

**INITIAL STUDY/  
MITIGATED NEGATIVE DECLARATION**

**SIERRA HIGHWAY BRIDGE  
OVER THE SANTA CLARA RIVER,  
BRIDGE NO. 53C1777L&R**

**Prepared for:**



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## EXECUTIVE SUMMARY

### ES.1 INTRODUCTION

The Sierra Highway Bridge over the Santa Clara River Project is located in the City of Santa Clarita. It is bounded on the north by Soledad Canyon Road, on the east by California State Route 14, on the south by Via Princessa, and on the west by Whites Canyon Road. The Interstate 5 Freeway is located west of the project site.

The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on Sierra Highway over the Santa Clara River. The northbound section of the bridge will be widened from the existing 43 feet to 52 feet without adding additional travel lanes. The 44-foot wide southbound concrete bridge will be replaced with a 52-foot wide concrete bridge.

Based on the findings of the analysis presented in the Initial Study, the City of Santa Clarita (City) has determined that a Mitigated Negative Declaration is the appropriate California Environmental Quality Act (CEQA) document for this project.

### ES.2 PROJECT DESCRIPTION

The City proposes to widen the northbound bridge deck and replace the southbound bridge of Bridge No. 53C1777L&R, located on Sierra Highway over the Santa Clara River. The Sierra Highway Bridge over the Santa Clara River Project (Proposed Project) will consist of widening the northbound section of the bridge from the existing 43 feet to 52 feet without adding additional travel lanes and replacing the existing 44-foot wide southbound concrete bridge with a 52-foot wide concrete bridge. An area of approximately 2.8 acres within the riverbed will be temporarily impacted by construction activities. Southern California Edison (SCE) plans to relocate a tubular steel pole from its existing location on Sierra Highway at the south end of the Sierra Highway Bridge. The new location will be approximately 10 feet west of the existing location.

The purpose of the project is to bring the bridge to the current state standard since the existing bridge is classified as functionally obsolete. Furthermore, the Proposed Project would provide improved vehicular and pedestrian circulation within the project site.

The Proposed Project is located in the City of Santa Clarita. It is bounded on the north by Soledad Canyon Road, on the east by California State Route 14, on the south by Via Princessa, and on the west by Whites Canyon Road. The Interstate 5 Freeway is located west of the project site, as shown in **Figure 2-1**.

Construction equipment will be operated in the riverbed during removal of the old southbound bridge and construction and removal of falsework to support the new southbound bridge. Project construction activities will occur in dry conditions only. However, if water exists in the riverbed during construction, the water will be diverted from the construction area by using K-rail, sandbags, and plastic sheeting to capture the upstream flow. Grading and clearing of vegetation will be required outside the riverbed to construct the abutments and wingwalls.

### ES.3 AVAILABILITY OF DOCUMENTS

Copies of the Initial Study and other documents utilized in conducting the environmental analysis for the Proposed Project are on file and available for review at the following location:

- Permit Center at City Hall, 23920 Valencia Boulevard, Suite 140, Santa Clarita, CA 91355 (draft mitigated negative declaration and supporting documents)
- City of Santa Clarita Library, Valencia Branch, 23743 W. Valencia Boulevard, Santa Clarita, CA 91355 (draft mitigated negative declaration, without supporting documents)

#### **ES.4 ENVIRONMENTAL DETERMINATION**

An Initial Study was prepared to identify the potential effects on the environment from the construction and occupation of the Proposed Project and to evaluate the significance of these effects. Based on the Initial Study, the Proposed Project would have less-than-significant effects or no impacts related to the following issues:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems

However, the environmental analysis presented in the Initial Study identifies a number of environmental impacts that require mitigation measures to be incorporated into the project that would effectively reduce potential impacts to less than significant levels or avoid the impacts. These are:

- Biological Resources
- Noise
- Transportation/Traffic

## MITIGATION MEASURES

Implementation of the following mitigation measures would avoid potential impacts identified in the Initial Study or reduce them to a less than significant level.

