

**SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

977A



**SUBMITTAL DATE:**  
April 21, 2016

**FROM:** TLMA – Transportation Department

**SUBJECT:** Intent to Adopt a Final Initial Study/Mitigated Negative Declaration and Approve the Interstate 15/Limonite Avenue Interchange Improvements Project. 2<sup>nd</sup> District; [\$0]

**RECOMMENDED MOTION:** That the Board of Supervisors:

1. Adopt a Final Initial Study with Mitigated Negative Declaration for Expenditure Authorization No. OE150 and adopt the Mitigation Monitoring and Reporting Program based on the findings in the initial study and the conclusion that the project will not have a significant effect on the environment; and
2. Approve the Interstate 15/Limonite Avenue Interchange Improvement Project; and
3. Direct the Clerk of the Board to file the Notice of Determination and Journal Voucher with the County Clerk for posting within five (5) working days of project approval.

Patricia Romo  
Assistant Director of Transportation

Juan C. Perez  
Director of Transportation and Land Management

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost:	POLICY/CONSENT (Per Exec. Office)
COST	\$ 0	\$ 0	\$ 0	\$ 0	Consent <input type="checkbox"/> Policy <input checked="" type="checkbox"/>
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0	

**SOURCE OF FUNDS:** No General Funds are used on this project

**Budget Adjustment:** N/A

**For Fiscal Year:** 16/17

**C.E.O. RECOMMENDATION:**

APPROVE

BY:

Tina Grande

County Executive Office Signature

**MINUTES OF THE BOARD OF SUPERVISORS**

Positions Added  
 Change Order

A-30  
 4/5 Vote

**Prev. Agn. Ref.:** 1/29/13 (3-47)  
(3-48) | **District:** 2 | **Agenda Number:**

3-71

FORM APPROVED COUNTY COUNSEL  
 BY: ANITA C. WILLIS  
 DATE: 6-9-10  
 Departmental Concurrence

**SUBMITTAL TO THE BOARD OF SUPERVISORS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**  
**FORM 11: Intent to Adopt a Final Initial Study/Mitigated Negative Declaration and Approve the Interstate 15/Limonite Avenue Interchange Improvements Project. 2<sup>nd</sup> District; [\$0]**  
**DATE:** April 21, 2016  
**PAGE:** 2 of 3

**BACKGROUND:**

**Summary:**

Limonite Avenue is a primary eastwest corridor in northwest Riverside County. The Limonite Avenue interchange at Interstate 15 (I-15), within the City of Eastvale and the City of Jurupa Valley, is a key regional interchange serving the cities and the region.

The County of Riverside (County), in cooperation with the California Department of Transportation (Caltrans) and the cities of Eastvale and Jurupa Valley, propose to improve the existing freeway interchange at I-15 and the Limonite Avenue Overcrossing. The project would widen the existing northbound and southbound on-and-off-ramps, widen Limonite Avenue to three lanes in each direction through the interchange area, and replace the existing Limonite Avenue Overcrossing structure, as well as construct loop ramps in the southeast and northeastern quadrant (Partial Clover Leaf). The project extends easterly and westerly along Limonite Avenue between Hamner Avenue and Wineville Avenue, and along I-15, improvements are proposed from approximately 1.5 miles south to 1.4 miles north of the existing Limonite Avenue Overcrossing.

Since the County has extensive experience in the design, environmental clearance, right of way acquisition, and construction of interchange projects involving federal and state agencies, the County, Caltrans, and the Cities mutually agreed to designate the County as the lead agency for this interchange project. A cooperative agreement between the County and Caltrans designated the County to complete the development of the environmental, design, and right-of-way acquisition phases of the I-15/Limonite Avenue Interchange Improvement Project was approved by the Board of Supervisors on January 29, 2013 (Agenda Item 3-47). A separate cooperative agreement with the cities was approved by the Board of Supervisors on the same date (Agenda Item 3-48).

Adoption of the Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Plan (MMRP) will complete the environmental documentation for the project. The final design is currently on-going and will be completed in late 2016.

Pursuant to Division 13 of the Public Resources Code of California Environmental Quality Act (CEQA), the County, as the Responsible Agency, and in cooperation with Caltrans as the Lead Agency, has prepared the Initial Study (EA No. OE150/SCH # 2015071051) to analyze the proposed project. The Initial Study/Mitigated Negative Declaration (IS/MND) was circulated for public review from July 20, 2015 to August 19, 2015. The document was made available for review at the County of Riverside Transportation Department (Transportation Department), the Eastvale Public Library, the Glen Avon Public Library, and also made available online at [www.dot.ca.gov/dist8/Project-I-15-Limonite-Interchange.html](http://www.dot.ca.gov/dist8/Project-I-15-Limonite-Interchange.html). The public Notice of Intent (NOI) to adopt the CEQA IS/MND was published in the Press Enterprise and La Prensa. A Public Meeting was held on August 6, 2015, from 6:30 pm to 8:30 pm at Dr. Augustine Ramirez Intermediate School in the City of Eastvale and a Public Outreach Meeting was held on August 19, 2015 from 6 pm to 8 pm at the Jurupa Valley City Hall in the City of Jurupa Valley. A total of fifteen comment letters/e-mails were received during the public availability period for the Draft IS/MND. These comment letters/e-mails with responses are included in the Final IS/MND.

The results of the analysis in the Initial Study and public review have determined the following: The project would have no effect on Land Use and Planning, Mineral Resources, and Recreation. The project would have less than significant effects on: Aesthetics; Agricultural Resources; Air Quality; Biological Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; Population and Housing; Public Services; Transportation and Traffic; Utilities and Service Systems; Mandatory Findings of Significance; and Cumulative Impacts. The proposed project would have a less than significant effect with mitigation on Paleontological Resources. The Initial Study/Mitigation Negative Declaration reflects the independent judgement and analysis of the County, in its capacity as a Responsible Agency.

**SUBMITTAL TO THE BOARD OF SUPERVISORS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**  
**FORM 11: Intent to Adopt a Final Initial Study/Mitigated Negative Declaration and Approve the Interstate 15/Limonite Avenue Interchange Improvements Project. 2<sup>nd</sup> District; [\$0]**

**DATE:** April 21, 2016

**PAGE:** 3 of 3

**Impact on Residents and Businesses**

The proposed Limonite Avenue/I-15 Interchange will reduce traffic congestion and improve overall traffic flow within the interchange and on the I-15 corridor for the current and future residents and businesses within the project region.

**SUPPLEMENTAL:**

**Additional Fiscal Information**

The project design, environmental, and right-of-way acquisition phases are funded from the Mira Loma Road and Bridge Benefit District funds and the Western Riverside County Transportation Uniform Mitigation Fee (TUMF) Zone Transportation Improvement Program. The Cities and County will work together to identify funds for construction. No County funds will be used for the construction of the interchange project.

**ATTACHMENTS:**

Figure 1- Regional Project Vicinity

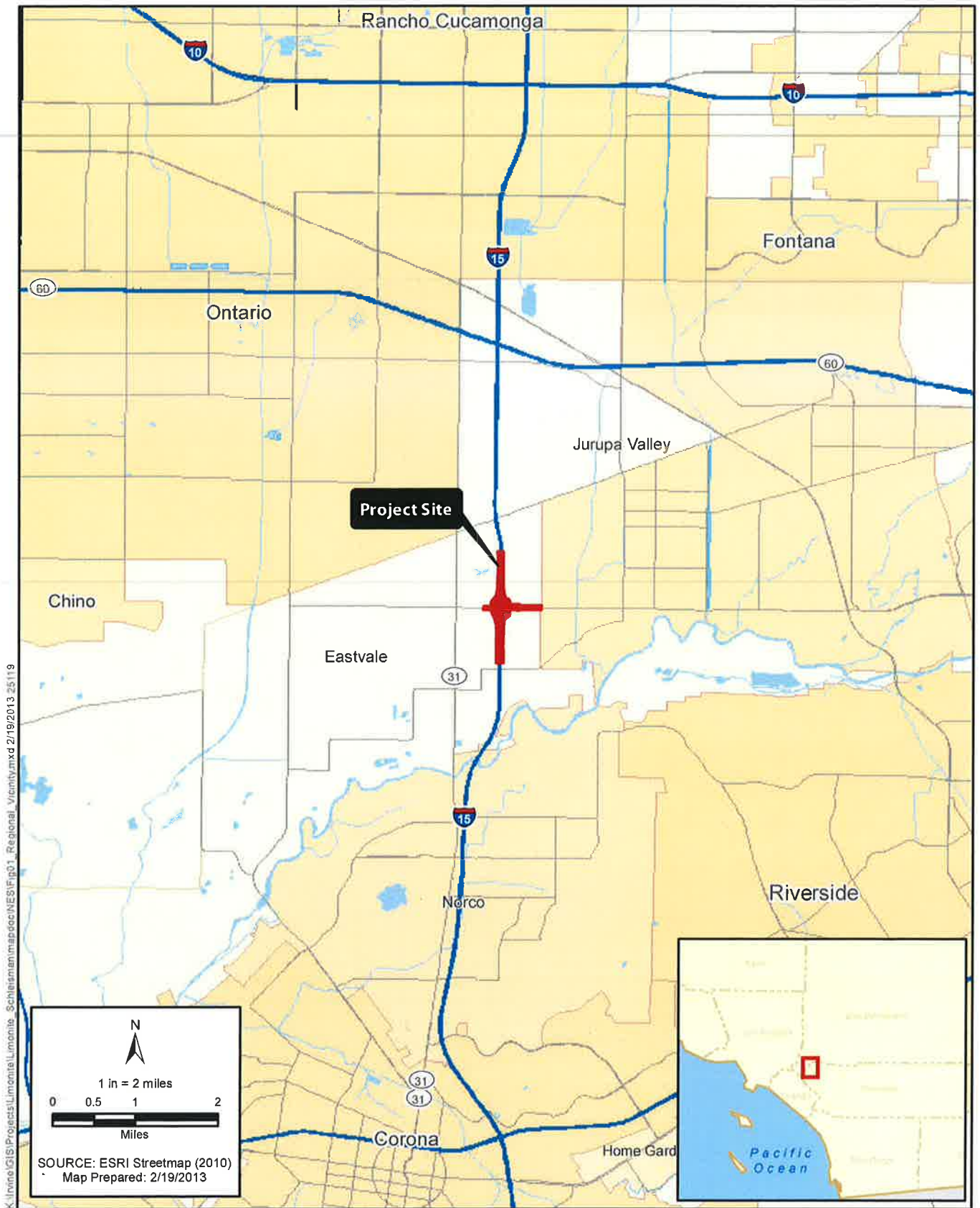
Figure 2- Project Location

Figure 3- Build Alternative Index Map & Sheets 1-8

Notice of Determination

Caltrans NEPA Categorical Exemption/Categorical Exclusion Determination Form

Final Initial Study with Mitigation Negative Declaration (on CD with Clerk of the Board)



**Figure 1**  
**Regional Vicinity**  
**Interstate 15/Limonite Avenue Interchange Improvements**





**Figure 2**  
**Project Location**  
**Interstate 15/Limonite Avenue Interchange Improvements**





**Figure 3 - Index**  
**Build Alternative**  
**Interstate 15/Limonite Avenue Interchange Improvements**





Figure 3 - Sheet 1 of 8  
Build Alternative  
Interstate 15/Limonite Avenue Interchange Improvements





Figure 3 - Sheet 2 of 8  
Build Alternative  
Interstate 15/Limonite Avenue Interchange Improvements



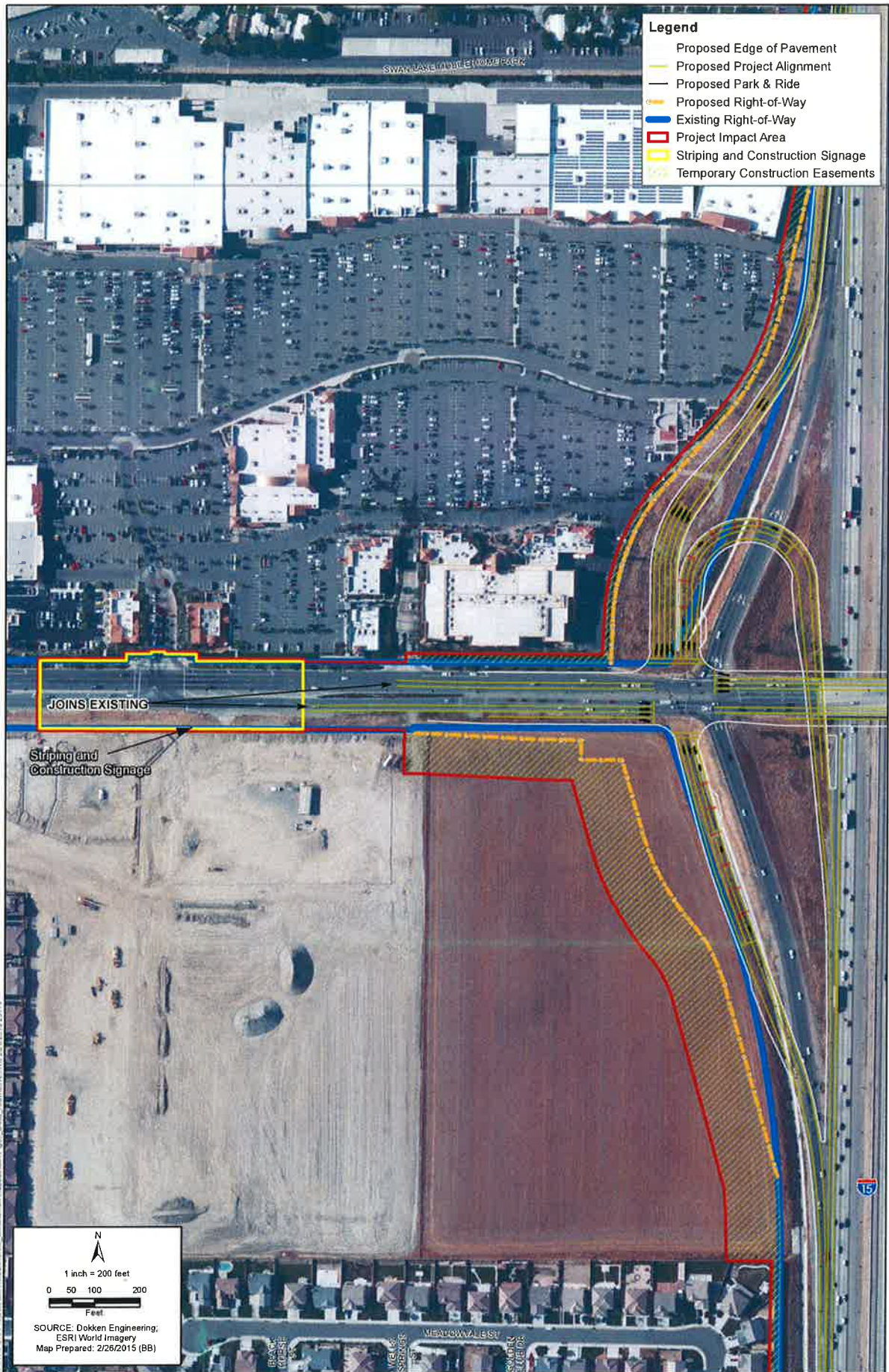


Figure 3 - Sheet 3 of 8  
Build Alternative  
Interstate 15/Limonite Avenue Interchange Improvements



