous materials and removal of combustible debris; maintenance of emergency access roads; identification of exit routes and assembly areas; and identification of fire apparatus. The Fire Protection Plan shall be distributed to involved parties at least two weeks prior to commencement of any construction activities.

Upon implementation of MM-HAZ-4, impacts involving wildfire hazards would be less than significant with mitigation incorporated.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 Impact. Proposed project construction would result in temporary exposure of soil, which could result in short-term erosion and sedimentation of Castaic Creek. In addition, water quality impacts could occur if construction activities resulted in spilled or leaked petroleum products and/or entrainment of sediment, debris, or other construction-related materials into stormwater runoff.

During construction, erosion control measures would be implemented for the proposed project and BMPs would be put in place to control any construction-related pollutants, per state and County requirements, including the *Los Angeles County Department of Public Works Construction Site Best Management Practices Manual* (Public Works 2010) and the state Construction General Permit. Applicable BMPs include temporary sediment control, temporary soil stabilization, waste management and materials pollution control, and other non-storm water BMPs. A menu of BMPs would be included in the construction specifications for the project's construction contractor. Additionally, the contractor would use a BMP inspection plan and checklist, with inspections occurring at a minimum of once per week, within 48 hours prior and after a qualifying rain event (more than 0.5 inches of precipitation), and at least once every 24 hours during extended precipitation events during project construction. Implementation of these BMPs would effectuate compliance with the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit (National Pollutant Discharge Elimination System [NPDES] No. CAS004001 and Los Angeles RWQCB Order No. R4-2012-0175, as amended), as well as the state Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014-DWG).

Dewatering may be required during construction, if groundwater is encountered during excavation. If groundwater is encountered, it is expected to be discharged to surface waters. In the event that contamination is present in the groundwater (see Section 3.9(d) for details), discharge could release hazardous materials to the environment, which could affect water quality. However, dewatering would occur under a dewatering permit issued by the Los Angeles RWQCB. The project would be required to comply with the waste discharge requirements specified in the dewatering permit. Compliance with these requirements would ensure that pollutants are not introduced to Castaic Creek.

Upon compliance with state and County requirements for construction site BMPs and stormwater management, the Los Angeles County MS4 Permit, and waste discharge requirements from the dewatering permit (if groundwater is encountered), the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Impacts would be less than significant.

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?***

No Impact. A project would have the potential to deplete groundwater supplies if it would result in increased water usage from groundwater sources to the extent that such sources would be compromised. The project could also have an adverse effect on groundwater if it would prevent water from infiltrating into the ground and replenishing groundwater supplies. However, the proposed project would not increase water usage from groundwater sources such that groundwater sources would be compromised, nor would the project interfere with infiltration, relative to existing conditions.

During construction, dewatering may occur if groundwater is encountered during soil excavation activities. However, dewatering would be temporary, highly localized, limited to the construction period, and would not occur in quantities that could substantially deplete groundwater supplies.

In addition, no change in impervious surfaces would occur with the potential to change groundwater infiltration rates. Therefore, the project would not deplete groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management. No impacts would occur.

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:***

i) ***result in substantial erosion or siltation on or off site;***

Less Than Significant Impact. In order to seismically retrofit the existing bridge, the proposed project would include implementation of the following:

- Removal of unsound concrete at the pile extensions and replacement of concrete where necessary.
- Retrofitting of the existing concrete foundation.
- Driving of steel micro piles at the piers.
- Construction of infill walls and foundations.
- Construction of seat extenders and shear keys at the abutments and piers.

These bridge improvements would not substantially alter the existing drainage pattern of the site or area and would not alter the course of Castaic Creek. Bridge-related drainage design, including culverts, over-drains, and ditches, would maintain existing drainage patterns. Once construction is complete, operations and maintenance of the bridge would continue in a manner consistent with existing conditions, and the construction site would be returned to pre-construction conditions. As such, there would be no permanent changes in conditions at the site as it relates to scour. Therefore, the project would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion or siltation on- or off-site. Impacts would be less than significant.

ii) ***substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;***

Less Than Significant Impact. As discussed under Section 3.10(c)(i), proposed bridge improvements would not substantially alter the existing drainage pattern of the site or area and would not alter the course of Castaic Creek. Bridge-related drainage design, including culverts, over-drains, and ditches, would maintain existing drainage patterns and would not increase the amount of impervious surfaces or constrict creek flows. Based on a project-specific hydraulic analysis (Public Works 2016), a 100-year flood flow in Castaic Creek would not result in backwater damages to residences, other buildings, or crops. Therefore, the project would not substantially

increase the rate or amount of surface runoff, in a manner that would result in flooding on- or off-site. Impacts would be less than significant.

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

Less Than Significant Impact. As discussed under Section 3.10(c)(i) and (ii), proposed bridge improvements would not substantially alter the existing drainage pattern of the site or area. The proposed project would not result in an increase of impervious surfaces or otherwise increase stormwater runoff from the project site. As such, the proposed project would not have the potential to create or contribute to runoff water in excess of the stormwater drainage system capacity. As described in Section 3.10(a), the project has some potential to introduce pollutants to runoff during construction (e.g., sediments, spilled or leaked construction-related chemicals, and contaminated groundwater). However, through implementation of the construction site BMPs and permit requirements described in Section 3.10(a), the potential contaminants would be contained and prevented from entering stormwater runoff to the extent feasible. Once construction is complete, operations of the bridge would continue in a manner consistent with existing conditions. The proposed project would not have the potential to alter runoff or runoff pollutants during operations. For these reasons, impacts would be less than significant.

iv) impede or redirect flood flows?

Less Than Significant Impact. The project site is located within a 100-year flood zone. Proposed bridge improvements would not substantially alter the existing drainage pattern of the site or area and would not alter the course of Castaic Creek. Bridge-related drainage design, including culverts, over-drains, and ditches, would maintain existing drainage patterns and would not constrict, impede, or redirect creek flows. Based on a project-specific hydraulic analysis (Public Works 2016), a 100-year flood flow in Castaic Creek would not result in backwater damages to residences, other buildings, or crops. Therefore, the project would not impede or redirect flood flows. Impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less Than Significant Impact. Although the project is located in a flood zone, the project site is not located in an industrial area where spills of hazardous substances could occur. As a result, the project would not risk release of pollutants due to project inundation. Impacts would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. As discussed under Section 3.10(a), potential water quality impacts during construction would be addressed through implementation of construction site BMPs, as well as compliance with a construction dewatering permit, if warranted. During operation, no water quality impacts would occur. The proposed project would not obstruct existing water quality control plans or sustainable groundwater management plans. In addition, the proposed project would not introduce impervious areas over a groundwater recharge

zone. Therefore, no impacts would occur related to conflicts with a water quality control plan or sustainable groundwater management plan.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Would the project physically divide an established community?*

No Impact. A significant impact could occur if the proposed project included the construction of buildings, roads, or other infrastructure that would physically divide an existing community. As stated in Section 2 of this IS/MND, the proposed project consists of the seismic retrofit of The Old Road Bridge. Project construction would not include the construction of any buildings or infrastructure that would physically divide an existing community. Upon operation, The Old Road Bridge would function in the same way as under existing conditions. Given this, the proposed project would not physically divide an established community, and no impact would occur.

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?*

No Impact. The project site is located in the unincorporated community of Val Verde and lies within the County’s Castaic Area Community Standards District (CSD), the Santa Clara River SEA, and the planning area of the Santa Clarita Valley Area Plan.

Castaic Area Community Standards District

The CSD (Chapter 22.312 of the Los Angeles County Zoning Ordinance) serves to protect the rural character, unique appearance, and natural resources of the Castaic Area communities (Los Angeles County Department of Regional Planning 2019a). The CSD includes communitywide and zone-specific development standards. (Bridge projects are not addressed in these development standards.) The proposed project includes the seismic retrofit of The Old Road Bridge. Project construction would not include the construction of any buildings or infrastructure that would be subject to the development standards of the CSD. Upon operation, The Old Road Bridge would be maintained and used in a manner consistent with existing conditions. Given the above, the proposed project would not conflict with the Castaic Area CSD.