**Table MMRP-1**  
**Mitigation Monitoring and Reporting Program (MMRP)**

Potential Environmental Impact	Mitigation Measure	Level of Significance After Mitigation	Responsible Agency
<b>BIOLOGICAL RESOURCES</b>			
Temporary, indirect impacts on Burrowing Owl may occur due to noise from construction equipment that may indirectly affect the potential nesting, feeding or other natural behaviors.	<p><b>Mitigation Measure IV-1:</b> To avoid impacts on nesting birds, vegetation clearing and construction activities should take place between September 1<sup>st</sup> and February 14<sup>th</sup>, to avoid the nesting season of State and federally protected migratory birds. However, if construction occurs between February 15<sup>th</sup> and August 31<sup>st</sup>, the following should be implemented:</p> <ul style="list-style-type: none"> <li>• A pre-construction survey (within three days before work in the project areas) will be conducted by a qualified biologist to determine the presence or absence of active nests within, or adjacent to, the project sites. Project construction activities in staging areas should only occur following surveys by a qualified biologist.</li> <li>• If nesting birds are found, continuing construction will comply with all applicable state and federal statutes and the permit requirements from regulatory agencies.</li> </ul>	Less Than Significant Impact	City of Santa Clarita
If evidence of Burrowing Owls is observed during the pre-construction survey, then an additional mitigation measure is required to minimize potential temporary, indirect impacts.	<p><b>Mitigation Measure IV-2:</b> A focused survey is recommended to determine if Burrowing Owls are present on-site. Spring/nesting season surveys should be conducted during the peak of the breeding season, between April 15 and July 15. Winter season surveys should be conducted between December 1 and January 31. Surveys should be conducted according to CDFG and Burrowing Owl Survey Protocol and Mitigation Guidelines (California Burrowing Owl Consortium, 1993) to determine if Burrowing Owls are present on-site. The following general methods should be followed:</p> <ul style="list-style-type: none"> <li>• Four site visits consisting of morning and afternoon surveys should be conducted by a qualified biologist familiar with Burrowing Owl</li> </ul>	Less than Significant Impact	City of Santa Clarita

Potential Environmental Impact	Mitigation Measure	Level of Significance After Mitigation	Responsible Agency
	<p>habitat characteristics, burrow identification and signs;</p> <ul style="list-style-type: none"> <li>• The project area shall be covered by a 100% pedestrian survey, and observers shall record all signs of owls and burrows following an initial habitat assessment;</li> <li>• Surveys shall not be conducted during inclement weather;</li> <li>• Locations of burrows or burrow complexes shall be documented and mapped; and</li> <li>• The results of the focused burrowing owl survey will be valid for one year from date of survey.</li> </ul>		
<p>Impacts on special-status herpetological (amphibians and reptiles) species may occur because ground-disturbing activities are scheduled to occur within portions of the streambed.</p>	<p><b>Mitigation Measure IV-3:</b> A Project Biologist shall conduct pre-construction surveys within areas of suitable habitat for the Western Spadefoot and Coast Horned Lizard three days before the commencement of construction activities. The biologist will also monitor any vegetation and/or tree removal and construction activities to help the construction crew to avoid or reduce impacts. Designated special-status habitat areas and non-approved work areas shall be conspicuously marked to indicate where no construction activities shall be permitted to occur without approval from the lead jurisdictional agencies. Further consultation with agencies shall occur if either of these species is observed to be nesting or foraging on-site during construction.</p> <p>To reduce potential impacts on herpetological species to less-than-significant levels, construction activities within the streambed will occur only in dry conditions. Weather forecasts shall be monitored for possible storm events. Construction material, equipment and vehicles shall be removed from the channel before flow events or anticipated storms. No equipment shall be operated in water flows or in ponded areas within the channel. For ongoing streambed work, pre-construction monitoring shall occur after each flooding or precipitation event. This may result in re-staging of construction equipment because of changes in pooling, saturated soils, and meandering flows. Construction within the channel may resume once flows have receded, moisture content of the soils has stabilized, and the biological monitor has surveyed the area for aquatic species. Out of streambed work on top of the bridge deck would not require a monitor to be present for herpetological species.</p> <p>Further consultation with agencies will be necessary if special-status</p>	<p>Less than Significant Impact</p>	<p>City of Santa Clarita</p>