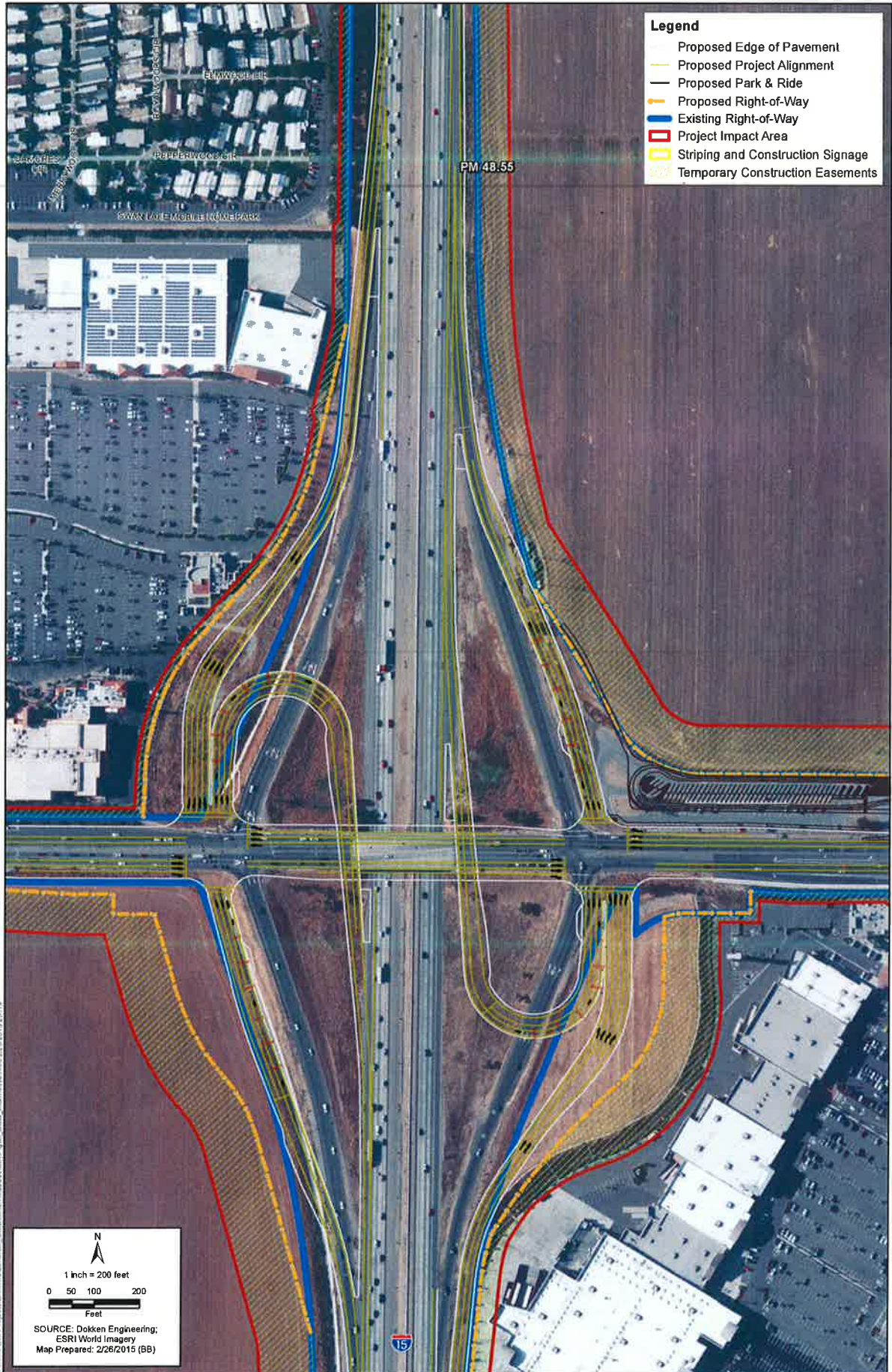


Figure 3 - Sheet 4 of 8  
 Build Alternative  
 Interstate 15/Limonite Avenue Interchange Improvements







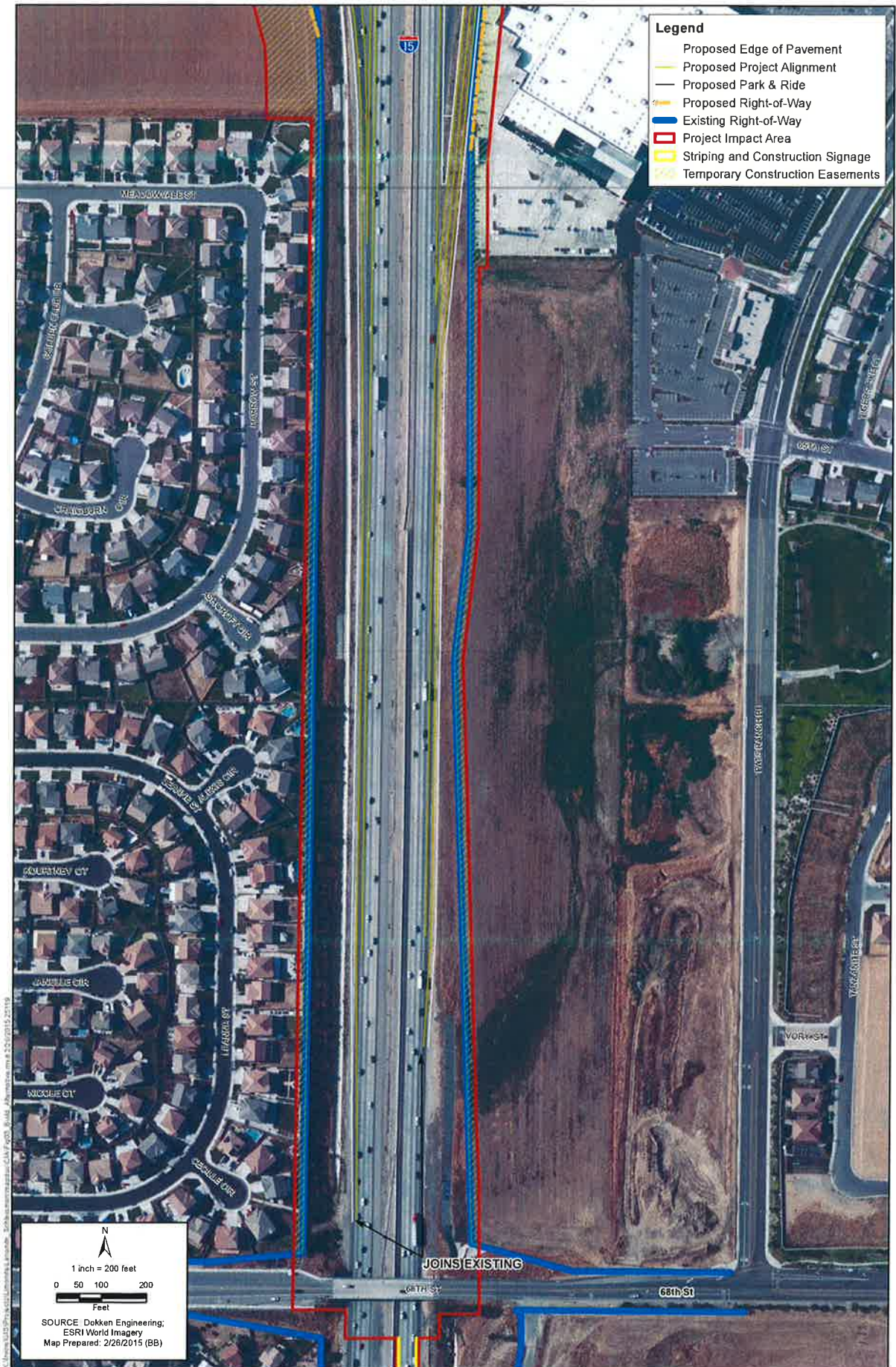


Figure 3 - Sheet 6 of 8  
 Build Alternative  
 Interstate 15/Limonite Avenue Interchange Improvements





Figure 3 - Sheet 7 of 8  
Build Alternative  
Interstate 15/Limonite Avenue Interchange Improvements





Figure 3 - Sheet 8 of 8  
Build Alternative  
Interstate 15/Limonite Avenue Interchange Improvements



**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**

<b>Dist 08 - RIV - 15</b>	<b>PM46.7/49.7</b>	<b>0E150</b>	<b>0800020201</b>
Dist.-Co.-Rte. (or Local Agency)	P.M./P.M	E.A/Project No.	Federal-Aid Project No. (Local Project)/Project No.

**PROJECT DESCRIPTION:** (Briefly describe project including need, purpose, location, limits, right-of-way requirements, and activities involved in this box. Use Continuation Sheet, if necessary.)

The County of Riverside (County), in cooperation with the California Department of Transportation (Department) and the cities of Eastvale and Jurupa Valley, proposes to improve the existing freeway interchange at Interstate 15 (I-15) and Limonite Avenue. Limonite Avenue is an existing four-lane facility traveling in an east-west direction. Within the project limits, I-15 is currently a six-lane access-controlled freeway with three mixed-flow lanes in each direction. The Limonite Avenue overcrossing is an east-west roadway, and currently provides two traffic lanes in each direction and two left-turn lanes at the I-15/Limonite Avenue on- and off-ramp intersections. To the west of I-15 (approximately 700 feet west of the intersection of the I-15 southbound ramps and Limonite Avenue), Limonite Avenue widens to three lanes in each direction.

**CEQA COMPLIANCE** (for State Projects only)

Based on an examination of this proposal and supporting information, the following statements are true and exceptions do not apply (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65062.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

**CALTRANS CEQA DETERMINATION** (Check one)

**Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

- Categorically Exempt. Class** . (PRC 21084; 14 CCR 15300 et seq.)
- Categorically Exempt. General Rule exemption.** [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15081[b][3].)]

**NA**

Print Name: Environmental Branch Chief

**NA**

Print Name: Project Manager/DLA Engineer

Signature

Date

Signature

Date

**NEPA COMPLIANCE**

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b).

**CALTRANS NEPA DETERMINATION** (Check one)

**23 USC 326:** The State has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). As such, the project is categorically excluded from the requirements to prepare an environmental assessment or environmental impact statement under the National Environmental Policy Act. The State has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding dated June 07, 2013, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

- 23 CFR 771.117(c): activity (c)**( )
- 23 CFR 771.117(d): activity (d)**( )
- Activity** \_\_\_ listed in Appendix A of the MOU between FHWA and the State

**23 USC 327:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under 23 USC 327.

**Kurt Heidelberg, Branch Chief**

**Rafih Achy, PE, Project Manager**

Print Name

Print Name

Signature 

Signature 

Date 7/3/16

Date 7/3/16

Date of Categorical Exclusion Checklist completion: 10/2015

Date of ECR or equivalent : 10/2015

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., CE checklist, additional studies and design conditions).





**NOTICE OF DETERMINATION**  
**COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT**



EA No. 0E150

SCH # 2015071051

**PROJECT NAME: Interstate 15/Limonite Avenue Interchange Improvements Project**

**DESCRIPTION AND LOCATION:** The County of Riverside (the County), in cooperation with the California Department of Transportation (the Department) and the cities of Eastvale and Jurupa Valley, proposes to improve the existing freeway interchange at Interstate 15 (I-15) and the Limonite Avenue Overcrossing. The project would widen the existing northbound and southbound on-and off-ramps, widen Limonite Avenue to three lanes in each direction through the interchange area, and replace the existing Limonite Avenue Overcrossing structure, as well as construct loop ramps in the southeast and northeastern quadrant (Partial Clover Leaf (Type L-9)). The project extends easterly and westerly along Limonite Avenue between Hamner Avenue and Wineville Avenue. And along I-15, improvements are proposed from approximately 1.5 miles south to 1.4 miles north of the existing Limonite Avenue Overcrossing. Adoption of the Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Plan (MMRP) will complete the environmental documentation for the project.