Santa Clara River Significant Ecological Area

The project site is located within the Santa Clara River SEA. Under Chapter 22.102.010 of the Los Angeles County Zoning Ordinance, a Conditional Use Permit (CUP) is required for development within SEAs in order to ensure that the project maintains and, where possible, enhances the remaining biotic resources within the SEA (Los Angeles County Department of Regional Planning 2019b). As described in Section 3.4 of this IS/MND, the proposed project would be exempt from requirements to obtain a CUP. As such, the proposed project would not conflict with SEA regulations.

Santa Clarita Valley Area Plan

The project site is located within the planning area of the Santa Clarita Valley Area Plan (Area Plan). The goals and policies in the Area Plan pertain to ensuring that development within the Santa Clarita Valley is consistent with existing land uses and the surrounding environment, as well as ensuring that development correlates to the area’s population growth trajectories (Los Angeles County Department of Regional Planning 1984). Given that the project would not include a residential aspect, or the construction of any additional buildings or infrastructure, the proposed project would be consistent where the Area Plan pertains to land use planning, housing, and population. The Area Plan also includes policies pertaining to the protection of natural resources and the environment, including policies pertaining to the protection of resources within SEAs. As stated above, the proposed project is located within the Santa Clara River SEA; however, the proposed project would be exempt from obtaining a CUP for construction within a SEA. Additionally, as shown in Section 3.4, the proposed project would have a less than significant effect on biological resources, upon incorporation of mitigation measures. The proposed project would not conflict with the Area Plan’s policies for the protection of natural resources and the environment, as it would not have significant effects to natural resources or to the environment. Given the above, the project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, no impacts would occur.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?***

No Impact. According to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) (renamed as the California Geologic Energy Management Division in 2020), the project site is located within the Honor Rancho Oil/Gas Field. Additionally, numerous plugged, abandoned, idle, and active oil and gas wells are located in close proximity to the project site (DOGGR 2018). The proposed project would include the seismic retrofit of The Old Road Bridge and would not include the construction of other buildings or infrastructure that would preclude current or future use of natural gas and oil wells. As such, the proposed project would not interfere with oil, gas, or geothermal resource production.

The Division of Mines and Geology (renamed the California Geological Survey in 2006) has mapped the Castaic Creek riverbed as Mineral Resource Zone 2 (MRZ-2) for sand and gravel resources. MRZ-2 is defined as an area “where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists” (California Department of Conservation 1987). The MRZ-2 zone associated with the project location does not currently support sand and gravel extraction activities. Additionally, the proposed project would not include additional buildings or infrastructure that would preclude the future extraction of these mineral resources. Given this, project implementation would not result in the loss of availability of a known mineral resource of value to the region and residents of the state. As such, the proposed project would have no impact to state or regionally important mineral resources.

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?***

No Impact. The County of Los Angeles’ General Plan maps the areas in and around the project site as Mineral Resource Areas. The General Plan establishes goals and policies pertaining to mineral resource conservation, including the protection of MRZ-2 zones, the permitting of uses within mineral resource zones, and the management of mineral resources in a manner that plans for access, development, and conservation of mineral resources for future generations (County of Los Angeles Department of Regional Planning 2015). As stated above in Section 3.12(a), the proposed project is located within the Honor Rancho Oil/Gas Field and within a sand and gravel MRZ-2 zone, identified within the Castaic Creek corridor. However, the proposed project would include the seismic retrofit of an existing bridge and would not include the construction of buildings or infrastructure that, upon operation, would preclude access to, or use of, any locally important mineral resources. As such, the proposed project would not interfere with oil, gas, or geothermal resource production and would not interfere with any potential future extraction of the sand and gravel resources within the Castaic Creek corridor. No impact to locally important mineral resource recovery would occur.

3.13 Noise

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Background Information for the Noise Analysis

Federal and state agencies regulate mobile noise sources by establishing and enforcing noise standards on vehicle manufacturers. Local agencies generally regulate stationary noise sources and construction activities to protect neighboring land uses and the public’s health and welfare. Noise-sensitive land uses include residences, hotels and motels, schools and universities, hospitals, and churches. The nearest noise-sensitive land uses to the proposed project site consist of a childcare facility, a church, and residences.

A brief background on the fundamentals of environmental acoustics is helpful in understanding how humans perceive various sound levels. Although extremely loud noises can cause temporary or permanent damage, the primary environmental impact of noise is annoyance. The objectionable characteristic of noise often refers to its loudness. Loudness represents the intensity of the sound wave, or the amplitude of the sound wave height measured in decibels (dB). Decibels are calculated on a logarithmic scale; thus, a 10 dB increase represents a 10-fold increase in acoustic energy or intensity, and a 20 dB increase represents a 100-fold increase in intensity. Decibels are the preferred measurement of environmental sound because of the direct relationship between a sound’s intensity and the subjective “noisiness” of it. The A-weighted decibel system (dBA) is a convenient sound measurement technique that weights selected frequencies based on how well humans can perceive them.

The range of human hearing spans from the minimal threshold of hearing (approximately 0 dBA) to that level of noise that is past the threshold of pain (approximately 120 dBA). In general, human sound perception is such that a change in sound level of 3 dBA in a normal setting (i.e., outdoors or in a structure, but not in an acoustics laboratory without background noise levels) is just noticeable, and a change of 5 dBA is clearly noticeable. A change of 10 dBA is perceived as a doubling (or halving) of sound level. Noise levels are generally considered low when they are below 45 dBA, moderate in the 45 dBA to 60 dBA range, and high above 60 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss if exposure is sustained.

Ambient environmental noise levels can be characterized by several different descriptors. Energy equivalent or energy average level (L_{eq}) describes the average or mean noise level over a specified period of time. L_{eq} provides a useful measure of the impact of fluctuating noise levels on sensitive receptors over a period of time. Other descriptors of noise incorporate a weighting system that accounts for human’s susceptibility to noise irritations at night. Community Noise Equivalent Level (CNEL) is a measure of cumulative noise exposure over a 24-hour period, with a 5 dBA penalty added to evening hours (7:00 p.m. to 10:00 p.m.) and a 10 dBA penalty added to night hours (10:00 p.m. to 7:00 a.m.). Since CNEL is a 24-hour average noise level, an area could have sporadic loud noise levels above 65 dBA, but the average could be lower over the 24-hour period.

Existing Noise Conditions

Currently, the project site and surrounding area is subject to high levels of traffic noise associated with adjacent roadways, in particular the adjacent I-5 freeway. Noise measurements were conducted on and near the project site in June 2019 to characterize the existing noise environment. The daytime, short-term (1 hour or less) staff-attended sound-level measurements were taken with a SoftdB Piccolo sound-level meter. This sound-level meter meets the current American National Standards Institute standard for a Type 2 (general purpose) sound-level meter. The calibration of the sound-level meter was verified before and after the measurements were taken, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Three noise measurement locations (ST1–ST3) that represent key potential sensitive receptors or sensitive land uses were selected near the project site. The measurement locations are shown in Figure 4, Noise Measurement Locations, and the measured average noise levels and measurement locations are provided in Table 3.13-1. Noise measurement data is also included in Appendix E of this IS/MND. The primary noise source at the measurement locations consisted of traffic along I-5. As shown in Table 3.13-1, the existing daytime ambient noise levels ranged from approximately 64 dBA L_{eq} at ST2 to 68 dBA L_{eq} at ST3.

Table 3.13-1. Measured Noise Levels

Receptors	Location/Address	Distance from Work Area	Date	Time	Leq (dBA)	Lmax (dBA)
ST1	27614 Buckskin Drive (Residential); rear yard property line	450 feet	June 4, 2019	9:51 a.m. – 10:06 a.m.	65.2	79.2
ST2	29421 The Old Road (Childcare/Preschool)	230 feet	June 4, 2019	10:19 a.m. – 10:34 a.m.	63.8	71.3
ST3	29457 The Old Road (Church)	360 feet	June 4, 2019	10:44 a.m. – 10:59 a.m.	68.3	78.2

Source: Appendix E

L_{eq} = equivalent continuous sound level (time-averaged sound level); L_{max} = maximum sound level during the measurement interval



SOURCE: LARIAC 2014; Open Street Map 2019

FIGURE 4
Noise Measurement Locations
 The Old Road Over Castaic Creek Project

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Regulatory Background

Federal

There are no federal noise regulations that are directly applicable to this project.

State

Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects

Pursuant to the Caltrans Traffic Noise Analysis Protocol (2011), construction noise is regulated by Caltrans Standard Specifications Section 14-8, "Sound Control Requirements," which states that noise levels generated during construction shall comply with applicable local, state, and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications. Section 14-8.02, Noise Control, of Caltrans standard specifications provides information that can be considered in determining whether construction would result in adverse noise impacts. The specification states:

- Do not exceed 86 dBA at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.
- 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.