Potential Environmental Impact	Mitigation Measure	Level of Significance After Mitigation	Responsible Agency
	herpetological species are observed on-site during construction.		
<p>Both the USACE and the CDFG have jurisdiction over streams, watercourses, and wetlands. Filling or alteration of these areas may occur. RWQCB may also have jurisdiction.</p>	<p><b>Mitigation Measure IV-4:</b> The following permits will be required to complete this Project:</p> <p><u>Regional Water Quality Control Board (RWQCB).</u> The Los Angeles RWQCB and its sub-regional offices regulate most projects. The State Water Resources Control Board (State Water Board) directly regulates multi-regional projects and supports and coordinates the Program statewide. A written application for Clean Water Act Section 401 Water Quality Certification will be prepared by the project applicant, and submitted to the RWQCB along with a processing fee.</p> <p><u>United States Army Corps of Engineers (USACE).</u> USACE regulates the filling of wetlands, streams, rivers and other water bodies under Section 404 of the Clean Water Act. USACE issues permits of various kinds for the discharge of dredged and fill material into waters of the United States. It is illegal to place fill into waters of the U.S. without a USACE permit. Impacts on jurisdictional streambeds, channels or wetlands will require a Section 404 permit. An application for a Section 404 permit will be prepared by the project applicant to allow fill or dredged material to be placed in channels or wetlands on the project parcels. Construction activity within project channels or basins may require bank protections, such as gabions and riprap.</p> <p><u>California Department of Fish and Game (CDFG).</u> CDFG regulates diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any stream that supports fish or wildlife resources. Section 1600 requires any state or local governmental agency or public utility to notify CDFG prior to beginning a construction project that will:</p> <ul style="list-style-type: none"> <li>• Divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake;</li> <li>• Use materials from a streambed; or</li> <li>• Result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake.</li> </ul> <p>A CDFG Section 1600 Streambed Alteration Notification shall be prepared in accordance with CDFG standards and submitted to the South Coast Regional CDFG office for review and approval. The</p>	<p>Less than Significant Impact</p>	<p>City of Santa Clarita</p>



Potential Environmental Impact	Mitigation Measure	Level of Significance After Mitigation	Responsible Agency
	Streambed Alteration Notification will include, at a minimum, a detailed description of the proposed project, including grading plans, and a detailed description of the jurisdictional areas to be affected by the proposed project. It is illegal to alter the bed or bank of a stream or lake or their natural water flow without a CDFG Streambed Alteration Agreement.		
Riversidian Alluvial Fan Sage Scrub (RAFSS) is present within the impact area of the Proposed Project.	<p><b>Mitigation Measure IV-5:</b> If impacts on RAFSS vegetation cannot be avoided within the approved project area, impacts should be minimized to the extent practicable. A biological monitor shall assist construction crews with avoidance of sensitive vegetation to reduce impacts to less-than-significant levels. Sensitive habitat areas and non-approved work areas shall be conspicuously marked as “out-of-limits.” Equipment access and maneuvering shall occur in existing non-vegetated areas where possible. No access or construction activities shall be permitted to occur outside the approved work area without supervision by the biological monitor.</p> <p>Following construction, temporarily affected areas shall be returned to pre-construction contours and the project area shall be free of construction equipment, trash, debris, and deleterious materials. The sensitive vegetation will be allowed to naturally re-establish itself, unless otherwise directed by CDFG or other cooperating agency.</p>	Less than Significant Impact	City of Santa Clarita
<b>NOISE AND VIBRATION</b>			
Temporary construction noise will exceed noise and vibration limits at some residential property lines.	<b>Mitigation Measure XII-1:</b> Construction activity on sites within 300 feet of a residentially zoned property will be permitted between 7:00 a.m. and 7:00 p.m., Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturday. No construction work is permitted on Sundays, New Year’s Day, Independence Day, Thanksgiving Day, Christmas Day, Memorial Day, and Labor Day.	Less than Significant Impact	City of Santa Clarita
The Proposed Project will increase ambient noise levels and groundborne vibration levels.	<b>Mitigation Measure XII-2:</b> The City shall implement as many of the following measures as is practicable to reduce residential exposure during concrete cutting and other times when sensitive receivers will be exposed to more than 65 dBA $L_{eq}$ and/or to more than 80 VdB (groundborne vibration level). For saw cutting, the combination of source and receptor noise control	Less than Significant Impact	City of Santa Clarita