A CEQA Initial Study/ Mitigated Negative Declaration was prepared and completed in compliance with the California Environmental Quality Act (CEQA) Guidelines and the Riverside County CEQA Implementing Procedures. On May 17, 2016, the Board of Supervisors adopted the Interstate 15/Limonite Avenue Interchange Improvements Project Final Initial Study with Mitigated Negative Declaration (February 2016). The Initial Study/ Mitigated Negative Declaration (IS/MND) was circulated for public review from July 20, 2015 to August 19, 2015. The public Notice of Intent (NOI) to adopt the CEQA Initial Study/ Mitigation Negative Declaration was published in the Press Enterprise and La Prensa. A Public Meeting was held on August 6, 2015 from 6:30 pm to 8:30 pm at Dr. Augustine Ramirez Intermediate School in the City of Eastvale, and a Public Outreach Meeting was held on August 19, 2015 from 6 pm to 8 pm at the Jurupa Valley City Hall in the City of Jurupa Valley. A total of fifteen comment letters/e-mails were received during the public availability period for the Draft IS/MND. The Initial Study evaluated one Build Alternative and a No-Build Alternative. The Build Alternative is the proposed project. The Interstate 15/Limonite Avenue Interchange Improvements Project Final Initial Study with Mitigated Negative Declaration (February 2016) may be examined, along with the administrative record, at the Riverside County Transportation Department, 4080 Lemon Street, 8<sup>th</sup> floor, Riverside, California 92501.

1. The project [ will  will not] have a significant effect on the environment.
2.  An Environmental Impact Report was prepared and certified for this project pursuant to the provisions of CEQA.  
 A Mitigation Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3.  A Mitigation Monitoring Report Plan [ was ] was not adopted for this project
4.  A statement of Overriding Consideration [ was  was not] adopted for this project.
5.  **This is to certify that the Final Initial Study, Mitigated Negative Declaration, public comments and responses, and record of project approval, is available to the General Public at: The Riverside County Transportation Department, 4080 Lemon Street, 8<sup>th</sup> floor, Riverside, California 92501.**

*Russell Williams* Title Environmental Division Mgr. Date 4/20/16  
 Russell Williams

*Juan C. Perez* Title Director of Transportation Date 5/24/16  
 Juan C. Perez

**HEARING BODY OR OFFICER**  
 Board of Supervisors  
 Planning Commission

**ACTION ON PROJECT**  
 Approval  
 Disapproval  
 Date: \_\_\_\_\_

Verifying: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_  
**For County Clerk Use**

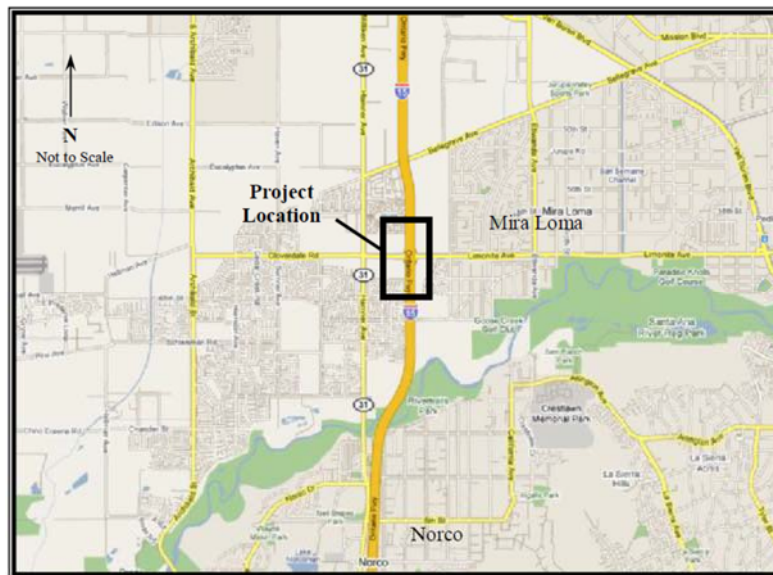


# Interstate 15/Limonite Avenue Interchange Improvements Project

CITIES OF EASTVALE AND JURUPA VALLEY  
RIVERSIDE COUNTY, CALIFORNIA  
DISTRICT 08 – RIV – 15 (PM 46.7/49.7)

EA 0E150  
PN 0800020201

Initial Study with Mitigated Negative Declaration



Prepared by the  
State of California Department of Transportation  
and in cooperation with the County of Riverside and the Cities of Eastvale  
and Jurupa Valley



February 2016







SCH # 2015071051  
08-RIV-15-PM 46.7/49.7  
PN 08-0002-0201/EA 0E150

Improve the I-15/Limonite Avenue Interchange (Postmile 46.7 to Postmile 49.7) within the Cities of Eastvale and Jurupa Valley, Riverside County, California.

## **INITIAL STUDY with Mitigated Negative Declaration**

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA  
Department of Transportation

Responsible Agencies: County of Riverside, City of Eastvale, and City of Jurupa Valley

\_\_\_\_\_  
Date of Approval

\_\_\_\_\_  
DAVID BRICKER  
Deputy District Director  
District 08 Division of Environmental Planning  
California Department of Transportation







## MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code  
PN 0800020201  
SCH: 2015071051

### ***Project Description***

The County of Riverside (County), in cooperation with the California Department of Transportation (Department) and the cities of Eastvale and Jurupa Valley, proposes to improve the existing freeway interchange at Interstate 15 (I-15) and Limonite Avenue. Limonite Avenue is an existing four-lane facility traveling in an east-west direction. Within the project limits, I-15 is currently a six-lane access-controlled freeway with three mixed-flow lanes in each direction. The Limonite Avenue Overcrossing is an east-west roadway, and currently provides two traffic lanes in each direction and two left-turn lanes at the I-15/Limonite Avenue on- and off-ramp intersections. To the west of I-15 (approximately 700 feet west of the intersection of the I-15 southbound ramps and Limonite Avenue), Limonite Avenue widens to three lanes in each direction. The I-15 median is currently unimproved and depressed with Type K barriers along the northbound outer edge of the median shoulder and south along the southbound outer edge of the median shoulder. Commercial and retail land uses are located to the northwest, southwest, and southeast of the interchange area. A Park and Ride facility is located along Limonite Avenue near the existing I-15 northbound on-ramp and residential land uses are also located in the vicinity of the interchange.

The project extends along Limonite Avenue between Hamner Avenue and Wineville Avenue. Along I-15, improvements are proposed from approximately 1.5 miles south to 1.4 miles north of the existing Limonite Avenue Overcrossing. The proposed project would replace the existing Limonite Avenue Overcrossing and would widen the roadway from four lanes to six lanes. Specifically, the project would widen the existing northbound and southbound on-and off-ramps, widen Limonite Avenue to three lanes in each direction through the interchange area, and replace the existing Limonite Avenue Overcrossing structure.

### ***Determination***

The Department has prepared an Initial Study for this project and, following public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on:

- Land Use and Planning;
- Mineral Resources; and
- Recreation.

In addition, the proposed project would have less than significant effects on:

Aesthetics; Agricultural Resources; Air Quality; Biological Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; Population and Housing; Public Services; Transportation and Traffic; Utilities and Service Systems; Mandatory Findings of Significance; and Cumulative Impacts.



The proposed project would have a less than significant effect with mitigation on Cultural Resources because the following mitigation measure would reduce potential effects on Paleontological Resources:

- **PALEO-1:** A Paleontological Mitigation Plan (PMP) shall be developed and implemented prior to commencement of project construction. The PMP shall follow the guidelines of the Department and the Society of Vertebrate Paleontology (SVP). The PMP shall include the following:
  - Attendance by a qualified paleontologist at the preconstruction meeting to consult with the grading and excavation contractors.
  - On-site presence of a paleontological monitor to inspect for paleontological resources on a full-time basis during the original cutting of previously undisturbed deposits of high paleontological resource potential and on a part-time basis during the original cutting of previously undisturbed deposits of low paleontological resource potential.
  - Salvage and recovery of paleontological resources by the qualified paleontologist or paleontological monitor.
  - Collection of stratigraphic data by the qualified paleontologist and/or paleontological monitor to provide a stratigraphic context for recovered paleontological resources.
  - Preparation (repair and cleaning), sorting, and cataloguing of recovered paleontological resources.
  - Donation of prepared fossils, field notes, photographs, and maps to a scientific institution with permanent paleontological collections, such as the San Bernardino County Museum (SBCM).
  - Completion of a final summary report that outlines the results of the mitigation program.

The PMP shall also incorporate the general guidelines for conformable impact mitigation to significant nonrenewable paleontological resources as developed by the Society of Vertebrate Paleontology (1995). A PMP shall be prepared and submitted to the Department for review during the Plans, Specifications, and Estimates (PS&E) phase of the project.

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DAVID BRICKER  
Deputy District Director  
District 08 Division of Environmental Planning  
California Department of Transportation

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Date

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# Chapter 1 Proposed Project

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Changes have been made to this Environmental Document since the public circulation of the Initial Study with Proposed Negative Declaration (draft IS/MND) from July 20, 2015, to August 19, 2015. Public and agency comments received during the circulation of the draft IS/MND and the public meetings held on August 6 and 19, 2015, resulted in refinements that have been incorporated into this Initial Study with Mitigated Negative Declaration. A vertical line in the outside margin indicates changes to the text in relation to the corresponding part in the draft IS/MND.

## 1.1 Project Location

The County of Riverside, in cooperation with the California Department of Transportation (Department) and the cities of Eastvale and Jurupa Valley, proposes to improve the existing freeway interchange at Interstate 15 (I-15) and Limonite Avenue, located within the cities of Eastvale and Jurupa Valley in Riverside County, California. The project extends along Limonite Avenue between Hamner Avenue and Wineville Avenue. Along I-15, improvements are proposed from approximately 1.5 miles south to 1.4 miles north of the existing Limonite Avenue Overcrossing (OC). Commercial and retail land uses are located to the northwest, southwest, and southeast of the interchange area. A Park and Ride facility is located along Limonite Avenue near the existing I-15 northbound on-ramp. Vacant land and residential land uses are also located in the vicinity of the interchange. Figures 1 and 2 in Section 1.3 show the project vicinity and location maps.

## 1.2 Project Description

This section describes the proposed action and the design alternatives that were developed to meet the identified need through accomplishing the defined purpose(s), while avoiding or minimizing environmental impacts.

Limonite Avenue is an existing four-lane facility traveling in an east-west direction. Within the project limits, I-15 is currently a six-lane access-controlled freeway with three mixed-flow lanes in each direction. The Limonite Avenue Overcrossing is an east-west roadway, and currently provides two traffic lanes in each direction and two left-turn lanes at the I-15/Limonite Avenue on- and off-ramp intersections. To the west of I-15 (approximately 700 feet west of the intersection of the I-15 southbound ramps and Limonite Avenue), Limonite Avenue widens to three lanes in each direction. The I-15 median is currently unimproved and depressed with Type K barriers along the northbound outer edge of the median shoulder and south along the southbound outer edge of the median shoulder.

The project extends along Limonite Avenue between Hamner Avenue and Wineville Avenue. Along I-15, improvements are proposed from approximately 1.5 miles south to 1.4 miles north of the existing Limonite Avenue OC. The proposed project would replace the existing Limonite Avenue OC and would widen the roadway from four lanes to six lanes. Specifically, the project would widen the existing northbound and southbound on- and off-ramps, widen Limonite Avenue to three lanes in each direction through the interchange area, and replace the existing



Limonite Avenue Overcrossing structure. The Limonite Avenue OC, an east-west roadway, currently provides two traffic lanes in each direction and two left-turn lanes at the ramp intersections.

Two viable alternatives have been selected for consideration. The Build Alternative, consisting of a Partial Clover Leaf (Type L-9) configuration, proposes replacing the existing OC structure and constructing loop ramps in the southeast and northwest quadrants. The No-Build Alternative proposes to maintain the existing interchange configuration.

### **1.2.1 Purpose and Need**

#### **Purpose**

The purpose of the proposed project is to:

- reduce projected traffic congestion at the I-15/Limonite Avenue interchange, and
- improve traffic flow on the regional transportation system.

#### **Need**

The proposed project is needed to reduce traffic congestion at the I-15/Limonite Avenue interchange. Based on the most recent update of the Riverside County General Plan, the cities of Eastvale and Jurupa Valley plan to add a substantial number of residences and businesses in the coming years, which is anticipated to result in substantial traffic and would require a number of transportation and circulation improvements to accommodate this increased volume of traffic, including improvements to the I-15/Limonite Avenue Interchange. According to the California Department of Finance, Riverside County is projected to have the largest population growth of any county in California between 2010 and 2016, almost doubling during this period from 2.2 million to an estimated 4.0 million residents (California Department of Finance, January 2013). According to the Western Riverside Council of Governments forecasts, Eastvale is projected to grow from 53,670 residents in 2010 to 68,300 by 2035, and Jurupa Valley is projected to grow from 95,004 residents in 2010 to 126,000 by 2035, an increase of 27 percent and 33 percent, respectively. Employment in these cities is projected to grow even more rapidly, with employment in Eastvale rising from 3,113 in 2010 to an estimated 10,100 and in Jurupa Valley from 23,641 in 2010 to 53,500, an increase of 224 percent and 126 percent, respectively (Western Riverside Council of Governments 2011).