If adverse construction noise impacts are anticipated, project plans and specifications must identify abatement measures that would minimize or eliminate adverse construction noise impacts on the community. When construction noise abatement is identified, Caltrans will consider the benefits achieved and the overall adverse social, economic, and environmental effects and costs of the construction noise abatement measures (Caltrans 2011b).

Local

The nearest noise-sensitive land uses are located within unincorporated areas of Los Angeles County. The County maintains the health and welfare of its residents with respect to noise through nuisance abatement ordinances and land use planning. The Los Angeles County Noise Control Ordinance, Title 12 of the County Code, was adopted by the Los Angeles County Board of Supervisors in 1977 "to control unnecessary, excessive, and annoying noise and vibration." This ordinance states that the purpose of the County policy is to "maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values" (Section 12.08.010 of the Los Angeles County Code).

The County amended Title 12 of the code to prohibit loud, unnecessary, and unusual noise that disturbs the peace and/or quiet of any neighborhood, or that causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area. Required modifications may include sound barriers, mitigation measures to reduce excessive noise, or changes to the placement and orientation of buildings. The ordinance also specifies the compatibility of different uses with varying noise levels, as shown in Table 3.13-2. Noise levels are measured at the property boundary of the receiving parcel. The zoning at the property boundaries surrounding the noise source dictates the level of noise allowed at that property boundary.

Table 3.13-2. Los Angeles County Municipal Code Noise Standards

Noise Zone	Designated Noise Zone Land Use (Receptor property)	Time Interval	Exterior Noise Level (dBA)
I	Noise-Sensitive Area	Anytime	45
II	Residential Properties	10:00 pm to 7:00 am (nighttime)	45
		7:00 am to 10:00 pm (daytime)	50
III	Commercial Properties	10:00 pm to 7:00 am (nighttime)	55
		7:00 am to 10:00 pm (daytime)	60
IV	Industrial Properties	Anytime	70

Source: Table reproduced from Section 12.08.390 of the Los Angeles County Code (a portion of the Noise Control Ordinance).

Section 12.08.440 of the Los Angeles County Code governs construction noise. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer, is prohibited. Construction contractors are required to conduct construction activities such that the maximum noise levels at affected residential buildings do not exceed those listed in Table 3.13-3 (for mobile equipment) and Table 3.13-4 (for stationary equipment). Table 3.13-3 shows the maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment. Table 3.13-4 shows the maximum noise levels for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment. Maximum noise levels at commercial buildings are specified for nonscheduled, intermittent, short-term operation of mobile equipment; noise from such sources must not exceed 85 dBA at commercial structures.

Table 3.13-3. Los Angeles County Municipal Code Construction Noise Standards (Mobile Equipment)

Day/Time	Single-Family Residential Land Uses	Multi-Family Residential Land Uses	Semi-Residential/Commercial Land Uses
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	75 dBA	80 dBA	85 dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60 dBA	64 dBA	70 dBA

Source: Table reproduced from Section 12.08.440 of the Los Angeles County Code (a portion of the Noise Control Ordinance).

Table 3.13-4. Los Angeles County Municipal Construction Code Noise Standards (Stationary Equipment)

Day/Time	Single-Family Residential Land Uses	Multi-Family Residential Land Uses	Semi-Residential/Commercial Land Uses
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	60 dBA	65 dBA	70 dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Source: Table reproduced from Section 12.08.440 of the Los Angeles County Code (a portion of the Noise Control Ordinance).

Section 12.08.570(A) specifically exempts the emission of sound for the purpose of alerting persons to the existence of an emergency, or the emission of sound in the performance of emergency work. Emergency work is defined as any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency (Section 12.08.140). Section 12.08.570(H) states that public health and safety activities are exempt from the provisions of the County’s Noise Control Ordinance. Specifically, all transportation, flood control, and utility company maintenance and construction operations occurring at any time within the public right-of-way (and those situations which may occur on private real property) deemed necessary to serve the best interest of the public and to protect the public’s health and wellbeing are exempt. Exempt activities include (but are not limited to) street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, snow removal, house moving, vacuuming catchbasins, removal of damaged poles and vehicles, repair of water hydrants and mains, gas lines, oil lines, sewers, etc. The proposed project would involve transportation maintenance for the purposes of public health, safety, and wellbeing. As such, the proposed project would be considered exempt from the construction noise provisions of the County’s Noise Control Ordinance. Nevertheless, Public Works and its construction contractor would reduce construction noise levels associated with the project to the extent practicable, as further described in the analysis below.

- 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. Potential noise impacts associated with the proposed project would consist of short-term construction activity noise. The proposed project, once constructed, would not result in additional noise from operation compared to existing levels, because the project would not result in an increase in traffic volumes, nor would stationary mechanical devices or equipment be installed as part of the project.

Construction Noise (Short-Term Impacts)

Construction noise and vibration are temporary phenomena. Construction noise and vibration levels vary from hour to hour and day to day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor.

Construction of the project is anticipated to last approximately 24 weeks. The construction phasing schedule and duration, vehicle trip assumptions, and construction equipment mix used for estimating the project-generated emissions are shown in Table 3.3-1.

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time each piece is in operation, condition of each piece of equipment, and the number of pieces that would operate on the project site. The typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet are presented in Table 3.13-5. Note that the equipment noise levels presented in Table 3.13-5 are maximum noise levels. Typically, construction equipment operates in alternating cycles of full power and low power, producing average noise levels less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 3.13-5. Construction Equipment Maximum Noise Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Air compressor	81
Backhoe	80
Compactor	82
Concrete mixer	85
Concrete pump	82
Concrete vibrator	76
Crane, mobile	83
Dozer	85
Generator	81
Grader	85
Impact wrench	85
Jackhammer	88
Loader	85
Paver	89
Pneumatic tool	85
Pump	76
Roller	74
Saw	76
Truck	88

Source: U.S. DOT 2018

The maximum noise levels at 50 feet for typical construction equipment would range up to 89 dBA for the type of equipment normally used for this type of construction project, although the hourly noise levels would vary. Construction noise in a well-defined area typically attenuates at approximately 6 dBA per doubling of distance.

The Federal Highway Administration’s (FHWA) Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest noise-sensitive receivers (the nearby church, the childcare facility, and the nearest residences). Although the model was funded and promulgated by the FHWA, the RCNM is often used for non-roadway projects, because the same types of construction

equipment used for roadway projects are also used for other project types. Input variables for the RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of hours the equipment typically works per day), and the distance from the noise-sensitive receiver. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis.

Using the FHWA’s RCNM construction noise model and construction information (types and number of construction equipment by phase), the estimated noise levels from construction were calculated for the distances to the nearest noise-sensitive receivers, as presented in Table 3.13-6. The RCNM inputs and outputs are provided in Appendix E.

Table 3.13-6. Construction Noise Model Results Summary

Construction Phase	Construction Noise at Representative Receivers (Leq dBA)		
	Nearest Residences	Childcare Facility	Church
Clearing / Demolition	64	69	65
Grading / Excavation	65	71	67
Construction	64	71	67

Source: Appendix E

Leq = equivalent continuous sound level

As presented in Table 3.13-6, the highest noise levels are predicted to occur during grading/excavation and construction activities, when noise levels would be as high as 71 dBA Leq at the nearest noise-sensitive receivers (the childcare facility), approximately 67 dBA Leq at the nearby church, and approximately 64 to 65 dBA Leq at the nearest residences. During other phases of construction, construction noise is estimated to range from approximately 64 to 69 dBA Leq.

Nearby noise-sensitive land uses would be exposed to somewhat elevated noise from project construction; ambient daytime noise levels at these locations ranged from 64 to 68 dBA Leq. The noise from construction would be short-term and intermittent throughout the allowable construction timeframe and would cease upon project construction. It is anticipated that construction activities associated with the proposed project would take place between 7:00 a.m. and 6:00 p.m. Monday through Friday, and would not take place on Sundays or federal holidays, in accordance with construction noise regulations set forth in the Los Angeles County’s Noise Control Ordinance. While the proposed project would be considered exempt from the Los Angeles County Noise Control Ordinance, as described above, Public Works would minimize construction noise to the extent practicable.