Potential Environmental Impact	Mitigation Measure	Level of Significance After Mitigation	Responsible Agency
	<p>measures will reduce exposures by at least 10 dBA.</p> <ul style="list-style-type: none"> <li>• Use “silent” blades for concrete saw cutting; these blades are typically constructed of layers of metal with different densities, which offer a sound-dampening effect. They are often laser-cut with slots that are filled with sound-dampening epoxy. This configuration can reduce saw blade noise by as much as 15 dBA.</li> <li>• Use vibratory pile emplacement, when feasible.</li> <li>• Pre-auger pile holes to reduce the duration of impact, when feasible.</li> <li>• On pile drivers, use a resilient pad between the pile and the hammer head, when feasible. This will reduce vibration impacts by a factor of two.</li> <li>• Where practical, replace proposed equipment with newer, and presumably quieter, models.</li> <li>• Where practical, replace equipment powered by internal combustion engines with electric-powered equipment, using available line current or generators kept far away from sensitive receivers.</li> <li>• Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with an intact and operational muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.</li> <li>• Ensure that all equipment items have the manufacturers’ recommended noise abatement features, including but not limited to mufflers, engine enclosures, and engine vibration isolators; and that these noise-reducing features are intact and operational.</li> <li>• Turn off idling equipment after no more than five minutes.</li> <li>• Wherever practical, enclose the work areas of individual pieces of equipment, or wall off one side of the construction site with noise barriers or noise curtains. Noise barriers may be constructed of readily available construction materials, such as plywood or blocks. Noise-absorbing “blankets” may be installed on the sides of the barriers closest to the noise source(s). Commercial barriers made of panels lined with sound-absorbing material may also be employed.</li> <li>• The length of a noise barrier should be greater than its height, and the noise source must not be visible from the receptor.</li> <li>• Noise barriers should be placed as close as possible to either the noise source or the receptors.</li> </ul>		

Potential Environmental Impact	Mitigation Measure	Level of Significance After Mitigation	Responsible Agency
	<ul style="list-style-type: none"> <li>When insulation material is part of a noise barrier, the noise-absorptive surfaces must face the noise source(s).</li> </ul>		
<b>TRANSPORTATION/TRAFFIC</b>			
<p>When the northbound section of the bridge is widened, the southbound section of the bridge will direct traffic with three lanes, one lane dedicated to the southbound direction and two lanes dedicated to the northbound direction. The lane closures will result in a temporary, short-term impact on local traffic patterns during Project construction. The temporary short-term traffic impacts would occur during peak traffic hours of the day and night.</p>	<p><b>Mitigation Measure XVI-1:</b> The City will notify local residents, businesses, and emergency response providers of any lane closures at least 24 hours in advance of the beginning of construction.</p>	<p>Less than Significant Impact</p>	<p>City of Santa Clarita</p>

## **1.0 INTRODUCTION**

### **1.1 PROJECT OVERVIEW**

This report analyzes the potential environmental effects of implementing the Proposed Project. The City proposes to modify and expand the existing Sierra Highway Bridge. This would include the widening of the northbound bridge deck and replacing the southbound bridge on the Sierra Highway over the Santa Clara River (Bridge No. 53C1777L&R).

The Proposed Project is located in the City of Santa Clarita. It is bounded on the north by Soledad Canyon Road, to the east by California State Route 14, to the south by Via Princessa, and to the west by Whites Canyon Road. Interstate-5 Freeway is located west of the project site. See **Figures 2-1** and **2-2**.

The northbound section of the bridge will be widened from the existing 43 feet to 52 feet without adding additional travel lanes. The 44-foot wide southbound concrete bridge will be replaced with a 52-foot wide concrete bridge. An area of approximately 2.8 acres within the riverbed will be temporarily impacted by construction activities. Construction staging will occur in previously developed and disturbed areas outside the streambed. Equipment will access the streambed from the existing access ramp on the northern boundary of the project site.

Falsework to support the existing southbound bridge will be required. Project construction activities will occur in dry conditions only. However, if water exists in the riverbed during construction, it will be diverted from the construction area by using K-rail, sandbags, and plastic sheeting to capture the upstream flow. Grading and clearing of vegetation will be required outside the riverbed to construct the abutments and wingwalls.

This report is prepared in compliance with CEQA. The purpose of this document is to inform the City of Santa Clarita (City), other public agencies, adjacent property owners, and the general public of the potential environmental effects resulting from the implementation of the Proposed Project. This document alone does not determine whether the Proposed Project will be approved. Rather, it is a disclosure document aimed at equally informing all concerned parties and fostering informed discussion and decision-making regarding all aspects of the Proposed Project.