Although the I-15/Limonite Avenue interchange ramp intersections currently operate at an acceptable level of service (LOS)<sup>1</sup>, by design year 2040, the ramp intersections at the I-15/Limonite Avenue interchange will have insufficient capacity to accommodate the forecasted traffic demand. Operation of the I-15/Limonite Avenue Interchange ramps are anticipated to worsen by opening year (2018) and to continue to degrade as traffic volumes increase unless improvements are made to the transportation system. Without the proposed project, it is projected that the northbound and southbound I-15 on- and off-ramp intersections with Limonite

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<sup>1</sup> The ability of a highway to accommodate traffic is typically measured in terms of LOS. Traffic flow is classified by LOS, ranging from LOS A (free-flow traffic with low volumes and high speeds) to LOS F (traffic volume exceeds design capacity with forced flow and substantial delays).

Avenue will function at an unacceptable LOS (F) during both the AM and PM peak hours in design year 2040.

An analysis of the merge/diverge traffic operations at the I-15 on- and off-ramps indicate that in year 2018 the northbound I-15 off-ramp to Limonite Avenue will function at an unacceptable LOS (F) during the PM peak hour and the northbound I-15 on-ramp from Limonite Avenue will function at an unacceptable LOS F during the AM peak hour; the southbound I-15 on-ramp from Limonite Avenue is also predicted to operate at an unacceptable LOS (E). In 2040 the I-15 off-ramp to Limonite Avenue is projected to operate at an unacceptable LOS during the AM and PM peak hours.

The existing, opening year, and design year LOS without the project for intersections and merge/diverge locations are presented in Table 1-1.

**Table 1-1. Existing, Opening Year, and Design Year LOS (No-Build)**

Location	Existing Year (2011)		Opening Year (2018)		Design Year (2040)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Intersection						
I-15/Limonite Avenue Southbound On/Off-Ramps	C	C	B	C	F	F
I-15/Limonite Avenue Northbound On/Off-Ramps	B	C	C	D	F	F
Merge/Diverge						
Limonite Avenue Off-Ramp (northbound)	D	D	D	F	E	F
Limonite Avenue On-Ramp (northbound)	E	D	F	D	D	D
Limonite Avenue Off-Ramp (southbound)	D	D	D	D	C	C
Limonite Avenue On-Ramp (southbound)	E	D	E	D	D	D

Shaded entries exceed acceptable levels of service

## 1.2.2 Alternatives

### **Build Alternative (Partial Clover Leaf Interchange Alternative) (Preferred Alternative)<sup>2</sup>**

The proposed project would replace the existing Limonite Avenue Overcrossing and would widen the roadway from four lanes to six lanes (see Figure 3 in Section 1.3). Specifically, the project would widen the existing northbound and southbound on-and off-ramps, widen Limonite Avenue to three lanes in each direction through the interchange area, and replace the existing Limonite Avenue OC structure. The interchange would be reconstructed as a partial clover leaf layout with loop on-ramps in the northwest and southeast quadrants. The three-lane direct on-ramps in the northeast and southwest quadrants would have California Highway Patrol (CHP) enforcement areas and maintenance pads, and would be metered with one lane on each ramp

<sup>2</sup> This alternative was referred to as Alternative 3 in the Project Study Report.



occupancy vehicles (HOV). The three-lane loop on-ramps would also include one dedicated HOV lane. The off-ramps in the northwest and southeast quadrants would consist of two lanes at the freeway diverge point and would widen to four lanes at the ramp intersections with Limonite Avenue. Each of the on- and off-ramps would have increased acceleration and deceleration lane lengths at the freeway merge/diverge points. The OC structure, a proposed two-span cast-in-place pre-stressed concrete box girder bridge, would accommodate the six through lanes, 4-foot bike lanes, 8-foot shoulders, 8-foot sidewalks, a 14-foot median, and two 12-foot right turn lanes, and would also accommodate the future ultimate widening of I-15 to a 12-lane facility. To accommodate the new interchange and widened Limonite Avenue, the Park and Ride facility located along the north side of Limonite Avenue and east of the interchange would be reconfigured within its currently allotted space. The driveway for the Park and Ride lot would remain in approximately the same location where it currently exists. Sidewalks along Limonite Avenue outside of the OC limits would vary from 6 to 8 feet in width. Potholing and utility relocations would also occur as part of the project. As part of the project, the realigned southbound off-ramp from I-15 would remove a portion of an existing 12- to 14-foot berm. The removal of this berm would be addressed through the inclusion of a noise barrier in this location. Existing walls are located within the project impact area along the south side of Limonite Avenue between Pats Ranch Road and Wineville Avenue, to the south of Limonite Avenue along the west side of I-15, and along Daybreak Drive along the west side of I-15. These existing walls would not be removed or relocated as part of the Build Alternative. Temporary construction easements in these areas would provide construction access only. Temporary construction signage would be installed prior to construction and would remain in place throughout the construction period. Striping would also occur and the locations for the construction signage and striping are identified on Figure 3, in Section 1.3.

The project is proposed for funding from the County of Riverside (County Road and Bridge Benefit District funds) and the Western Riverside County Transportation Uniform Mitigation Fee (TUMF) Zone Transportation Improvement Program. Additional future funding will likely be from local City funds and federal funding sources. The proposed project is included in the Southern California Association of Government's 2015 Federal Transportation Improvement Program (FTIP) and 2012 Regional Transportation Plan (RTP) (Project ID RIV011233).

The total estimated cost for the project, escalated for the year of construction, is \$46,497,000 for the Build Alternative (Alternative 3), which includes right of way and construction costs.

### **No-Build Alternative<sup>3</sup>**

Under the No-Build Alternative, no interchange improvements would be constructed at the I-15/Limonite Avenue Interchange. The I-15/Limonite Avenue Interchange would remain as is without any improvements. This alternative, however, does not preclude the construction of future improvements. The No-Build Alternative would not meet the project purpose, which is to reduce projected traffic congestion at the I-15/Limonite Avenue interchange, and to improve traffic flow on the regional transportation system. As shown in Table 1-1, the I-15 on- and off-ramp intersections with Limonite Avenue are projected to operate at an unacceptable LOS (F) in the design year (2040), which is not consistent with the project purpose and need.

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<sup>3</sup> This alternative was referred to as Alternative 1 in the Project Study Report.

### 1.2.3 Identification of a Preferred Alternative

The Initial Study (with Proposed Mitigated Negative) (IS/MND) was circulated to the public for review from July 20, 2015, to August 19, 2015. During the circulation period, public review comments regarding the IS/MND were received by Caltrans and reviewed. After all comments from the public were considered, the Project Development Team selected the Build Alternative as the Preferred Alternative on September 9, 2015. The Build Alternative meets the purpose and need of the proposed project because it reduce projected traffic congestion at the I-15/Limonite Avenue interchange, and improves traffic flow on the regional transportation system within the project limits. The Build Alternative provides a substantial improvement with regard to traffic congestion over the No-Build Alternative. Such improvements are consistent with state, regional, and local transportation plans. A comparison of LOS between the build and no-build conditions is presented in Table 1-2. The data reflect an overall improvement in traffic conditions in 2018 and 2040 under the proposed Build Alternative when compared to the No-Build Alternative condition. As shown in Table 1-2, all locations that are predicted experience an unacceptable LOS (i.e., LOS E or F) in the opening year (2018) and future year (2040) under the no-build scenario are predicted to operate and an acceptable LOS under the build condition.

**Table 1-2. Existing, Opening Year, and Design Year LOS**

Location	Existing Year (2011)		Opening Year (2018)		Design Year (2040)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
			(No-Build/Build)		(No-Build/Build)	
<b>Intersection</b>						
I-15/Limonite Avenue Southbound On/Off-Ramps	C	C	B/A	C/C	<u>F</u> /C	<u>F</u> /D
I-15/Limonite Avenue Northbound On/Off-Ramps	B	C	C/B	D/B	<u>F</u> /B	<u>F</u> /D
<b>Merge/Diverge</b>						
Limonite Avenue Off-Ramp (northbound)	D	D	D/A	<u>F</u> /B	<u>E</u> /A	<u>F</u> /A
Limonite Avenue On-Ramp (northbound)	<u>E</u>	D	<u>F</u> /C	D/B	D/B	D/B
Limonite Avenue Off-Ramp (southbound)	D	D	D/A	D/A	C/A	C/A
Limonite Avenue On-Ramp (southbound)	<u>E</u>	D	<u>E</u> /B	D/B	D/B	D/B

Bolded, underlined, entries exceed acceptable levels of service

In addition, the Build Alternative is consistent with the project description in the current 2015 FTIP (Project ID RIV011233) and is identified in the 2012 RTP.

The No-Build Alternative would not meet the objectives of the proposed project, which is to reduce projected traffic congestion at the I-15/Limonite Avenue interchange and to improve traffic flow on the regional transportation system. The No-Build Alternative maintains the existing interchange and Limonite Avenue configurations through the project limits. It does not address the projected capacity deficiencies that are expected to increase as growth and development continue and traffic demand increases. This alternative would not be consistent with the 2012 RTP and the 2015 FTIP.

In accordance with the California Environmental Quality Act (CEQA), the Initial Study has determined that the proposed project, with the implementation of identified mitigation measures, will not have a significant effect on the environment, and a Mitigated Negative Declaration has been prepared and adopted.

### **1.3 Project Maps**



INSERT Figure 1 Regional Vicinity Map

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INSERT Figure 2      Project Location



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INSERT Figure 3 Build Alternative Index Page and map sheets (there are nine sheets plus the index and each should have a “Page Intentionally Left Blank” on the back of each

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*Figure 3 sheet 1*

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*Figure 3 sheet 2*

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*Figure 3 sheet 3*

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## 1.4 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

**Table 1-3. Permits, Reviews, and Approvals**

<b>Agency</b>	<b>Permit/Approval</b>	<b>Status</b>
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement	Application to be submitted after approval of Environmental Document. Permit anticipated to be obtained February 2016.
State Water Resources Control Board	Clean Water Act Section 402—National Pollutant Discharge Elimination System (NPDES)	SWPPP to be submitted after approval of Environmental Document. Permit anticipated to be obtained February 2016.
Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	Application to be submitted after approval of Environmental Document. Permit anticipated to be obtained February 2016.
U.S. Army Corps of Engineers	Clean Water Act Section 404 Nationwide Permit 14	Permit application to be submitted after approval of Environmental Document. Permit anticipated to be obtained February 2016.
U.S. Fish and Wildlife Service	Section 7 Consultation, MSHCP Consistency Determination	Obtained, see Appendix F.



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## Chapter 2 CEQA Checklist

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.

Aesthetics	Agriculture Resources	Air Quality
Biological Resources	Cultural Resources	Geology/Soils
Greenhouse Gas Emissions	Hazards & Hazardous Materials	Hydrology/Water Quality
Land Use/Planning	Mineral Resources	Noise
Population/Housing	Public Services	Recreation
Transportation/Traffic	Utilities/Service Systems	Mandatory Findings of Significance

This CEQA checklist identifies physical, biological, social and economic factors of the human environment that might be affected by the proposed project. The checklist achieves the important statutory goal of integrating the requirements of CEQA with the environmental requirements of other laws.

In many cases, background studies performed in connection with proposed projects indicate no environmental impacts. A “NO IMPACT” answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included directly after the cited environmental resource. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts.

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.		
<input checked="" type="checkbox"/>	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.		
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.		
<input type="checkbox"/>	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.		
<input type="checkbox"/>	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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to the earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.		
<table border="1" style="width: 100%;"> <tr> <td style="width: 60%; vertical-align: top;">                 Signature                  Aaron Burton, Senior Environmental Planner                  District 08 Division of Environmental Planning                  California Department of Transportation             </td> <td style="width: 40%; vertical-align: top;">                 Date             </td> </tr> </table>		Signature Aaron Burton, Senior Environmental Planner District 08 Division of Environmental Planning California Department of Transportation	Date
Signature Aaron Burton, Senior Environmental Planner District 08 Division of Environmental Planning California Department of Transportation	Date		

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## 2.1 Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

### Regulatory Setting

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities” (CA Public Resources Code [PRC] Section 21001[b]).

#### 2.1.1 Discussion of Environmental Evaluation Question 2.1 – Aesthetics

The information used in this section is from the January 2014 *I-15/Limonite Avenue Interchange Improvement Project Visual Impact Assessment (VIA)* (Caltrans 2014a).

- a) **No Impact:** The proposed project site is located within a mix of residential, commercial, and vacant land. According to the *VIA*, there are no scenic vistas within the project area.
- b) **No Impact:** The proposed project is not located within an officially designated National Scenic Byway, or State or County Scenic Highway. Therefore, the proposed project would not damage scenic resources within a scenic highway.
- c) **Less than Significant Impact:** The effects of the proposed project on the existing setting and viewshed are analyzed in the *VIA* (January 2014). The visual quality of four Key Views (A, B, C, and D) were rated based on viewer response. Any changes as a result of the proposed project to visual resources within these key views were evaluated. It was concluded that the visual quality of Key View A and Key View B would not change as a result of the proposed project and the visual quality of Key View C and Key View D would slightly improve with the inclusion of aesthetic treatment/landscaping or hardscaping at the medians along Limonite Avenue. The proposed project would not block views of visual resources and the overall visual quality of the area would not decrease.

During construction of the proposed project, temporary activities such as grading, asphalt laying, construction vehicle movement and construction material vehicle shipments, and other routine construction activities within the I-15 right of way and project area would be

visible by motorists traveling along I-15 and adjacent roadways, and from adjacent residential and commercial properties. Construction-related materials, such as road-building materials, staging areas, stockpiles, temporary traffic barriers, and construction equipment would also be visible to these viewer groups. Viewer groups would experience a change in their physical view of the interchange; however, the change would be temporary and construction would be subject to local ordinances regarding construction. The construction area would be kept clean in regards to trash and standard special provisions regarding site maintenance would be implemented.