Construction noise levels would be higher than the existing ambient noise levels and could be considered potentially annoying at times. However, Public Works would include standard noise control BMPs in the contract for the project’s construction contractor. These specifications would ensure that construction noise would be reduced to the maximum extent practical. These construction BMPs would include the following:

1. Construction activities would not occur between the hours of 7:00 p.m. and 7:00 a.m. Monday through Saturday, and construction would not occur on Sundays or federal holidays.
2. Pumps and associated equipment (e.g., portable generators, etc.) would be shielded from sensitive uses using local temporary noise barriers or enclosures or would otherwise be designed or configured so as to minimize noise at nearby noise-sensitive receivers.

3. Construction, including staging of construction equipment, would take place as far as is practicable from noise- or vibration-sensitive land uses, which consist of the residences located to the west of the project site, a preschool located to the west of the project site, and a church located to the west of the project site.
4. All noise-producing equipment and vehicles using internal combustion engines would be equipped with mufflers; air-inlet silencers where appropriate; and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) would be equipped with shrouds and noise control features that are readily available for that type of equipment.
5. All mobile or fixed noise-producing equipment used for the project that are regulated for noise output by a local, state, or federal agency would be in compliance with regulations.
6. Idling equipment would be kept to a minimum and moved as far as practicable from noise-sensitive land uses.
7. Electrically powered equipment would be used instead of pneumatic or internal combustion powered equipment, where feasible.
8. Mobile equipment staging, parking, and maintenance areas would be located as far as practicable from noise-sensitive receptors.
9. The use of noise-producing signals, including horns, whistles, alarms, and bells, would be used for safety warning purposes only.

The effectiveness of the construction BMPs listed above would vary from several decibels (which in general is a relatively small change) to ten or more decibels (which would be perceived as a substantial change). The range of effectiveness would vary based on the equipment in use, the original condition of the equipment, the specific location of the noise source and receiver, etc. Installation of a temporary noise barrier, for example, would vary in effectiveness depending upon the degree to which the line-of-sight between the source and receiver is broken. The noise reduction achieved by a barrier typically ranges from 5 dB to 10 dB. The noise reduction achieved by equipment silencers would range from several decibels to well over 10 decibels. Limiting equipment idling could reduce overall noise levels up to several decibels. However, in conjunction, the BMPs would result in a substantial decrease in construction noise.

Additionally, MM-NOI-1 has been set forth to ensure that nearby receptors are informed of construction activities. While MM-NOI-1 would not reduce construction noise levels, it would ensure that receptors in the project area are prepared for any nuisances that may occur and would allow them to plan accordingly. Upon compliance with the BMPs listed above, as well as implementation of MM-NOI-1, impacts would be less than significant with mitigation incorporated.

MM-NOI-1 Effective communication with local residents shall be maintained prior to and during construction. Specifically, the County of Los Angeles Department of Public Works shall inform local residents, the nearby childcare facility, and the church of the schedule, duration, and progress of the construction. Additionally, nearby noise-sensitive receivers shall be provided contact information for noise- or vibration-related complaints.

Operational Noise (Long-Term Impacts)

Once project construction has been completed, operation and maintenance would continue to be the responsibility of Public Works, consistent with existing conditions. The primary responsibilities would be the

maintenance and upkeep of the bridge for continued use. Operationally, the bridge would carry vehicle traffic from The Old Road, in the same manner as it does currently. No additional noise would result from implementation of the proposed project once construction is complete; therefore, no operational noise impacts would occur.

In conclusion, construction noise would be less than significant with mitigation incorporated, and no operational noise impacts would occur. As such, impacts would be less than significant with mitigation incorporated.

b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant Impact. Construction activities that might expose people to excessive groundborne vibration or groundborne noise could cause a potentially significant impact. Groundborne vibration information related to construction activities has been collected by Caltrans (Caltrans 2013). Information from Caltrans indicates that transient vibrations (such as construction activity) with a peak particle velocity of approximately 0.035 inches per second may be characterized as barely perceptible, and vibration levels of 0.24 inches per second may be characterized as distinctly perceptible. The heavier pieces of construction equipment, such as bulldozers, would have peak particle velocities of approximately 0.089 inches per second or less at a distance of 25 feet (U.S. DOT 2018). Groundborne vibration is typically attenuated over short distances.

At the nearest existing noise/vibration-sensitive land use distances to the nearest construction area (approximately 230 feet) and with the anticipated construction equipment, the peak particle velocity produced during project construction would be approximately 0.0032 inches per second. This vibration level would be well below the threshold of “barely perceptible” of 0.035 inches per second, as well as the typical vibration threshold for potential building damage of 0.5 inches per second or greater for buildings of reinforced-concrete, steel, or timber construction. Groundborne vibration would not be associated with the proposed project following construction activities. Impacts related to groundborne vibration would be less than significant.

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 proposed project would not be located within the vicinity of a private airstrip; additionally, the project site is located approximately 17 miles west of the nearest airport, Agua Dulce Airport. According to the Los Angeles County Airport Land Use Commission, the project site is not located within the airport influence area of Agua Dulce Airport or other airports (L.A County ALUC 2004). In addition, the proposed project would not include occupied facilities that would result in the exposure of people to airport-related noise. No impact would occur.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Would the project 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)?*

No Impact. The proposed project would not include the construction or implementation of any buildings or infrastructure, such as new residences or businesses, which could directly or indirectly induce substantial population growth. The proposed project would consist of the seismic retrofit of The Old Road Bridge. Upon operation, the retrofitted bridge would function in the same way as it does under existing conditions. Given this, the proposed project would not induce substantial population growth, and no impact would occur.

b) *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. As stated above in Section 3.14(a), the proposed project consists of the seismic retrofit of The Old Road Bridge. No existing housing or associated buildings would be damaged or demolished as part of the proposed project, and, as such, the project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Upon operation, the retrofitted bridge would operate consistent with existing conditions. Given this, the proposed project would have no impact related to displacement of people or housing.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
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:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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:*

Fire protection?

Less Than Significant Impact. The Los Angeles County Fire Department (LACFD) provides fire protection services to unincorporated Los Angeles County, including the community of Val Verde. Fire Station 143, located 1.3 miles west of the project site, would be the first responder to calls for service at the project site. The need for new or expanded public facilities such as new fire stations is usually associated with population growth to the extent that existing facilities cannot meet the demands of the population. As stated above in Section 3.14, the proposed project consists of the seismic retrofit of The Old Road Bridge. The proposed project would not include the construction of residences or other land uses that could lead to population growth. During project construction, there is some potential for construction activity to temporarily increase the potential for fire ignition. However, as described in Section 3.9 of this IS/MND, measures would be taken to prevent ignition during construction, thereby reducing the project’s potential to create a temporary demand for fire protection services. Furthermore, no complete road closures would occur during construction. While partial lane closure would occur, the closure would be temporary, and two-way travel across the bridge would still be possible. As such, emergency vehicles would still be able to travel across the bridge during construction. Construction signage and construction workers with flags would be provided near the partial lane closure as necessary to divert traffic and ensure safety. As such, construction would not interfere with LACFD’s emergency response. Upon operation, the retrofitted bridge would function consistent with existing conditions and would not contribute to increased demands for fire protection. For these reasons, impacts would be less than significant.

Police protection?

No Impact. The Los Angeles County Sheriff's Department (LASD) provides police protection services to unincorporated Los Angeles County, including the community of Val Verde. The need for new or expanded public facilities such as new police stations is usually associated with population growth to the extent that existing facilities cannot meet the demands of the population. As stated above in Section 3.14, the proposed project consists of the seismic retrofit of The Old Road Bridge. The proposed project would not include the construction of residences or other land uses that could lead to population growth. Upon operation, the retrofitted bridge would function consistent with existing conditions. Given this, the proposed project would not induce substantial population growth and no impact would occur.

During construction of the proposed project, no complete road closures would occur. While partial lane closure would occur, the closure would be temporary, and two-way travel across the bridge would still be possible. As such, emergency vehicles would still be able to travel across the bridge during construction. Construction signage and construction workers with flags would be provided near the partial lane closure as necessary to divert traffic and ensure safety. As such, construction would not interfere with LASD's emergency response. Given this, the project would have no impact to police protection services.

Schools?