### **1.2 ENVIRONMENTAL CLEARANCE REQUIREMENTS**

The Proposed Project requires environmental review under CEQA. For the Proposed Project to obtain an environmental clearance in the form of a Mitigated Negative Declaration (MND) in compliance with CEQA, any potentially significant adverse effects must be mitigated to a level of insignificance by mitigation measures included in the project MND.

### **1.3 ACTIONS AND AGENCIES INVOLVED**

Section 15063(a) of the State CEQA Guidelines requires the Lead Agency to prepare an Initial Study (IS) to determine if the Proposed Project may have a significant effect on the environment. The IS is prepared for consideration by the City acting as the Lead Agency in accordance with CEQA. The IS provides the basis for the declaration that, with the implementation of mitigation measures as prescribed herein, the Proposed Project will not have a significant adverse effect on the environment.

The final environmental document must be adopted by the City as to its compliance with the requirements of CEQA before taking any action on the Proposed Project. The City will consider the information contained in this environmental document in making a decision to approve or deny the Proposed Project. The analysis in this document is intended to provide environmental review for the whole of the Proposed Project, including the modification of the existing bridge, and the demolition and construction of a new southbound bridge.

## 1.4 PROJECT INFORMATION

**Project Title:** Sierra Highway Bridge over the Santa Clara River Project

**Project Location:** Sierra Highway Bridge (Bridge No. 53C1777L&R) over the Santa Clara River

**Project Sponsor's Name & Address:**

City of Santa Clarita  
23920 Valencia Boulevard  
Santa Clarita, California 91355

**Contact Person:** David Koontz, AICP, Associate Planner

**Lead Agency:** City of Santa Clarita

**General Plan Land Use Designations:**

City of Santa Clarita  
No land use designation for roadways

**Zoning Designations:**

City of Santa Clarita  
No zoning designation for roadways

## 1.5 ORGANIZATION OF INITIAL STUDY

This Initial Study is organized into six sections:

- **1.0 Introduction:** This section provides introductory information, such as the project titles, the project applicant, and the lead agency and contact information for the Proposed Project.
- **2.0 Project Description:** This section provides a detailed description of the environmental setting and the Proposed Project, including project characteristics, surrounding land uses, and conceptual site plans.
- **3.0 Initial Study Checklist:** This section contains the complete CEQA Initial Study Checklist showing the level of impact under each environmental impact category.
- **4.0 Initial Study Evaluation:** This section contains an assessment and discussion of the impacts associated with each subject area associated with the Initial Study Checklist. When the evaluation identifies potential significant effects, mitigation measures are provided to reduce such impacts to less than significant levels.
- **5.0 Persons And Sources Consulted:** This section provides a list of City staff, other governmental agencies, and consultant team members that participated in the preparation of this Initial Study.

- **6.0 References:** This section provides a list of all documents and other sources of information referenced in this Initial Study.

## 2.0 PROJECT DESCRIPTION

### 2.1 INTRODUCTION

The City proposes to widen the northbound bridge deck and replace the southbound bridge of Bridge No. 53C1777L&R, located on Sierra Highway over the Santa Clara River. The Proposed Project will consist of widening the northbound section of the bridge from the existing 43 feet to 52 feet without adding additional travel lanes, and replacing the existing 44-foot wide southbound concrete bridge with a 52-foot wide concrete bridge. An area of approximately 2.8 acres within the riverbed will be temporarily impacted by construction activities.

The purpose of the project is to bring the bridge to the current state standard since the existing bridge is classified as functionally obsolete. Furthermore, the Proposed Project would provide improved vehicular and pedestrian circulation within the project site.

The Proposed Project is located in the City of Santa Clarita. It is bounded on the north by Soledad Canyon Road, on the east by California State Route 14, on the south by Via Princessa, and on the west by Whites Canyon Road. Interstate 5 Freeway is located west of the project site, as shown in **Figures 2-1 and 2-2**.

Construction equipment will need to operate in the riverbed during removal of the southbound bridge. Temporary falsework to support the existing southbound bridge will be required. Project construction activities will occur in dry conditions only. However, if water exists in the riverbed during construction, it will be diverted from the construction area by using K-rail, sandbags, and plastic sheeting or other appropriate method to capture the upstream flow. Grading and clearing of vegetation will be required outside the riverbed to construct the abutments and wingwalls. **Figure 2-3** illustrates the design and cross-section of the Proposed Project. **Figure 2-4** exhibits the impact areas of the Proposed Project.