- d) **Less than Significant Impact:** As detailed in the *VIA*, the addition of lighting features, retaining walls, and additional paved surfaces are potential sources of light, glare, and heat. However, while additional paved surfaces may cause additional reflective heat, light, and glare, this is not anticipated to be substantially different from the existing condition and would be minimized with fractured rib texture or similar aesthetic texture. In addition, lighting for the project would be shielded away from adjacent uses.

Areas may need to be lighted during construction. This additional lighting would be temporary and would be subject to local ordinances regarding construction time periods of lighting.

### 2.1.2 Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required; however, the following minimization measures will be implemented to minimize potential impacts. These will be designed and implemented with concurrence of the District Landscape Architect.

- **AES-1:** Per the Department's standards regarding erosion control, exposed slopes will be revegetated.
- **AES-2:** Lighting for the project will be shielded.
- **AES-3:** The design and implementation of aesthetic elements shall be coordinated between local agencies and the Department and incorporated during final design.
- **AES-4:** Aesthetic treatments shall be coordinated during final design. At a minimum, decorative railing shall be used at the Overcrossing, medians shall be aesthetically treated with hardscaping and wall treatments for the Overcrossing and retaining walls shall include fractured rib texture (or other similarly aesthetic texture).
- **AES-5:** Existing landscaping will be replaced in-kind (Ratio of 1:1) (24-inch box), or if smaller plant material is chosen, then a 5:1 plant replacement ratio and one type of ground cover (grass) will be installed.
- **AES-6:** Plant material will be installed with irrigation in a meandering design within the interchange.
- **AES-7:** The sound wall shall have front planting vines and an irrigation system (controller included) shall be applied to it.
- **AES-8:** The meter with non-potable water will be installed as part of this project. The front planting will also be installed.



## 2.2 Agricultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p><b>II. AGRICULTURE RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
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 checked="" type="checkbox"/>	<input 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"/>
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"/>

### Regulatory Setting

The California Environmental Quality Act (CEQA) requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

#### 2.2.1 Discussion of Environmental Evaluation Question 2.2 – Agricultural Resources

The information used in this section is from the October 2013 *I-15/Limonite Avenue Interchange Improvement Project Community Impact Assessment (CIA) Memorandum* (Caltrans 2013c).

- a) **Less than Significant Impact:** According to the *CIA Memorandum*, portions of the proposed project would be located on soils mapped as “Prime Agriculture,” “Farmland of Statewide Importance,” and “Unique Farmland,” by data from the California Department of

Conservation, Farmland Mapping and Monitoring Program (FMMP). However, according to the California Department of Conservation (DOC), the designated farmland areas are not subject to the provisions of the Farmland Protection Policy Act (FPPA) because they are committed to urban use

The 2012 City of Eastvale and 2011 Jurupa Valley General Plan Land Use maps have designated these areas for future non-agricultural land uses with a time horizon of at least 20 years. Some of the area has recently been developed with retail land uses, such as the Eastvale Gateway South Center located at Limonite Avenue and Hamner Avenue. The western portion of the proposed project is located within the City of Eastvale General Plan Land Use designations of Freeway and Commercial Retail. The eastern portion of the proposed project is located within the City of Jurupa Valley General Plan Land Use designations of Industrial Park (I-P), Single Family Dwellings (R-1), and General Plan Community Overlay (CCO). Therefore, according to local plans, the area is committed for non-agricultural urban uses. As such, this area is not subject to FPPA and the project would result in a less than significant impact on agricultural resources. Therefore, less than significant impacts on designated farmlands would occur.

- b) **No Impact:** As indicated in the *CIA Memorandum*, the proposed project area is zoned for non-agricultural uses and is not subject to the provisions of the FPPA. In addition, there are no agricultural preserves or parcels under Williamson Act contract within the project area. Therefore, the proposed project would not conflict with existing zoning for agricultural use or Williamson Act contracts.
- c) **No Impact:** As detailed in response (a), the project area is zoned for urban uses; therefore, no impacts would occur on forest land, timberland, or Timberland Production.
- d) **No Impact:** The proposed project would not result in the loss or conversion of forest land.
- e) **No Impact:** The proposed project would improve the existing interchange at I-15 and Limonite Avenue and would not involve changes that would result in the conversion of Farmland to non-agricultural use or forest land to non-forest use.

### **2.2.2 Avoidance, Minimization, and/or Mitigation Measures**

No avoidance, minimization, and/or mitigation measures are required.

## 2.3 Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>III. AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management 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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Regulatory Setting

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM), which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM<sub>10</sub>) and particles of 2.5 micrometers and smaller (PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>). In addition, national and state standards exist for lead (Pb) and state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H<sub>2</sub>S), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

### 2.3.1 Discussion of Environmental Evaluation Question 2.3 – Air Quality

The information used in this section is from the October 2013 *I-15/Limonite Avenue Interchange Improvement Project Final Air Quality Report* (Caltrans 2013a).

- a) **No Impact:** A project would conflict with or obstruct implementation of a regional air quality plan if it would be inconsistent with the growth assumptions of the plan, in terms of population, employment, or regional growth in vehicle miles traveled (VMT). The

proposed project is included in the regional emission analysis conducted by the Southern California Association of Governments (SCAG) for the conforming 2012–2035 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (adopted by SCAG on April 4, 2012), as Project ID RIV011233 and the Federal Transportation Improvement Program (FTIP). The Federal Highway Administration (FHWA) issued an Air Quality Conformity Determination letter for the proposed project on December 1, 2015 (see Appendix E). In that letter FHWA confirmed that the proposed project conforms to the State Implementation Plan (SIP). Therefore, the proposed project would not conflict or obstruct implementation of an air quality plan.

- b) **Less than Significant Impact:** As detailed in the *Air Quality Report*, when compared with Baseline/Existing 2011 conditions, the proposed project would result in decreases of reactive organic gas (ROG), carbon monoxide (CO), nitrogen oxide (NO<sub>x</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub> emissions at the project's opening year in 2015. Because VMT increases when compared with existing conditions (due to ambient traffic growth), these emissions reductions are attributable to the retirement of older, higher emitting vehicles.

The proposed project would result in an increase in CO<sub>2</sub> emissions compared with Baseline/Existing 2011 conditions and is further discussed in Chapter 3. These impacts would be less than significant.

Temporary construction emissions would occur for approximately 16 months during construction of the proposed project. Pollutant emissions would vary daily based on the level of activity, specific operations, and prevailing weather operations. Short-term air quality degradation may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment also are anticipated and would include CO, NO<sub>x</sub>, ROG, directly emitted particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and toxic air contaminants, such as diesel exhaust particulate matter. As detailed in the *Air Quality Report*, construction-period criteria pollutant emissions were estimated using the Sacramento Metropolitan Air Quality Management District's Roadway Construction Emissions Model version 7.1.3. This model is considered adequate by the South Coast Air Quality Management District (SCAQMD) for estimating road construction emissions for the purpose of CEQA analysis. The analysis concluded that the only pollutant to exceed the SCAQMD Regional Emissions Daily Significance Threshold would be NO<sub>x</sub> during grading/excavation activities. However, this exceedance would be temporary and would be minimized through the implementation of exhaust and fugitive dust emission control measures listed below in Section 2.3.2.

Based on comments received from SCAQMD on the draft IS/MND, the construction period air quality impacts related to the I-15/Limonite Avenue Interchange project were recalculated using the South Coast Air Quality Management (SCAQMD) approved and recommended California Emissions Estimator Model (CalEEMod) (version 2013.2.2). CalEEMod was utilized since the Roadway Construction Emissions Model does not have the capability to calculate emissions following the application of minimization measures, which CalEEMod is able to provide. The supplemental analysis demonstrates that NO<sub>x</sub> emissions after implementation of minimization measures would not exceed SCAQMD significance criteria. Therefore, air pollutant emissions during construction would be a less than significant impact on air quality.

- c) **Less than Significant Impact:** As detailed in the *Air Quality Report*, the proposed project would result in a decrease in all criteria pollutants at Opening Year 2015 when compared with the Baseline/Existing Year 2011 condition. However, the SCAQMD Regional Emissions Daily Significance Threshold would be exceeded for NO<sub>x</sub> during grading/excavation activities. This exceedance would be temporary and would be minimized through the implementation of exhaust and fugitive dust emission control measures listed below in Section 2.3.2. Please see Appendix E supplemental analysis that demonstrates that NO<sub>x</sub> emissions after implementation of minimization measures would not exceed SCAQMD significance criteria. Therefore, the proposed project would result in a less than significant temporary increase of a criteria pollutant.

As previously mentioned, the Federal Highway Administration (FHWA) issued an Air Quality Conformity Determination letter for the proposed project on December 1, 2015. In that letter FHWA confirmed that the proposed project conforms to the State Implementation Plan (SIP).

- d) **Less than Significant Impact:** As discussed above in Responses (b) and (c), sensitive receptors adjacent to the project would be exposed to pollutants during construction from grading and construction equipment. These pollutants would dissipate rapidly, and would be minimized through the implementation of exhaust and fugitive dust emission control measures listed below in Section 2.3.2. Therefore, there would be a less than significant impact.
- e) **Less than Significant Impact:** Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site. Such odors would be quickly dispersed below detectable thresholds as distance from the site increases. Therefore, the impacts due to objectionable odors would be less than significant.

### 2.3.2 Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required; however, implementation of the following Department Standard Specifications, SCAQMD Rule 403 requirements, and standard Department measures would minimize potential impacts:

- **AQ-1:** The construction contractor shall comply with the Department's Standard Specifications in Section 14 (2010).
  - o Section 14-9.01 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.
  - o Section 14-9.02 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.
- **AQ-2:** Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emission or at the right of way line, depending on local regulations.
- **AQ-3:** Spread soil binder on any unpaved roads used for construction purposes and all project construction parking areas.

- **AQ-4:** Wash off trucks as they leave the right of way as necessary to control fugitive dust emissions.
- **AQ-5:** Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment, as provided in California Code of Regulations, Title 17, Section 93114.
- **AQ-6:** Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction impacts on existing communities.
- **AQ-7:** Locate equipment and material storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly.
- **AQ-8:** Establish Environmentally Sensitive Areas (ESAs) or their equivalent near sensitive air receptors where construction activities involving extended idling of diesel equipment would be prohibited, to the extent feasible.
- **AQ-9:** Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.
- **AQ-10:** Cover all transported loads of soils and wet materials prior to transport or provide adequate freeboard (space from the top of the material to the top of the truck) to minimize emissions of dust (particulate matter) during transportation.
- **AQ-11:** Promptly and regularly remove dust and mud on paved public roads from construction activity and traffic to decrease particulate matter.
- **AQ-12:** Route and schedule construction traffic to avoid peak travel times as much as possible to reduce congestion and related air quality impacts caused by idling vehicles along local roads.
- **AQ-13:** Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulate in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emission issues; controls, such as dampened straw, may be needed.
- **AQ-14:** To control the generation of construction-related fugitive dust emissions, the Department will require contractors to comply with SCAQMD Rule 403 requirements.
- **AQ-15:** Use of lighter colored pavement where feasible.
- **AQ-16:** Use EPA Tier-3 compliant off-road construction equipment during project construction.
- **AQ-17:** The following measures would ensure that adverse air quality impacts during construction are minimized:
  - Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained, the lead agency shall use trucks that meet EPA 2007 model year NO<sub>x</sub> emissions requirements.
  - Require all on-site construction equipment to meet the following:



- All off road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
- A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.
- Encourage construction contractors to apply for SCAQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for SCAQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: [Bhttp://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines](http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines).
- Require the use of electricity from power poles rather than temporary diesel or gasoline power generators, when feasible.
- Provide temporary traffic controls such as a flag person, during all phases of significant construction activity to maintain smooth traffic flow.
- Reroute construction trucks away from congested streets or sensitive receptor areas, to the extent possible.
- Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM10 generation.
- Improve traffic flow by signal synchronization.
- Limit soil disturbance to the amounts analyzed in the Draft MND.
- All materials transported off-site shall be securely covered.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.
- Construct or build with materials that do not require painting, to the extent feasible.
- Require the use of pre-painted construction materials where possible.

## 2.4 Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES:</b> 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 type="checkbox"/>	<input checked="" 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 Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>

### Regulatory Setting

#### Wetlands and Other Waters

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation’s waters would be significantly degraded. The Section 404

permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the United States Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 Code of Federal Regulations [CFR] Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this EO states that a federal agency, such as the FHWA and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue

water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for additional details.

### Plants

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA).

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), CA Public Resources Code, Sections 2100-21177.

### Animal Species

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service) and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.4.1 below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

## Threatened and Endangered Species

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of FESA defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the CDFW. For species listed under both the FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

### **2.4.1 Discussion of Environmental Evaluation Question 2.4 – Biological Resources**

Information used in this section is from the April 2014 *I-15/Limonite Avenue Interchange Improvement Project Natural Environment Study (Minimal Impacts) (NES [MI])* (Caltrans 2014e).

- a) **Less than Significant Impact:** There are approximately 66.74 acres of potentially suitable habitat within the project impact area for the special-status burrowing owl. One burrowing owl was documented occupying the project impact area during the winter of 2012 and the species was present in December 2013. Although a breeding season focused survey was performed and burrowing owls were not found in the project impact area, there is potential for the species to occur. Measures **BIO-1** through **BIO-3** would ensure the project would not result in direct or indirect impacts on burrowing owl during construction of the proposed project.