No Impact. The need for new or expanded public facilities such as new or expanded school facilities is usually associated with population growth to the extent that existing facilities cannot meet the demands of the population. As stated above in Section 3.14, the proposed project consists of the seismic retrofit of The Old Road Bridge. The proposed project would not include the construction of residences or other land uses that could lead to population growth. Upon operation, the retrofitted bridge would function consistent with existing conditions. Given this, the proposed project would not induce substantial population growth and no impact to existing school facilities would occur.

Parks?

No Impact. The need for new or expanded public facilities such as new parks is usually associated with population growth to the extent that existing facilities cannot meet the demands of the population. As stated above in Section 3.14, the proposed project consists of the seismic retrofit of The Old Road Bridge. The proposed project would not include the construction of residences or other land uses that could lead to population growth. Upon operation, the retrofitted bridge would function consistent with existing conditions. Given this, the proposed project would not induce substantial population growth and no impact to existing park facilities would occur.

Other public facilities?

No Impact. The need for new or expanded public facilities is usually associated with population growth to the extent that existing facilities cannot meet the demands of the population. As stated above in Section 3.14, the proposed project consists of the seismic retrofit of The Old Road Bridge. The proposed project would not include the construction of residences or other land uses that could lead to population growth. Upon operation, the retrofitted bridge would function consistent with existing conditions. Given this, the proposed project would not induce substantial population growth and no impacts to other public facilities would occur.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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?***

No Impact. Increased use of existing neighborhood and regional parks is typically associated with population growth to the extent that existing facilities cannot meet the demands of the population. As stated above in Section 3.14, the proposed project consists of the seismic retrofit of The Old Road Bridge. The proposed project would not include the construction of residences or other land uses that could lead to population growth. Upon operation, the retrofitted bridge would function in a manner consistent with existing conditions. Given this, the proposed project would not induce substantial population growth, and thus, would have no impact associated with physical deterioration of recreational facilities.

- 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?***

No Impact. The need for new or expanded public recreational facilities is typically associated with population growth to the extent that existing facilities cannot meet the demands of the population. As stated above in Section 3.14, the proposed project consists of the seismic retrofit of The Old Road Bridge. The proposed project would not include the construction of residences or other land uses that could lead to population growth, nor would it include construction of new recreational facilities. Upon operation, the retrofitted bridge would function consistent with existing conditions. Given this, the proposed project would not induce substantial population growth, would not require the construction or expansion of recreational facilities, and thus, would have no impact associated with the construction or expansion of recreational facilities.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII.TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

This section analyzes the potential impacts of the proposed project based on CEQA Guidelines Section 15064.3(b), which focuses on newly adopted criteria (vehicle miles traveled, or VMT, pursuant to Senate Bill (SB 743) for determining the significance of transportation impacts. Pursuant to SB 743, the focus of transportation analysis has changed from level of service (LOS) or vehicle delay to VMT. The Los Angeles County Public Works Transportation Impact Analysis Guidelines, dated July 2020, provide the new transportation analysis criteria and thresholds, which include VMT analysis requirements per CEQA Guidelines Section 15064.3(b). Additionally, guidance provided in the California Governor’s Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) is also used to determine a project’s transportation impact.

Construction activities at the project site would consist of seismic retrofits to The Old Road Bridge. Construction is anticipated to occur for approximately 120 days. The Old Road is a north-south, two-lane, undivided roadway that runs parallel to I-5. It provides access to I-5 via a roundabout interchange at Hasley Canyon Road. There is no posted speed limit, sidewalk, or bike lane along this roadway near the proposed project. Parking is not allowed on either side of The Old Road. Existing average daily traffic (ADT) counts along The Old Road near the proposed project site was observed to be 7,900 vehicles during a typical non-holiday week in April 2019. Nominal pedestrian and bike traffic was observed along The Old Road near the proposed project site. Traffic counts are provided in Appendix F of this IS/MND. The construction of the proposed project is limited to the bridge and staging areas shown on Figure 3. Therefore, the construction would not negatively affect existing pedestrian, bicycle, transit, or vehicle circulation as it would not require complete closure of The Old Road, or loss of any vehicle, bicycle, or pedestrian access to existing land uses located to the north and south of the project site. The construction of the project is not close to Americans with Disabilities Act access to an existing transit station, stop, or facility and would not restrict access to any bus route. Therefore, it would not require a Construction Phase Analysis per the Los Angeles County Public Works Transportation Impact Analysis Guidelines. However, for any construction in the public right-of-way, Public Works or its construction contractor would implement Traffic Control Plans (TCP) consistent with the California

Manual on Uniform Traffic Control Devices (CA-MUTCD) and would implement requirements for temporary traffic controls to include features such as:

- Use of flaggers, signage, traffic control barricades, channelizing devices, pavement markings and/or work vehicles to safely direct traffic through construction work zone.
- Use warning signs and plaques as specified in CA-MUTCD for temporary traffic control zones.

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 Impact. The Institute of Transportation Engineers’ Trip Generation manual does not contain trip rates for the construction-related activities that would be associated with the proposed project. Trip generation for construction projects is based on average or peak number of workers and trucks that would be required for the proposed construction activities. Construction traffic includes the number of workers and the amount of delivery (vendor) and haul truck traffic that would be generated to and from the site daily and during the AM and PM peak commuting hours. The maximum number of construction-related trips is expected to occur during the clearing/demolition phase. Approximately 15 workers, 5 delivery (vendor) trucks, and 5 haul trucks are anticipated to be required during peak construction-related activities. The construction activities will occur in one shift of approximately 8 hours between 7:00 a.m. and 6:00 p.m., Monday through Friday. Based on this work schedule, workers would not likely be traveling during the AM or the PM peak periods. However, to provide a conservative analysis, workers were assumed to arrive during the AM peak hour and leave the site during the PM peak hour. All truck trips were averaged over the 8-hour workday to estimate peak hour trips with 50% inbound and 50% outbound. The number of truck trips were converted using Passenger Car Equivalency (PCE) factors to more accurately account for the effect of trucks on the circulation system. All truck trips were converted to PCE trips using a factor of 2.0 or 3.0. Project trip generation estimates are shown in Table 3.17-1 below.

Table 3.17-1. Project Trip Generation

Vehicle Type	Daily Quantity		Daily Trips	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation									
Clearing and Demolition									
Workers ¹	15	Workers	30	15	0	15	0	15	15
Vendor Trucks ²	5	Trucks	10	1	1	2	1	1	2
Haul Trucks ³	5	Trucks	9	1	0	1	0	1	1
<i>Subtotal</i>			49	17	1	18	1	17	18
Grading and Excavation									
Workers	15	Workers	30	15	0	15	0	15	15
Vendor Trucks	5	Trucks	10	1	1	2	1	1	2
Haul Trucks	0	Trucks	0	0	0	0	0	0	0
<i>Subtotal</i>			40	16	1	17	1	16	17
Construction									
Workers	15	Workers	30	15	0	15	0	15	15
Vendor Trucks	5	Trucks	10	1	1	2	1	1	2

Table 3.17-1. Project Trip Generation

Vehicle Type	Daily Quantity		Daily Trips	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Haul Trucks	0	Trucks	0	0	0	0	0	0	0
<i>Subtotal</i>			40	16	1	17	1	16	17
Trip Generation (w/PCE)									
Clearing and Demolition									
Workers (1.0 PCE)	15	Workers	30	15	0	15	0	15	15
Vendor Trucks (2.0 PCE)	5	Trucks	20	2	2	4	2	2	4
Haul Trucks (3.0 PCE)	5	Trucks	27	3	0	3	0	3	3
<i>Subtotal (w/PCE)</i>			77	20	2	22	2	20	22
Grading and Excavation									
Workers (1.0 PCE)	15	Workers	30	15	0	15	0	15	15
Vendor Trucks (2.0 PCE)	5	Trucks	20	2	2	4	2	2	4
Haul Trucks (3.0 PCE)	0	Trucks	0	0	0	0	0	0	0
<i>Subtotal (w/PCE)</i>			50	17	2	19	2	17	19
Construction									
Workers (1.0 PCE)	15	Workers	30	15	0	15	0	15	15
Vendor Trucks (2.0 PCE)	5	Trucks	20	2	2	4	2	2	4
Haul Trucks (3.0 PCE)	0	Trucks	0	0	0	0	0	0	0
<i>Subtotal (w/PCE)</i>			50	17	2	19	2	17	19

Notes:

- ¹ Workers are assumed to utilize passenger cars and no carpooling is assumed. All workers are anticipated to arrive and depart during the AM and PM peak hour.
- ² Vendor trucks are assumed to be distributed evenly across the 8-hour work shift to estimate AM and PM peak hour trips.
- ³ Haul truck trips are distributed evenly over the duration of construction phase to estimate daily haul truck trips and across the 8-hour work shift to estimate AM and PM peak hour trips.