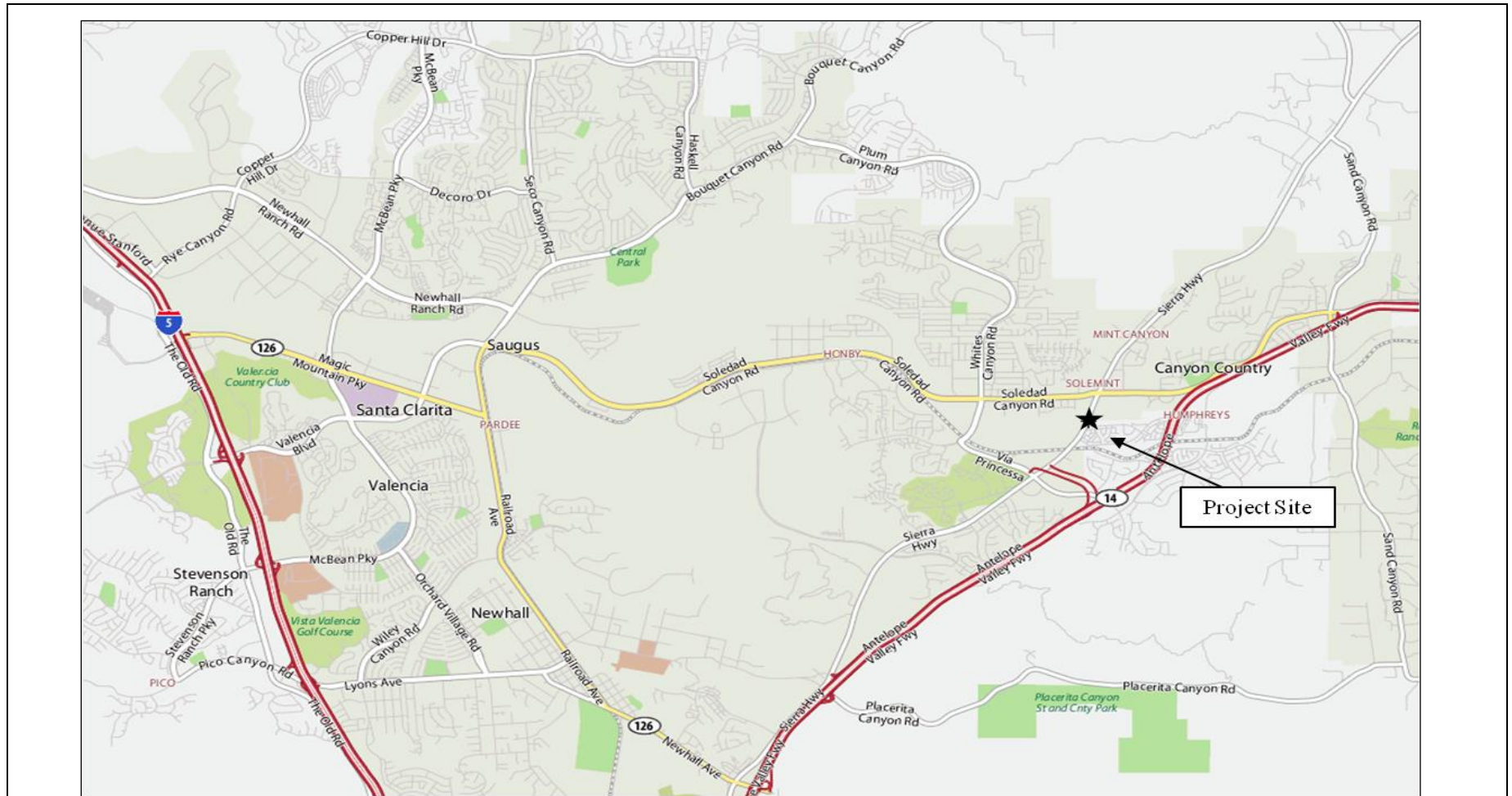
### 2.2 BACKGROUND

The Sierra Highway is a six lane major arterial that travels northeast-southwest. The Sierra Highway Bridge over the Santa Clara River is owned by the County of Los Angeles and maintained by the County. For this project under *CEQA Guidelines*, the City is the lead agency. You can contact either the lead agency or any approving authority with questions or comments regarding this project.