There is a potential for impacts on special-status bats (California western mastiff bat) due to the removal of mature trees used as roosting sites in the biological study area (BSA). Measure **BIO-5** would ensure bats potentially roosting in the project area are not affected. Improvements to the Limonite Overcrossing would not affect potential bat roosts, as there are no suitable crevices for bats to roost in under the bridge. In addition, three special-status bats (pallid bat, California western mastiff bat, and big free-tailed bat) that are common to the region have a potential to forage within suitable habitat (ruderal and remnant Riversidian Sage Scrub [RSS]) in the BSA. The number of individuals that could potentially forage in the BSA is expected to be low.

There was also potential for several other special-status species to occur in the BSA, but they do not pose a constraint to the project because they were either confirmed to be absent by a focused survey or the species is already fully covered under the Multiple Species Habitat Conservation Plan (MSHCP) (i.e., take authorization is already provided to Permittees). Therefore, any potential direct impacts or impacts due to habitat modification (if the species was present) would be fully mitigated. No special-status fairy shrimp or MSHCP Narrow Endemic Plant Species were found during focused surveys within the project impact area and 100-foot buffer.

There is a potential for construction activities associated with the proposed project to directly affect nesting birds and their habitat (including raptors) during the bird breeding season (March 1 through August 31 for birds and January 15 through June 30 for raptors). Measures **BIO-2** through **BIO-4** would ensure there are no constraints to the project under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code. Although affecting a nesting bird would be an adverse impact, given the species potentially affected, it would be less than significant under CEQA.

- b) **No Impact:** As detailed in the NES (MI), the BSA is heavily disturbed and consists primarily of non-native and invasive plant species. Five vegetation classifications or communities were identified in the BSA and include: remnant RSS, mature tree, ruderal, agricultural, and developed. The term “remnant” has been applied to the RSS community as there are only noncontiguous patches of RSS that are too small to be considered a viable community. The four other remaining vegetation groups are not considered sensitive natural communities.

No wetlands or riparian vegetation are present in the 25-foot jurisdictional study area. No MSHCP riparian/riverine, vernal pools, and federally designated Critical Habitat are present within the BSA. The drainage features have been artificially created to capture surface runoff from the I-15 and to support existing and past agricultural activities. “With the exception of wetlands created for the purpose of providing mitigation or resulting from human actions to create open waters or from the alteration of natural stream courses, water features artificially created are not riparian/riverine resources under the MSHCP” (Dudek 2003). Therefore, the proposed project would have no impact on riparian or other sensitive natural communities.

- c) **Less than Significant Impact:** No federally protected wetlands as defined by Section 404 of the CWA were identified in the BSA; therefore, the project would not affect federally protected wetlands. However, there are approximately 0.68 acre of non-wetland Waters of the U.S. (WoUS) and Waters of the State (WoS) and 2.14 acres of unvegetated streambed



present within the BSA. No riparian vegetation is present within the BSA. Jurisdictional waters in the BSA consist of earthen ephemeral drainages, and concrete-lined ephemeral V-ditches and flood control channels. The earthen channels are primarily vegetated with nonnative grasses and ruderal vegetation such as Common Sunflower (*Helianthus annuus*), Shortpod Mustard (*Hirschfeldia incana*), riggut brome (*Bromus diandrus*), and telegraph weed (*Heterotheca grandiflora*), all species that occur in heavily disturbed areas. Concrete-lined drainages are unvegetated and constructed. All of the concrete-lined jurisdictional waters identified within the BSA were constructed in uplands to convey road runoff, are unvegetated, and are not naturally occurring drainage features.

The proposed project would affect a total of 0.67 acre (0.28 acre permanent, and 0.39 acre temporary) of non-wetland WoUS and WoS, and approximately 2.11 acres (0.76 acre permanent and 1.35 acres temporary) of CDFW unvegetated streambeds. These jurisdictional waters lack biological and hydrological functions and values as they are heavily disturbed and created to accommodate road runoff. Table 2-1 provides a summary of permanent and temporary impacts on jurisdictional waters by water feature. Figures 4 and 5 provide the locations and impacts of the jurisdictional aquatic resources within the BSA.

**Table 2-1. Summary of Permanent and Temporary Impacts on Jurisdictional Waters**

Feature	WoUS/WoS*		CDFW Unvegetated Streambed*	
	Permanent (acres/ linear feet)	Temporary (acres/ linear feet)	Permanent (acres/linear feet)	Temporary (acres/linear feet)
Drainage 1	<1/100 ac/27.7 l.f.	--	0.01 ac/27.7 l.f.	--
Drainage 2	--	--	--	0.14 ac/582.6 l.f.
Drainage 3	0.01 ac/151 l.f.	--	0.01 ac/151 l.f.	--
Drainage 4	--	<1/100 ac/51.67 l.f.	--	0.08 ac/338.1 l.f.
Drainage 5	--	0.01 ac/209.8 l.f.	--	0.02 ac/209.8 l.f.
Drainage 6	<1/100 ac/32.51 l.f.	--	<1/100 ac/32.51 l.f.	--
Drainage 7	--	0.03 ac/614 l.f.	--	0.08 ac/614 l.f.
Drainage 8	<1/100 ac/18.9 l.f.	--	<1/100 ac/18.9 l.f.	--
Drainage 9	<1/100 ac/26.4 l.f.	--	<1/100 ac/26.4 l.f.	--
Drainage 10	0.07 ac/743.7 l.f.	--	0.23 ac/743.7 l.f.	--
Drainage 11	0.16 ac/1,127 l.f.	0.34 ac/2,497 l.f.	0.47 ac/1,127 l.f.	1.03 ac/2,497 l.f.
Drainage 12	<1/100 ac/30.2 l.f.	--	<1/100 ac/30.2 l.f.	--
Drainage 13	<1/100 ac/12 l.f.	--	<1/100 ac/12 l.f.	--
Drainage 14	--	<1/100 ac/100 l.f.	--	<1/100 ac/100 l.f.
Drainage 15	--	<1/100/23 l.f.	--	<1/100 ac/23 l.f.
Drainage 16	--	<1/100ac/31 l.f.	--	<1/100 ac/31 l.f.
Depression 1	0.03 ac	--	0.03 ac	--
Depression 2	0.01 ac	--	0.01 ac	--
	0.28 ac/ 2,169.41 l.f.	0.39 ac/ 3,526.47 l.f.	0.76 ac/ 2,169.41 l.f.	1.35 ac/ 4,395.50 l.f.
<b>Total</b>	0.67 ac/5,695.88 l.f.		2.11 ac/6,564.90 l.f.	

\*No USACE wetlands or riparian vegetated streambeds would be affected by the project.  
Source: NES (MI), 2014.

Figure 4 Index

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Figure 4 page 1

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Figure 4 page 2

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A permit under Section 404 of the federal CWA would be required and obtained through USACE for encroachment into federal non-wetland WoUS. Because this is a transportation project and the permanent project impacts would be less than 0.5 acre, it is anticipated that a Nationwide Permit 14 would meet the requirements under Section 404 of the CWA. The fill of WoS would also trigger the need for Section 401 CWA Water Quality Certification through the RWQCB. In addition, the impact on 2.11 acres of CDFW unvegetated streambeds requires a Streambed Alteration Agreement under Section 1600 of the California Fish and Game Code. These jurisdictional waters lack biological/hydrological functions and values and there would be no net loss of wetlands. Therefore, removal of these features would not represent a significant impact under CEQA. Due to lack of functions and values, and the heavily disturbed nature of these jurisdictional resources, mitigation for permanent loss of WoUS/WoS (0.28 acre), and CDFW (0.76 acre) jurisdictional waters would likely be 1:1 or less, such as through the purchase of mitigation bank credits through the Riverside-Corona Resources Conservation District in-lieu-fee program; however, this would be negotiated during the permitting process.

- d) **No Impact:** As discussed in the NES (MI), there are no riparian-riverine areas or linkages/cores within the BSA. Therefore, the proposed project would not interfere with the movement of any native or migratory wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- e) **No Impact:** The proposed project would not conflict with any local policies or ordinances protecting biological resources.
- f) **Less than Significant Impact:** The proposed project occurs within the Western Riverside County MSHCP, within the Eastvale Plan area. It does not occur within an MSHCP Criteria Area or within an MSHCP corridor or linkage area. The project is not located in a criteria cell or on Public/Quasi-Public (PQP) lands. As discussed in the NES (MI), the proposed project is a Covered Activity and take authorization for MSHCP fully Covered Species is afforded under the Plan. Improvements to the interchange are identified in the MSHCP as falling under the jurisdiction of the Department, as described in the MSHCP text for Covered Activities. The proposed project would be subject to the requirements of the MSHCP and therefore would not be in conflict with the MSHCP.

An MSHCP consistency determination was provided by e-mail on July 21, 2014. In this determination it states that “the project as proposed is consistent with the requirements of the MSHCP” (refer to Appendix F).

#### 2.4.2 Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures will be implemented to minimize potential impacts:

- **BIO-1: Burrowing Owl Preconstruction Survey and Avoidance.** A preconstruction presence/absence survey for burrowing owl following MSHCP protocol must be conducted within 30 days prior to construction. The preconstruction survey will include the project impact area and a 300-foot buffer if between March 1 and August 31 (nesting season), and a 100-foot buffer if outside of this window. If the species is found nesting, construction will

not occur within a 300-foot buffer until either (1) a qualified ornithologist has confirmed that the pair is no longer nesting and all young (if present) are independently foraging or (2) active relocation by a properly permitted biologist will be performed with concurrence from CDFW and USFWS. If active relocation is required then CDFW and USFWS shall be notified prior to any relocation occurring. Development of a relocation plan shall be prepared and concurred with by USFWS, CDFW, and the Riverside Conservation Authority (RCA) prior to relocation. Passive relocation will not be utilized if burrowing owl relocation is required. This measure would be superseded by any burrowing owl preconstruction survey protocol required in an aquatic permit (CWA 401, 404; CDFW 1602) as long as no mortality occurs to burrowing owl.

- **BIO-2: MSHCP Construction Guidelines.** The project will implement the construction guidelines in MSHCP Volume I, Section 7.5.3, as applicable. These will be incorporated in conjunction with the BMP measures in **BIO-3**.
  - Plans for water pollution and erosion control will be prepared for all Discretionary Projects involving the movement of earth in excess of 50 cubic yards. The plans will describe sediment and hazardous materials control, dewatering or diversion structures, fueling and equipment management practices, use of plant material for erosion control. Plans will be reviewed and approved by the County of Riverside and participating jurisdiction prior to construction.
  - Clearing of natural vegetation will be performed outside of the active breeding season for birds as defined in the MSHCP (March 1 through June 30). If work needs to occur during this window, BIO-4 (below) will be implemented.
  - When work is conducted during the fire season (as identified by the Riverside County Fire Department) adjacent to vegetation, appropriate firefighting equipment (e.g., extinguishers, shovels, water tankers) shall be available on the site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventative methods shall be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventative actions, and responses to fires shall advise contractors regarding fire risk from all construction-related activities.
  - Training of construction personnel will be provided. A qualified biologist will conduct a training session for project personnel prior to grading. The training will include a description of the species of concern and its habitats, the general provisions of the FESA and the MSHCP, the need to adhere to the provisions of the FESA and the MSHCP, the penalties associated with violating the provisions of the FESA, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.
  - The qualified project biologist will monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint (MSHCP Vol. I, Section 7.5.3). Additionally, ongoing monitoring and reporting will occur for the



duration of the construction activity to ensure implementation of best management practices (BMPs).

- Construction employees will strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) will be the minimal area necessary to complete the project and will be specified in the construction plans. Construction limits will be demarcated using environmentally sensitive area fencing (e.g., orange snow screen). Exclusion fencing should be maintained until the completion of all construction activities.
- Exotic species removed during construction will be properly handled to prevent sprouting or regrowth.
- Sediment and erosion control measures will be implemented until such time soils are determined to be successfully stabilized.
- Short-term stream diversions will be accomplished by use of sand bags or other methods that will result in minimal instream impacts. Short-term diversions will consider effects on wildlife.
- Silt fencing or other sediment trapping materials will be installed at the downstream end of construction activities to minimize the transport of sediments off site.
- No erodible materials will be deposited into water courses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks.
- The footprint of disturbance will be minimized to the maximum extent feasible. Access to sites will occur on pre-existing access routes to the greatest extent possible.
- The limits of disturbance, including the upstream, downstream, and lateral extents, will be clearly defined and marked in the field. Monitoring personnel will review the limits of disturbance prior to initiation of construction activities.
- During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the project footprint will be avoided.
- Ongoing monitoring and reporting will occur for the duration of the construction activity to ensure implementation of best management practices.
- Active construction areas shall be watered regularly to control dust and minimize impacts on adjacent vegetation (MSHCP Vol. I, Section 7.5.3).
- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances shall occur only in designated areas within the proposed grading limits of the project site. These designated areas shall be clearly marked and located in such a manner as to contain runoff.

**BIO-3: Standard Best Management Practices.** MSHCP BMPs will be implemented during construction (MSHCP Volume I, Appendix C), as applicable. Some of the measures in **BIO-2** would also be considered BMPs and would apply in conjunction with the measures below.

- Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.

- The footprint of disturbance shall be minimized to the maximum extent feasible. Employees will be instructed that their activities are restricted to the construction areas. Access to sites shall be via pre-existing access routes to the greatest extent possible.
- When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing or other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments off site. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream.
- Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.
- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, CDFW, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- The qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
- The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
- To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
- The Permittee shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

**BIO-4: Preconstruction Nesting Bird Survey.** A pre-construction nesting bird survey will be conducted no more than 3 days prior to vegetation clearing, ground disturbance, or construction activities (including staging) during the breeding season (March 1 to August 31 for non-raptors, January 1 to June 30 for raptors). The survey will occur within the 300-foot buffer area for raptors and within the 200-foot buffer area for other birds. If nesting birds (or raptors) are found, an avoidance buffer will be established by a qualified biologist and will remain until a qualified biologist has determined that young have fledged or nesting activities have ceased. This measure will be superseded by any preconstruction nesting bird survey measure(s) required in an aquatic permit (CWA 401, 404; CDFW 1602).