As shown in the Table 3.17-1, the project would generate 49 daily trips, 18 AM peak hour trips (17 inbound and 1 outbound), and 18 PM peak hour trips (1 inbound and 17 outbound). With the application of PCE factors to truck trips, the project would generate 77 total PCE daily trips, and 22 PCE trips during the AM peak hour (20 inbound and 2 outbound) and 22 PCE trips during the PM peak hour (2 inbound and 20 outbound).

Construction related traffic would be temporary and short term. As described previously, construction of the proposed project would result in a temporary increase in local traffic as a result of construction-related workforce traffic, material deliveries, and construction activities. The primary off-site impacts from the movement of construction trucks would include short-term and intermittent effects on traffic operations because of slower movements and larger turning radii of delivery and haul trucks compared to passenger vehicles. However, The Old Road would be open to traffic at all times.

The proposed project would not increase roadway capacity, generate a permanent increase in traffic or induce traffic, or change traffic patterns that could cause an impact to the circulation system including transit, roadway, bicycle, and pedestrian facilities. Therefore, the proposed project would not conflict with adopted policies, plans, or programs addressing the circulation system, and impacts would be less than significant.

b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Less Than Significant Impact. CEQA Guidelines Section 15064.3, subdivision (b), focuses on specific criteria (vehicle miles traveled (VMT)), for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. This project would be categorized under subdivision (b)(2), Transportation Projects. Subdivision (b)(2) recognizes that transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. The Los Angeles County Public Works Transportation Impact Analysis Guidelines, dated July 2020, provide guidance for VMT screening and analysis of transportation projects. Transportation projects that increase vehicular capacity can lead to additional travel on the roadway network, which can include induced vehicle travel due to factors such as increased speeds and induced growth. Consistent with OPR guidance, the Los Angeles County Public Works Transportation Impact Analysis Guidelines state that transportation projects including rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts) that are not likely to lead to a substantial or measurable increase in vehicle travel would not be required to prepare an induced travel analysis. The proposed project involves a retrofit of an existing bridge which would bring the bridge into conformance with current seismic standards. The project site is close to SR-126 and parallel to I-5. However, the proposed project would not cause a permanent increase of traffic, or induce traffic, as it is not increasing the capacity of the roadway segment of The Old Road or providing an alternative route to the existing traffic.

Additionally, vehicle miles generated from construction traffic would be temporary and short term. Once construction is completed, construction-related traffic would cease and VMT levels would return to pre-project conditions. Therefore, the proposed project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Impacts would be less than significant.

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)?*

Less Than Significant Impact. The proposed retrofit of the bridge would remediate an existing seismic hazard and result in increased safety for road users. The proposed project would not include any new roadway design features, nor would it include any geometric design features; no sharp curves or dangerous roadway conditions are proposed. No complete road closures over the existing Old Road Bridge would occur during construction activities. While partial lane closure would occur, the closure would be temporary, and two-way travel across the bridge would still be possible. Construction signage and construction workers with flags would be provided near the partial lane closure as necessary as part of the required TCP to divert traffic and ensure safety of all road users. As such, all road users would be able to travel along The Old Road using the existing bridge deck safely. Therefore, project would not substantially increase hazards due to a roadway design feature. Impacts would be less than significant.

d) *Would the project result in inadequate emergency access?*

Less Than Significant Impact. As mentioned in Section 2 of this IS/MND, no complete road closures over The Old Road Bridge would occur during construction activities. While partial lane closure would occur, the closure would be temporary, and two-way travel across the bridge would still be possible. As such, emergency vehicles would still be able to travel across the bridge during construction. Construction signage

and construction workers with flags would be provided near the partial lane closure as necessary as part of required TCP to divert traffic and ensure safety of all road users. Therefore, construction of the project would allow continued traffic flow and would not obstruct access to emergency vehicles. Construction occurring within the ROW would be required to implement appropriate construction traffic management measures to facilitate safe passage of all road users along the bridge. The project would not result in inadequate emergency access, and impacts would therefore be less than significant.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL 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:				
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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) *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)?*

Less Than Significant Impact. As described under Section 3.5 of this document, a CHRIS records search and NAHC SLF search were conducted for the proposed project site. No tribal cultural resources (TCRs) were identified as a result of the records searches. In a SLF results letter dated April 5, 2019, the NAHC stated that the SLF search was completed with negative results. Additionally, no designated TCRs were identified by California Native American tribes as part of Public Work’s AB 52 notification and consultation process (see Section 3.17(b)(ii) below for a description of this process). Therefore, the proposed project

would not adversely affect TCRs that are listed or eligible for listing in the state or local register. Impacts would be less than significant.

- 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?***

Less Than Significant with Mitigation Incorporated. The proposed project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to tribal cultural resources as part of the CEQA process and requires lead agencies to provide notification of proposed projects to California Native American Tribal representatives that have requested, in writing, to be notified by lead agencies through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe. The Tribes that have provided prior requests for notification to Public Works are the San Gabriel Band of Mission Indians and the Fernandeano Tataviam Band of Mission Indians. The Gabrieleño Band of Mission Indians-Kizh Nation has provided prior request for notification to Public Works but only for those projects located within the Tribe's ancestral/traditional boundaries as demonstrated by a map provided to Public Works by the Tribe (supporting documentation provided in confidential Appendix C2). Based on the tribal boundary map, the proposed project would not be located within the Tribe's ancestral/traditional boundaries.

On April 4, 2019, Public Works mailed notification letters to representatives from the San Gabriel Band of Mission Indians and the Fernandeano Tataviam Band of Mission Indians. In an abundance of caution and despite the fact that the location of the project site exists outside the ancestral/traditional boundaries of the Gabrieleño Band of Mission Indians-Kizh Nation, Public Works contacted the Tribe on January 6, 2021, via email, based on the Tribe's response during the informal outreach (see Section 3.5, Cultural Resources, for more information). On January 7, 2021, Public Works contacted the Tribe via phone to ensure receipt of the email. The Tribe acknowledged receipt of the email and stated that they would contact Public Works with any questions. Public Works also provided the Tribe with a project location map and project description via email. One response to Public Works' AB 52 notification, to date, has been received via email by Public Works and is summarized as follows:

On May 8, 2019, Jairo Avila, Tribal Historic and Cultural Preservation Officer of the Fernandeano Tataviam Band of Mission Indians (FTBMI) responded via email and requested consulting party status for the proposed project. In addition, Mr. Avila stated that Castaic Creek is a significant TCR to the FTBMI. Moreover, Mr. Avila stated that there are various known TCR sites within the vicinity of the proposed project site and as such, the proposed project site is in a culturally sensitive area and may have the potential to discover/unearth cultural resources. Furthermore, Mr. Avila stated that precautions should be taken when proposing any ground disturbing activities within the region of the proposed project site. Mr. Avila requested to review the proposed project's geotechnical report, cultural resources assessment, and grading/excavation plans. Geotechnical reports and the 90% Plan Distribution were sent to Mr. Avila via email on August 8, 2019. On September 10, 2019, Public Works subsequently provided a summary of the CHRIS records search results via email to the FTBMI. The FTBMI responded via email on September 13, 2019, acknowledging receipt of the geotechnical report and project plans. The FTBMI stated that due to the project's excavation and proximity to known TCR sites, the project would have the potential to impact TCRs. As such, the FTBMI requested a number of mitigation measures to be incorporated. These

measures included requirements for construction work in the immediate vicinity of a cultural resources find to cease, requirements to contact the FTBMI in the event of a find, requirements for a qualified archaeologist to assess the find, and requirements for Public Works to consult with the FTBMI on the disposition and treatment of the find. The recommended measures also included a provision for the inadvertent discovery of human remains, requiring the FTBMI to be notified in the event that remains are determined to be Native American.