### 2.3 PROJECT LOCATION AND SURROUNDING USES

The Proposed Project is located in the City of Santa Clarita, the fourth largest city in Los Angeles County. The City of Santa Clarita is bounded by unincorporated communities of Los Angeles County, the City of Lancaster and the City of Palmdale to the north and east, San Fernando Valley to the south, and Simi Valley to the west. California State Route 14 (Antelope Valley Freeway) is located to the east, the Interstate 405 and 210 Freeways are located to the south, and Interstate 5 Freeway is located to the west of the Project Site. Locally, the Proposed Project is bounded to the north by Soledad Canyon Road, to the east by the Antelope Valley Freeway, to the south by Via Princessa, and to the west by Whites Canyon Road.

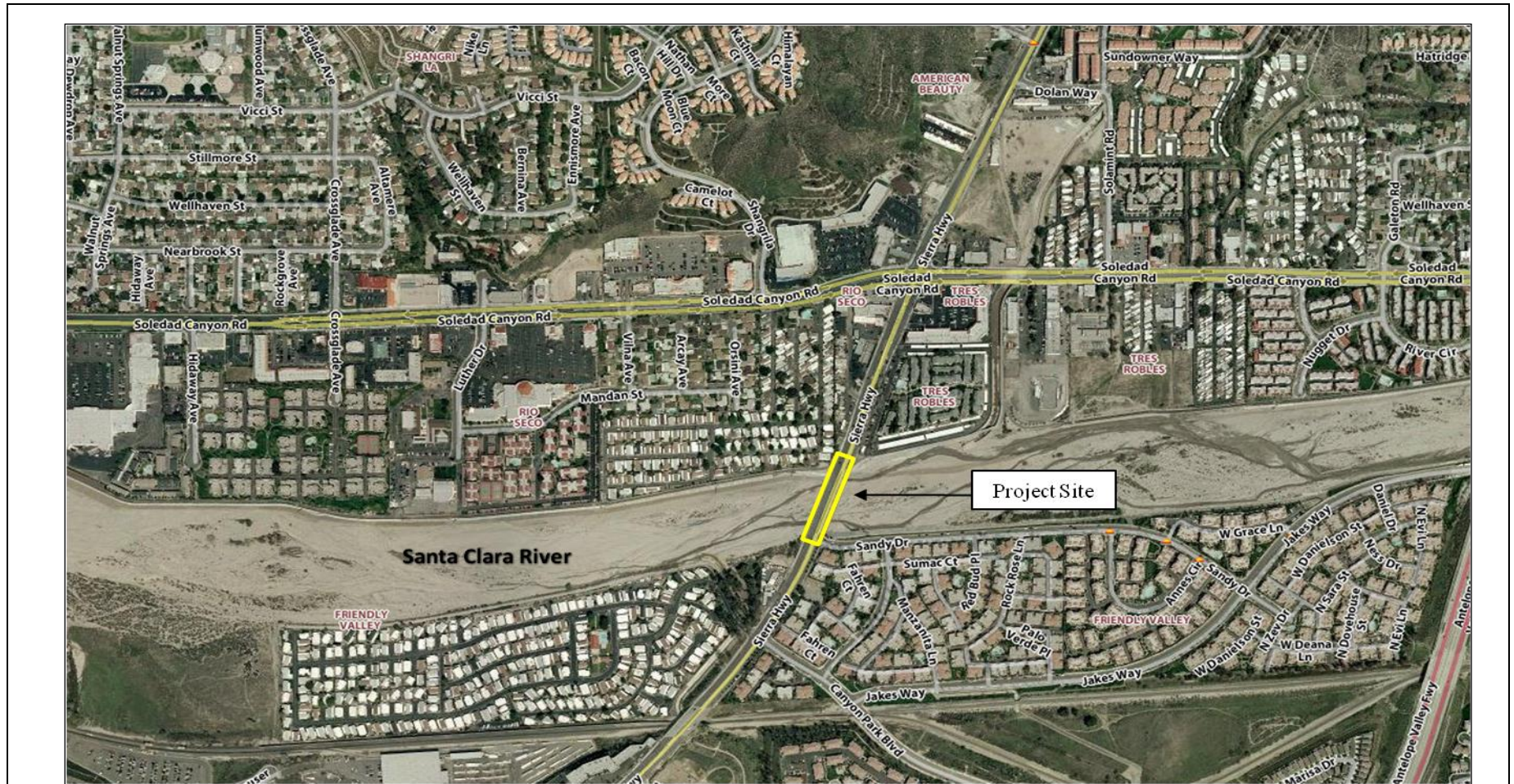





Source: Yahoo Maps, 2011.