**BIO-5: Preconstruction Bat Survey.** To prevent impacts on daytime bat roosts and maternity roosts, a qualified biologist experienced with southern California bat species will conduct bat and bat roosting site surveys prior to removal of mature trees. This preconstruction survey will be conducted at any mature tree proposed for removal and within any man-made structure (e.g.

bridges and culverts) that would be suitable for bat species within 100 feet of the project impact area/limits of disturbance (PIA/LOD). If roosting sites or bats are not found, a report confirming their absence will be sent to the CDFW and no further mitigation will be required.

If the preconstruction survey determines bats are roosting, and tree removal is scheduled to occur between October 1 and March 30 (outside of the maternity season of April 1 through September 30), the following two-step cutting process would occur to the tree roost:

1. Surrounding branches that do not house bats at the time that the eviction would occur would be removed. This would alter the condition of the roost tree, causing bats to abandon the roost.
2. The tree can then be fully removed. A visual inspection of the roost tree would be required prior to removal to verify that all bats have been successfully excluded. This work will be completed by a bat exclusion professional.

If the preconstruction survey finds bats to be roosting and tree removal is scheduled to occur during the maternity season (April 1 through September 30), a qualified biologist will monitor the roost to determine if the roost site is a maternal roost. This may be determined by either visual inspection of the roost for bat pups, if possible, or monitoring the roost after the adults leave for the night to listen for bat pups. If the roost is determined to not be a maternal roost, then the bats will be evicted as described above. If the roost is determined to be a maternal roost, eviction cannot occur during the nursery season, as bat pups cannot leave the roost until they have reached maturity. In this case, a 250-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) will be established around the roosting site, within which no construction-related impacts will occur until the bat pups are mature enough to permanently leave the roost.

If bat roosts are found within man-made structures during the maternity season (April 1 through September 30), no work will be permitted. In this case, a 250-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) will be established around the roosting site, within which no construction-related impacts will occur until the bat pups are mature enough to permanently leave the roost. If the roost is determined to not be a maternal roost, then bats will be evicted by a bat exclusion professional.

## 2.5 Cultural Resources

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

### Regulatory Setting

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation [36 Code of Federal Regulations (CFR) 800]. On January 1, 2014, The First Amended Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as CA Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet the National Register of Historic Places listing criteria. It further specifically requires the Department to inventory state-owned structures in its rights-of-way.

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils. Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA).

### 2.5.1 Discussion of Environmental Evaluation Question 2.5 – Cultural Resources

The information used in this section is from the November 2013 *I-15/Limonite Avenue Interchange Improvement Project Historic Property Survey Report (HPSR)* (Caltrans 2013d) and *I-15/Limonite Avenue Interchange Improvement Project Archaeological Survey Report (ASR)* (Caltrans 2013b).

- a) **No Impact:** According to the HPSR, the Department has determined that a finding of no impact is appropriate for the project because there are no historical resources within the project area limits, pursuant to CEQA Guidelines §15064.5(b)(3). As assigned by FHWA, the Department has determined a Finding of No Historic Properties Affected according to Section 106 PA Stipulation IX.A and 36 CFR 800.4(d)(1) is appropriate for this undertaking, and is hereby notifying the SHPO of this finding. The Department has determined that there are no State-owned cultural resources within the project area of potential effect (APE).
- b) **No Impact:** According to the ASR, there is a low likelihood of encountering subsurface archaeological material during activities associated with the proposed project. This was concluded because there has been past disturbance of the project area by construction and agricultural activities and the records search showed that no resources have been recorded within the APE and a field survey yielded no archaeological resources within the APE. Therefore, the proposed project would not cause a change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5.

The results of the literature and records search indicate that no cultural resources have been identified within the APE and one historic power line (Site #33-16681/13627/30-179857) is recorded adjacent to the APE. In addition to the literature and records search, the Native American Heritage Commission (NAHC) was contacted on October 17, 2012. The NAHC stated that a search of their Sacred Lands Database did not yield any sacred lands or traditional cultural properties within the project area.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

- c) **Less than Significant Impact with Mitigation:** Refer to Section 2.6, Paleontology.
- d) **No Impact:** Based on the results of the cultural resource record searches, surveys, and Native American Consultation detailed in the HPSR and ASR, there are no human remains within the project APE that would be affected by the proposed project.

If human remains are discovered, the provisions of **CR-2** below will be followed.

### 2.5.2 Avoidance, Minimization, and/or Mitigation Measures

The following standard avoidance and/or minimization measures will be implemented to minimize potential cultural resource impacts:

**CR-1:** If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

**CR-2:** If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact the District 08 Division of Environmental Planning; Gabrielle Duff, DEBC: (909) 383-6933 and Gary Jones, DNAC: (909) 383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.

## 2.6 Paleontological Resources

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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V(c). **CULTURAL RESOURCES:** Would the project:

c) 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"/>
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### 2.6.1 Regulatory Setting

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils.

Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA).

### 2.6.2 Discussions of Environmental Evaluation Question 2.5 – Cultural Resources

The information used in this section is from the October 2013 *I-15/Limonite Avenue Interchange Improvement Project Combined Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER)* (Caltrans 2013e)

**C) Less Than Significant with Mitigation.** As detailed in the PIR/PER, the proposed project is located in an area of high paleontological sensitivity. The young eolian deposits (Qye) and very old alluvial channel deposits (Qoa) within the project site have the potential to contain paleontological resources. It is possible that construction of the proposed project, in particular excavation for widening and replacement of the Overcrossing structure, would potentially result in negative impacts on these deposits, which have been assigned a high paleontological resource sensitivity. In order to reduce these impact, a Paleontological Mitigation Plan (PMP) (Measure PALEO-1) will be prepared and implemented.

### 2.6.3 Avoidance, Minimization, and/or Mitigation Measures

**PALEO-1:** A PMP shall be developed and implemented prior to commencement of project construction. The PMP shall follow the guidelines of the Department and the recommendations of the Society of Vertebrate Paleontology (SVP). These recommendations include:

- Attendance by a qualified paleontologist at the preconstruction meeting to consult with the grading and excavation contractors.
- On-site presence of a paleontological monitor to inspect for paleontological resources on a full-time basis during the original cutting of previously undisturbed deposits of high paleontological resource potential and on a part-time basis during the original cutting of previously undisturbed deposits of low paleontological resource potential.

- Salvage and recovery of paleontological resources by the qualified paleontologist or paleontological monitor.
- Collection of stratigraphic data by the qualified paleontologist and/or paleontological monitor to provide a stratigraphic context for recovered paleontological resources.
- Preparation (repair and cleaning), sorting, and cataloguing of recovered paleontological resources.
- Donation of prepared fossils, field notes, photographs, and maps to a scientific institution with permanent paleontological collections, such as the San Bernardino County Museum (SBCM).
- Completion of a final summary report that outlines the results of the mitigation program.
- The PMP shall also incorporate the general guidelines for conformable impact mitigation to significant nonrenewable paleontological resources as developed by the SVP (1995). A PMP shall be prepared and submitted to the Department for review during the Plans, Specifications, and Estimates (PS&E) phase of the project.



## 2.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>VI. GEOLOGY AND SOILS:</b> Would the project:				
a) Expose people or structures to 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 type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

### Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

Earthquakes are prime considerations in the design and retrofit of structures. The Department’s Office of Earthquake Engineering is responsible for assessing the seismic hazard for Department projects. Structures are designed using the Department’s Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge’s category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Department’s Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

### 2.7.1 Discussion of Environmental Evaluation Question 2.6 – Geology and Soils

The information used in this section is from the September 2013 Preliminary Geotechnical Design Report for the I-15/Limonite Avenue Interchange Improvement Project (GEOCON 2013) and the January 2014 Preliminary Materials Report for the I-15/Limonite Avenue Interchange Improvement Project (GEOCON 2014).

- a. i) No Impact:** The proposed project area is not within or adjacent to an Alquist-Priolo Earthquake Fault Zone. In addition, the project area is not located on any known “active” earthquake fault trace. Therefore, the potential to expose people or structures to adverse effects from ground rupture due to on-site active faulting is considered to be low, and no impacts are anticipated.
- a. ii) Less than Significant Impact:** The project area is within a seismically active region of Southern California and would therefore experience the effects of seismic ground shaking. The nearest known active fault to the project area is the Chino fault, which is part of the Elsinore Fault Zone and extends from the City of Corona to Chino Hills. The Chino fault is capable of generating a magnitude 6.0 to 7.0 earthquake<sup>4</sup>. Fill slopes associated with the project would be graded and compacted in accordance with the Department’s standard specifications to ensure avoidance of unstable earth surfaces. Compliance with the most current Department procedures regarding seismic design, which is standard practice on all Department projects, is anticipated to prevent any adverse effects related to seismic ground shaking. Seismic design would also meet County requirements under the Uniform Building Code (UBC). Therefore, through the incorporation of standard seismic design practices, the proposed project would result in a less than significant impact.
- a. iii) No Impact:** Liquefaction is a destructive secondary effect of strong seismic shaking. It occurs primarily in loose, saturated, fine- to medium-grained soils in areas where the groundwater table is within approximately 50 feet of the ground surface. Shaking causes the soils to lose strength and behave as liquid. Based on a review of as-built information, groundwater was not encountered within 65 feet of the ground surface and site soils were found to be dense to very dense. Groundwater at the project site is expected to be approximately 75 feet below ground surface. Therefore, the risk for liquefaction at the site is low. Since the potential for liquefaction is low, the potential for lateral spreading and other secondary effects, such as seismic-induced settlement, is also low. To confirm these preliminary conclusions, a comprehensive geotechnical study, including a field investigation and laboratory soil testing, would be performed during the PS&E phase of the proposed project. Any recommendations arising from that study would be implemented into the proposed project. No impact as a result of liquefaction is anticipated.
- a.iv) No Impact:** The project area is relatively flat and there would be a low probability for a landslide. Therefore, the proposed project would result in no impact.

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<sup>4</sup> Southern California Earthquake Data Center. [www.data.scec.org/significant/chino.html](http://www.data.scec.org/significant/chino.html).

- b) **Less than Significant Impact:** Approximately 51.4 acres of land would be cleared and grubbed, and an additional 3 acres of soil would be disturbed due to removal of existing pavement, under the proposed project. As a result of these activities, soil could be exposed to rain and wind, potentially causing accelerated erosion and loss of topsoil from the project site. Federal and state jurisdictions require that an approved Storm Water Pollution Prevention Plan (SWPPP) be prepared for projects that involve greater than one acre of disturbance. A SWPPP specifies BMPs that would minimize erosion and keep all products of erosion from moving off site into receiving waters. Earthwork in the project area would be performed in accordance with the most current edition of the Department's Standard Specifications, the project SWPPP, and the requirements of applicable government agencies, thereby minimizing impacts to less than significant levels under the proposed project.
- c) **No Impact:** The project would not be located on a geologic unit that is unstable or that would become unstable as a result of the project. As discussed above under Responses (a.iii) and (a.iv), the project is in an area that has low potential for liquefaction and subsidence and low probability of a landslide. Since the potential for liquefaction is low, the potential for lateral spreading and other secondary effects, such as seismic-induced settlement and collapse, is also low. A comprehensive geotechnical study, including a field investigation and laboratory soil testing, would be performed during the PS&E phase of the proposed project to confirm these findings. Any recommendations arising from that study would be implemented into the proposed project. Therefore, there would be no impact as a result of unstable geologic units.
- d) **Less than Significant Impact:** Soils within the project area are generally sandy loams, which show little change as moisture changes. Therefore, it is anticipated that the proposed project would not be constructed on expansive soils. However, a comprehensive geotechnical study, including a field investigation and laboratory soil testing, would be performed during the PS&E phase of the proposed project. Any recommendations arising from that study would be implemented into the proposed project. Therefore, the project would result in less than significant impacts.
- e) **No Impact:** The proposed project is an interchange improvement project and would not require septic tanks or water disposal systems.

### 2.7.2 Avoidance, Minimization, and/or Mitigation Measures

Measures **WQ-1** through **WQ-4** (from Section 2.9.2) would be implemented to minimize soil erosion.

## 2.8 Greenhouse Gas Emissions

### VII. GREENHOUSE GAS EMISSIONS: Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

While the Department has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is the Department's determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. The Department does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined below.

### 2.8.1 Discussion of Environmental Evaluation Question 2.7 – Greenhouse Gas Emissions

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles make up the largest source of GHG-emitting sources. The dominant GHG emitted is CO<sub>2</sub>, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change: "Greenhouse Gas Mitigation" and "Adaptation." "Greenhouse Gas Mitigation" is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)<sup>5</sup>.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing travel activity, 3) transitioning to lower GHG-emitting fuels, and 4) improving vehicle technologies/efficiency. To be most effective, all four strategies should be pursued cooperatively.<sup>6</sup>

<sup>5</sup> [http://climatechange.transportation.org/ghg\\_mitigation/](http://climatechange.transportation.org/ghg_mitigation/)

<sup>6</sup> [http://www.fhwa.dot.gov/environment/climate\\_change/mitigation/](http://www.fhwa.dot.gov/environment/climate_change/mitigation/)

## **Regulatory Setting**

This section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

### **State**

With the passage of several pieces of legislation including State Senate and Assembly Bills and Executive Orders, California launched an innovative and pro-active approach to dealing with GHG emissions and climate.