Public Works has reviewed and considered the measures provided by the FTBMI. Given the results of the CHRIS records search and the NAHC SLF search results, Public Works has determined that there are no TCRs within the immediate vicinity of the project site that are significant pursuant to the criteria set forth in Public Resources Code Section 5024.1. However, the AB 52 consultation between Public Works and the FTBMI suggests that there is some potential for unknown subsurface TCRs to be impacted by the proposed project. In the event that unknown subsurface TCRs are uncovered during construction ground disturbance, and such resources are not identified and avoided or properly treated, a potentially significant impact could result. As such, Public Works is including a mitigation measure (MM-TCR-1) that addresses the concerns of the FTBMI and is appropriate for the project and the potential for unanticipated discovery of TCRs on the project site. MM-TCR-1 requires that the FTBMI would be contacted if a potential TCR is uncovered during project construction. The FTBMI would then be provided a reasonable period of time to conduct a site visit and make recommendations regarding future ground disturbance activities, as well as the treatment and disposition of any discovered TCRs. This measure would therefore address the FTBMI's request to be contacted in the event of a find and to be consulted regarding the treatment of disposition of a TCR, in the event that one is inadvertently uncovered. Inadvertent discovery of human remains, including those that are Native American in origin, would be addressed pursuant to the state laws summarized in Section 3.5(c) of this IS/MND.

In the event that unknown subsurface TCRs are uncovered during construction ground disturbance, and such resources are not identified and avoided or properly treated, a potentially significant impact could result. However, mitigation measure MM-TCR-1 would protect TCRs, in the event that any were discovered during project construction.

MM-TCR-1 Should a potential tribal cultural resource (TCR) be inadvertently encountered during project construction, ground-disturbing activities near the encounter shall be temporarily halted within 100 feet of the discovery and the County of Los Angeles Department of Public Works (Public Works) shall be notified.

Public Works shall notify the consulting Native American tribe pursuant to Assembly Bill 52. If the unanticipated discovery is archaeological in nature, appropriate management requirements shall be implemented as outlined in mitigation measure MM-CUL-1. If Public Works determines that the potential resource appears to be a TCR (as defined by Public Resources Code, Section 21074), the consulting tribe shall be provided a reasonable period of time, typically five days from the date a new discovery is made, to conduct a site visit and make recommendations regarding future ground disturbance activities, as well as the treatment and disposition of any discovered TCRs. Depending on the nature of the potential resource and tribal recommendations, retention of and review by a qualified archaeologist may be required and will be undertaken if warranted. Implementation of

proposed recommendations shall be made based on the determination of Public Works that the approach is reasonable and feasible.

Upon implementation of MM-TCR-1, impacts involving tribal cultural resources would be less than significant with mitigation incorporated.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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?***

No Impact. The proposed project would include the seismic retrofit of The Old Road Bridge. Existing utilities in the vicinity of the project site would be protected in place during construction-related activities. As such, no utility relocations would be required as a result of project construction.

Project construction would result in temporary increases in water use in the project area, since water would be required for construction-related activities (dust control, concrete mixing, etc.). Namely, the project would receive water from water purveyors operating under the Castaic Lake Water Agency (CLWA) within

the Santa Clarita Valley Water Agency's (SCV Water) jurisdiction. However, the proposed project's demand for water would be minimal and would only last for the duration of the 24-week construction period. As such, the proposed project would not result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

Project construction would not significantly increase demand for electricity, natural gas, or wastewater treatment services. Non-stormwater discharges could be generated during construction; however, such discharges would be periodic and temporary and, thus, would not require new wastewater facilities.

Upon operation, the proposed project would not have an effect on demands for water, electricity, natural gas, or wastewater treatment services. The proposed project would not include any habitable buildings or infrastructure that would require utility services. As such, the proposed project would not require or result in the construction or relocation of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications infrastructure. No impact would occur.

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?*

No Impact. Construction of the proposed project would require temporary water supply from existing service providers. Namely, the project would receive water from water purveyors operating under the CLWA, which is the wholesale water provider within SCV Water Agency's jurisdiction. The Urban Water Management Plan (UWMP) prepared for the SCV Water Agency provides the supply and demand totals for the CLWA, in normal, single dry year and multiple dry year periods. According to the UWMP, the CLWA's water supply is expected to exceed demand through the year 2040, by a minimum of 25,241 acre feet (Santa Clarita Valley Water Agency 2015). Water use during the proposed project's 24-week construction period would have a negligible effect on the ability of the SCV Water Agency to provide water to the project site in addition to their existing commitments. Upon operation, the proposed project would not include any habitable structures or infrastructure that would require water. As such, no impacts would occur related to water supply.

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?*

No Impact. The proposed project would consist of the seismic retrofit of The Old Road Bridge. The project would not include the construction of any habitable structures and, as such, would not involve long-term sanitary sewer discharges. Wastewater produced during construction of the proposed project would be minimal and would not be expected to affect the capacity of the wastewater treatment provider. As such, no impact would occur.

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?*

No Impact. The proposed project would be required to comply with all applicable local and state regulations related to solid waste. Construction associated with the proposed project would generate minor amounts of solid waste. Solid waste would primarily consist of unsound concrete and excavated soils removed during construction activities. Once construction is complete, the project would not require solid waste disposal.

The proposed project would adhere to the California Green Building Standards Code, which requires that 65% of construction and demolition waste must be diverted from landfills. As such, at least 65% of all construction and demolition debris from the site would be diverted. Any hazardous wastes that are generated during construction activities would be managed and disposed of in compliance with all applicable federal, state, and local laws, including the County's Construction and Demolition Waste Recycling Ordinance.

During construction, approximately 180 cubic yards of earthwork and demolition material would be removed from the site and exported. It is assumed that these materials would be transported to the Chiquita Canyon Landfill, a nearby landfill that accepts construction and demolition debris. Haul trucks would deliver the export to the Chiquita Canyon Landfill, which has a maximum permitted throughput of 12,000 tons per day and a remaining capacity of 60,408,000 cubic yards (CalRecycle 2020). As such, the landfill that is expected to serve the project is anticipated to have sufficient permitted capacity to accommodate the construction debris that would be generated by the proposed project and would be operational throughout the construction period (anticipated closure is in 2047). As such, construction debris is anticipated to be minimal and would be accommodated by landfills in the area.

For these reasons, the proposed project would not generate waste in excess of state or local standards or in excess of the capacity of local infrastructure and would not impair the attainment of solid waste reduction goals. Operation of the proposed project would not generate solid waste. For these reasons, no impact would occur.

e) ***Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

No Impact. The proposed project would be required to comply with all applicable local and state regulations related to solid waste. Construction associated with the proposed project would generate minor amounts of solid waste. Solid waste would primarily consist of unsound concrete and excavated soils removed during construction activities. Once construction is complete, the project would not require solid waste disposal.

The proposed project would adhere to the California Green Building Standards Code, which requires that 65% of construction and demolition waste must be diverted from landfills. As such, at least 65% of all construction and demolition debris from the site would be diverted. Any hazardous wastes that are generated during construction activities would be managed and disposed of in compliance with all applicable federal, state, and local laws, including the County's Construction and Demolition Waste Recycling Ordinance. As such, the proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste and no impact would occur.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact. The proposed project and surrounding areas are located within a Very High Fire Hazard Severity Zone (VHFHSZ). The Old Road Bridge is not located within a State Responsibility Area; however, areas immediately to the northwest of the bridge are within a State Responsibility Area (CalFIRE 2020). The Los Angeles County’s Office of Emergency Preparedness is responsible for organizing emergency preparedness, response, and evacuation plans. Current emergency response plans include the Los Angeles County Operational Area Emergency Response Plan (Emergency Response Plan) and the Los Angeles County Operational Area Strategic Plan for Emergency Management (Emergency Management Plan). Both plans address the County’s planned response to extraordinary emergencies (natural and man-made disasters and technological incidents) in order to preserve life and property (OEP 1998). Specifically, the plans serve to outline the government’s course of action in the event of an emergency. The proposed project would consist of the seismic retrofit of The Old Road Bridge in the unincorporated community of Val Verde, and, as such, would not include any elements that would substantially impair either adopted emergency response plan.