Assembly Bill 1493 (AB 1493), Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order (EO) S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to 1) year 2000 levels by 2010, 2) year 1990 levels by the 2020, and 3) 80 percent below the year 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

Assembly Bill 32 (AB 32), Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 sets the same overall GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.”

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least ten percent by 2020.

Senate Bill 97 (SB 97), Chapter 185, 2007, Greenhouse Gas Emissions: required the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board (CARB) to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a “Sustainable Communities Strategy” (SCS) that integrates transportation, land-use, and housing policies to plan for the achievement of the emissions target for their region.

Senate Bill 391 (SB 391) Chapter 585, 2009 California Transportation Plan: This bill requires the State's long-range transportation plan to meet California's climate change goals under AB 32.

## Federal

Although climate change and GHG reduction are a concern at the federal level; currently no regulations or legislation have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level GHG analysis.<sup>7</sup> FHWA supports the approach that climate change considerations should be integrated throughout the transportation decision-making process, from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies outlined by FHWA to lessen climate change impacts correlate with efforts that the state is undertaking to deal with transportation and climate change; these strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in travel activity.

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the “National Clean Car Program” and EO 13514 - *Federal Leadership in Environmental, Energy and Economic Performance*.

Executive Order 13514 (October 5, 2009): This order is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

U.S. EPA’s authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court’s ruling, U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court’s interpretation of the existing Act and EPA’s assessment of the scientific evidence that form the basis for EPA’s regulatory actions. U.S. EPA in conjunction with NHTSA issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010.<sup>8</sup>

The U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced

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<sup>7</sup> To date, no national standards have been established regarding mobile source GHGs, nor has U.S. EPA established any ambient standards, criteria or thresholds for GHGs resulting from mobile sources.

<sup>8</sup> <http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq>

GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On August 28, 2012, U.S. EPA and NHTSA issued a joint Final Rulemaking to extend the National Program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model year 2017-2025 standards this program is projected to save approximately four billion barrels of oil and two billion metric tons of GHG emissions.

The complementary U.S. EPA and NHTSA standards that make up the Heavy-Duty National Program apply to combination tractors (semi trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). Together, these standards will cut greenhouse gas emissions and domestic oil use significantly. This program responds to President Barack Obama's 2010 request to jointly establish greenhouse gas emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards will reduce CO<sub>2</sub> emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy duty vehicles.

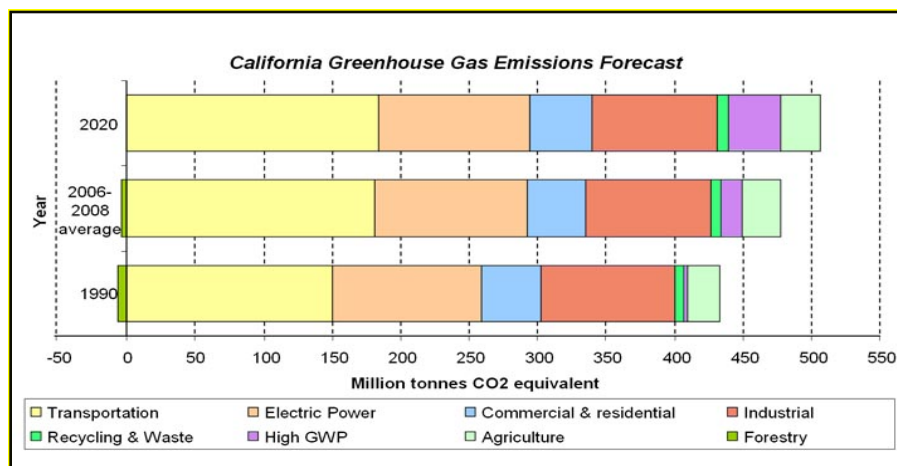
### **Project Analysis**

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.<sup>9</sup> In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

The AB 32 Scoping Plan mandated by AB 32 includes the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, the ARB released the GHG inventory for California (forecast last updated: October 28, 2010). The forecast is an estimate of the emissions expected to occur in 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.

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<sup>9</sup> This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

**Figure 6. California Greenhouse Gas Forecast**

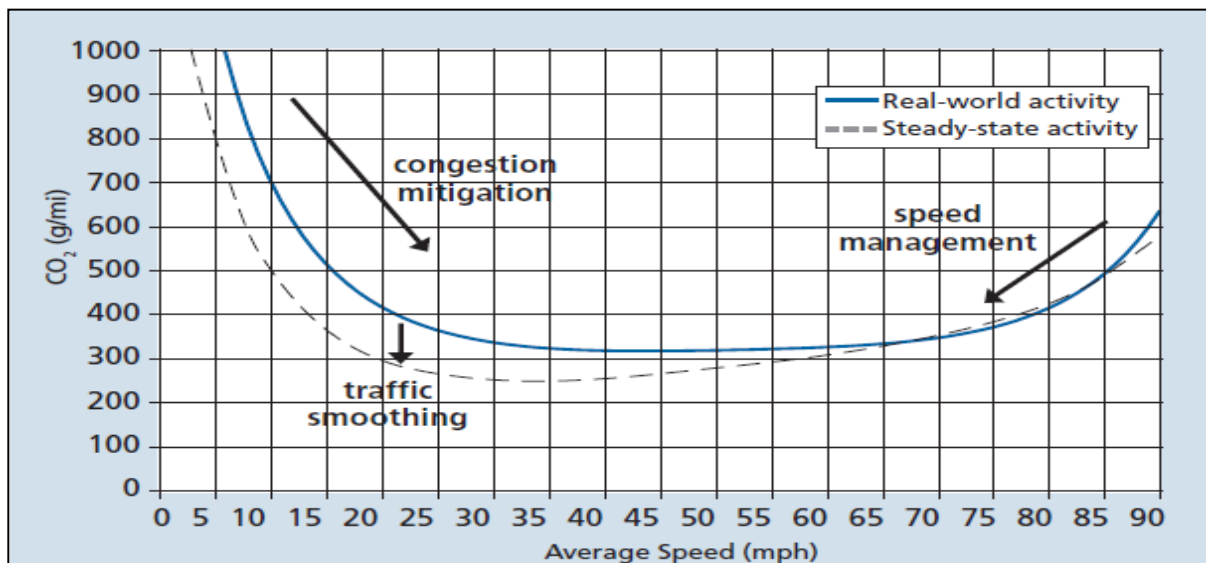
Source: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

The Department and its parent agency, the Transportation Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California’s GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.<sup>10</sup>

One of the main strategies in the Department’s Climate Action Program to reduce GHG emissions is to make California’s transportation system more efficient. The highest levels of carbon dioxide (CO<sub>2</sub>) from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 7 below). To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors GHG emissions, particularly CO<sub>2</sub>, may be reduced.

<sup>10</sup> Caltrans Climate Action Program is located at the following web address:  
[http://www.dot.ca.gov/hq/tpp/offices/ogm/key\\_reports\\_files/State\\_Wide\\_Strategy/Caltrans\\_Climate\\_Action\\_Program.pdf](http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf)



**Figure 7. Possible Effect of Traffic Operation Strategies in Reducing On-Road CO<sub>2</sub> Emission<sup>11</sup>**

Using EMFAC2011 emission factors within CT-EMFAC and traffic data provided by the traffic engineer (Dokken Engineering 2011), CO<sub>2</sub> emissions were forecast based on Baseline/Existing Year 2011, Opening Year 2018, and Horizon Year 2040 traffic conditions. The forecast of CO<sub>2</sub> emissions under the Build Alternative and No-Build Alternative is provided in Table 2-2. As shown in Table 2-2, the modeled CO<sub>2</sub> emissions at Opening Year 2018 and Horizon Year 2040 are higher than those for the Baseline/Existing Year 2011, which is attributed to the growth in VMT. When compared to the No-Build Alternative, CO<sub>2</sub> emissions are predicted to be less under the Build Alternative at Opening Year 2018 and Horizon Year 2040. It is important to note that these modeled CO<sub>2</sub> emission estimates are useful only for comparison between project alternatives. These estimates are not necessarily an accurate reflection of what the true CO<sub>2</sub> emissions will be because CO<sub>2</sub> emissions are dependent on other factors that are not part of the model, such as the fuel mix,<sup>12</sup> rate of acceleration, and the aerodynamics and efficiency of the vehicles.

The 2012–2035 RTP/SCS includes strategies to reduce VMT and associated per capita energy consumption from the transportation sector as well as mitigation measures related to energy that are designed to reduce consumption and increase the use and availability of renewable sources of energy in the region (Southern California Association of Governments 2012a). Potential mitigation programs identified in the 2012–2035 RTP/SCS to reduce GHG emissions include increased construction of infrastructure and automobile fuel efficiency to accommodate increased use of alternative-fuel motor vehicles as well as coordinating transportation, land use, and air quality planning to reduce VMT, energy use, and GHG emissions (Southern California Association of Governments 2012a).

<sup>11</sup> Traffic Congestion and Greenhouse Gases: Matthew Barth and Kanok Boriboonsomsin (TR News 268 May-June 2010) <<http://onlinepubs.trb.org/onlinepubs/trnews/trnews268.pdf>>

<sup>12</sup>EMFAC model emission rates are only for direct engine-out CO<sub>2</sub> emissions, not full fuel cycle. Fuel cycle emission rates can vary dramatically, depending on the amount of additives like ethanol and the source of the fuel components.

**Table 2-2. Summary of CT-EMFAC-Modeled CO<sub>2</sub> Emissions**

Scenario	Tons per Year CO <sub>2</sub> Emissions
Baseline/Existing 2011	25,358
2018 No-Build Alternative	30,556
2018 Build Alternative	30,353
2040 No-Build Alternative	62,758
2040 Build Alternative	59,749
<b>Build Alternative Increase/(Decrease) Compared to Baseline/Existing Year 2011</b>	
2018 Build Alternative vs. Baseline/Existing	4,996
2040 Build Alternative vs. Baseline/Existing	34,391
<b>Build Alternative Increase/(Decrease) Compared to No-Build Alternative</b>	
2018 Build Alternative vs. 2015 No-Build Alternative	(202)
2040 Build Alternative vs. 2035 No-Build Alternative	(3,009)
Source: Compiled by ICF International using traffic data provided by Dokken Engineering 2013 Calculation worksheets provided in Appendix F of the Air Quality Report.	

The EIR for the 2012–2035 RTP/SCS performed a GHG emission reduction strategy consistency analysis to evaluate impacts related to climate change associated with the 2012–2035 RTP/SCS. This consistency analysis evaluated consistency with the ARB; Public Utilities Commission; Business, Transportation, and Housing Agency; State and Consumer Services Agency; and EPA GHG reduction strategies and found that impacts on climate change are considered significant even with implementation of mitigation measures. To help mitigate impacts associated with the 2012–2035 RTP/SCS, SCAG identified mitigation measures to mitigate the impacts of growing transportation energy demand associated with the RTP (Southern California Association of Governments 2012a). Measures identified in the RTP that are applicable to the project are reflected under Air Quality (Section 2.3), Measures **AQ-6** and **AQ-15**; Biological Resources (Section 2.4), Measure **BIO-2**; and Public Services (Section 2.14), Measures **PS-2** through **PS-8**.

### Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by on-site construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

A qualitative analysis of construction-related emissions was provided in Section 3.2.2.1 of the Air Quality Report. As stated in Section 3.2.2.1, construction emissions of criteria pollutants are considered temporary emissions. This is not the case with GHGs because of the cumulative nature of GHGs, which remain in Earth's atmosphere long after the time of emission. As detailed in the construction emissions calculation worksheet provided in Appendix F of the Air Quality

Report, approximately 1,444 metric tons of CO<sub>2</sub> emissions associated with proposed project construction would be emitted into the atmosphere with construction of the Build Alternative.

### CEQA Conclusion

While the project would result in an increase in GHG emissions during construction, it is anticipated that the project would not result in any increase in operational GHG emissions. When compared with the No-Build Alternative, CO<sub>2</sub> emissions are predicted to be less under the Build Alternative at Opening Year 2018 and Horizon Year 2040. While it is the Department's determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance it is too speculative to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale to climate change, the Department is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following sections.

### Greenhouse Gas Reduction Strategies

#### *AB 32 Compliance*

The Department continues to be involved on the Governor's Climate Action Team as the ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies the Department is using to help meet the targets in AB 32 come from Former Governor Arnold Schwarzenegger's Strategic Growth Plan for California. The Strategic Growth Plan targeted a significant decrease in traffic congestion below 2008 levels and a corresponding reduction in GHG emissions, while accommodating growth in population and the economy. The Strategic Growth Plan relies on a complete systems approach to attain CO<sub>2</sub> reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as shown in Figure 8: The Mobility Pyramid.



**Figure 8. Mobility Pyramid**

The Department is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high-density housing along transit corridors. The Department works closely with local jurisdictions on planning activities, but does not have local land use planning authority. The Department also assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; the Department is doing this by supporting on-going research efforts at universities, by

supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that control of fuel economy standards is held by the U.S. EPA and ARB.

The Department is also working towards enhancing the State's transportation planning process to respond to future challenges. Similar to requirements for regional transportation plans under Senate Bill (SB) 375 (Steinberg 2008), SB 391(Liu 2009) requires the State's long-range transportation plan to meet California's climate change goals under Assembly Bill (AB) 32.

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas (GHG) emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future, statewide, integrated, multimodal transportation system.

The purpose of the CTP is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the CTP 2040 will identify the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the State's transportation needs.

Table 2-3 summarizes the Department and statewide efforts that it is implementing to reduce GHG emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).