Los Angeles County's Office of Emergency Preparedness is responsible for organizing emergency preparedness, response, and evacuation plans. In addition, the Los Angeles County Department of Public Works designates disaster routes (County of Los Angeles 2010). The disaster route map for the Santa Clarita area identifies The Old Road, including the project site, as a secondary disaster route. The adjacent I-5 is the primary disaster route. The proposed project would include the seismic retrofit of The Old Road Bridge because the existing bridge is not equipped to withstand significant seismic activity. In the event of an extraordinary emergency, including an earthquake, the proposed project site would serve as a safe and instrumental route via which residents of unincorporated Los Angeles County could evacuate and/or access the I-5 evacuation route. Thus, upon operation, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

During construction of the proposed project, the presence of construction equipment and workers on ancillary roadways may slow traffic in the event of an emergency evacuation; however, due to the proximity of the I-5, impacts to emergency evacuation routes as a result of construction-related activities would not be significant. Furthermore, no complete road closures over The Old Road Bridge would occur during construction activities. While partial lane closure would occur, the closure would be temporary, and two-way travel across the bridge would still be possible. As such, emergency vehicles would still be able to travel across the bridge during construction, and evacuation across the bridge would still be possible. Furthermore, in the event of any constraints to evacuation across the bridge, the adjacent I-5 freeway would provide an alternate route that has additional capacity. Construction signage and construction workers with flags would be provided near the partial lane closure as necessary to divert traffic and ensure safety. Given the above, the proposed project would have a less than significant impact to adopted emergency response plans and emergency evacuation plans.

- b) ***Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

Less Than Significant with Mitigation Incorporated. The proposed project site is located within a VHFHSZ. As described in Section 3.9, project activities would not involve the construction or operation of habitable structures in wildland areas or promote new development in wildland areas. However, project activities have the potential to increase the risks associated with wildfire due to the presence of construction equipment on or near the naturalized area below The Old Road Bridge, including leaks from heavy equipment, the use of flammable liquids, and presence of combustion engines, among others.

In order to minimize wildfire-related risks, the proposed project would implement MM-HAZ-4, which would entail the preparation of a Fire Protection Plan. MM-HAZ-4 would reduce the potential for the proposed project to exacerbate wildfire risks. Therefore, with implementation of MM-HAZ-4, impacts associated with wildfire risks would be less than significant with mitigation incorporated.

- c) ***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?***

No Impact. The proposed project consists of the seismic retrofit of The Old Road Bridge. Existing overhead utility lines would be protected in place during construction, and no additional associated utility infrastructure would be warranted under the proposed project. As such, the proposed project would not

require the installation or maintenance of any associated infrastructure that may exacerbate fire risk or result in significant temporary or ongoing impacts to the environment. As such, no impact would occur.

- d) **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 proposed project consists of the seismic retrofit of The Old Road Bridge. The proposed project would involve temporary construction activities within and adjacent to Castaic Creek. As such, the project would result in drainage changes within the creek, due to the presence of construction equipment and the proposed grading and excavation activities within the creek. However, these drainage changes would be temporary and highly localized and would not be expected to pose a significant risk to people or structures. During construction, the number of people at the project site would also increase, causing a temporary increase in the number of people who could be exposed to fire-related hazards in the project area. However, once construction is complete, the creek would be returned to its existing conditions, and no additional people would be present in the area as a result of the project. Once operational, the bridge would function consistent with existing conditions. The bridge is elevated above Castaic Creek, which would continue to protect the structure from floods or mudflow within the creek. The proposed project would not introduce any new structures and would not permanently increase the number of people in the project area. For these reasons, impacts would be less than significant.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 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. As described in Section 3.4 of this IS/MND, proposed project construction has the potential to affect a number of special-status species (special-status bats, the yellow warbler, and white rabbit-tobacco plants). However, after implementation of MM-BIO-1, MM-BIO-2, MM-BIO-3, and MM-BIO-4, these impacts would be reduced to below a level of significance. Additionally, the project has the potential to affect jurisdictional waters. However, with implementation of MM-BIO-5, impacts would be less than significant. The project’s disturbance area is limited in size (approximately 1 acre) and would not result in permanent, long-term impacts to biological resources or habitat areas. As such, the project would not 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. Impacts to biological resources would be less than significant with mitigation incorporated.

The project would involve excavation and grading activities, which could potentially unearth previously unknown buried cultural resources. Such actions could unearth, expose, or disturb subsurface archaeological, historical, or Native American resources that were not observable on the ground surface. However, with the incorporation of MM-CUL-1 and MM-TCR-1, potential impacts to cultural resources that represent major periods of California history or prehistory would be less than significant. As such, impacts would be less than significant with mitigation incorporated.

- 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 with Mitigation Incorporated. As discussed in the respective issue areas, the proposed project would not result in any significant, unmitigable effects to environmental resources. The implementation of the identified project-specific mitigation measures and compliance with applicable regulations would reduce the magnitude of any impacts associated with proposed project construction activities to a less than significant level. For the reasons further set forth below, impacts would not be cumulatively considerable.

Related projects with the potential to contribute to cumulative impacts would be those projects occurring concurrent with and in proximity to the proposed project. Such projects, as may be determined at this level of planning, would be other infrastructure projects being undertaken by Public Works in the proposed project area at the time of construction activities and would also include development projects in the area that would create similar construction effects. The impacts of other construction projects, as well as those of the proposed project, would be temporary in nature, and would generally be limited to the area in which construction activities are occurring. Given that related infrastructure projects would be coordinated by Public Works, it can be anticipated that Public Works would initiate construction of these related projects in a manner such that construction activities associated with different projects would occur either at different times or at sufficient distance from one another, avoiding cumulative effects relative to air quality, noise, and traffic. Because the proposed project would not be associated with any new or altered operational activities and because the project's impacts would be limited to the 24-week construction period, the project's limited and temporary construction impacts would not likely combine with impacts from the long-term operation of any new development projects in the area, as those projects' impacts would be permanent.

With regard to air quality, the SCAQMD has established incremental emissions thresholds to determine whether a project will contribute to significant impacts. Because the proposed project would contribute emissions at rates well below SCAQMD significance thresholds, and given the aforementioned assumption that related Public Works projects would be coordinated as to avoid cumulative impacts, it is anticipated that the air quality impacts of the proposed project and other related projects would not be cumulatively considerable.

Noise impacts, similar to those related to air quality, would be dependent on the timing and location of related project construction in conjunction with the construction of the proposed project. As such, assuming that Public Works would phase such projects to avoid, to the extent feasible, concurrent construction of other bridge and infrastructure projects in proximity to each other, it can be concluded that noise impacts of the proposed project and related projects would not result in noise impacts that are cumulatively considerable. As explained in Section 3.13 of this IS/MND, the highest noise levels are predicted to occur during grading/excavation and construction activities, when noise levels would be as high as 71 dBA L_{eq} at the nearest noise-sensitive receivers (the childcare facility), approximately 67 dBA L_{eq} at the nearby church, and approximately 64 to 65 dBA L_{eq} at the nearest residences. However, Public Works would require its construction contractor to put in place a number of BMPs that would result in a substantial decrease in construction noise. Additionally, implementation of MM-NOI-1 would ensure that local residents are informed of the construction schedule, duration, and progress. Any other development projects in the project area have been or would be subject to environmental review pursuant to state law. If potentially significant noise impacts are identified, appropriate mitigation would be applied to the related projects. The combination of the temporary nature of this project, implementation of standard construction BMPs and project-specific mitigation, and regulatory and/or project-specific requirements that would be applied to related projects would ensure that cumulatively significant noise impacts would be less than significant with mitigation incorporated.

With regard to traffic, construction activities would generate truck traffic and vehicular traffic associated with construction workers. However, construction activities would not result in full lane closures and/or road blocks along The Old Road. Project-level impacts resulting from the proposed project's construction traffic would be temporary and less than significant, as described in Section 3.17 of this IS/MND. Additionally, other projects within the vicinity of the project site would be required to undergo independent

environmental review and approval, and, if transportation impacts are identified, would be required to reduce transportation impacts to the extent feasible. Based on the above, the cumulative traffic effects of the proposed project would be less than significant.

In summary, the proposed project's cumulative impacts would be less than significant with mitigation incorporated.

- 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. Implementation of the proposed project would not result in any impacts that are significant and unavoidable or cumulatively considerable. The implementation of the mitigation measures set forth herein would reduce all potential impacts to less-than-significant levels. Once operational, the proposed project would provide a reliable and seismically sound bridge. Therefore, upon implementation of the mitigation measures identified in this IS/MND, the proposed project would not result in impacts that would cause substantial adverse effects on human beings, either directly or indirectly. Therefore, impacts would be less than significant with mitigation incorporated.

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4 References and Preparers

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