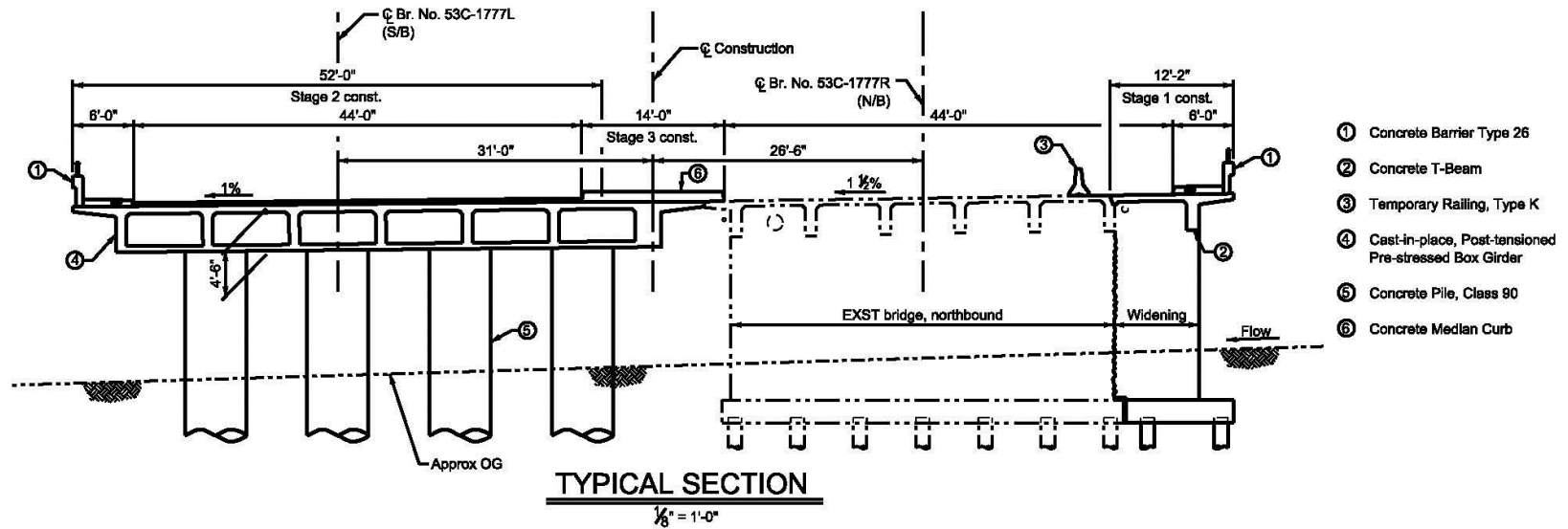
	<p>Not to Scale.</p>	<p><b>Figure 2-1</b> <b>Regional Vicinity Map</b></p>
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Source: Yahoo Maps, 2011.

	<p>Not to Scale.</p>	<p><b>Figure 2-2</b> <b>Local Vicinity Map</b></p>
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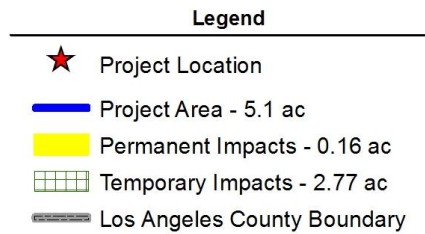
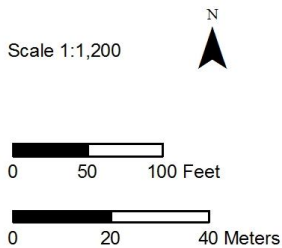






Service Layer Credits: National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC, Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community, Copyright:© 2011 Esri, DeLorme, NAVTEQ, TomTom; City of Santa Clarita, 2013; UltraSystems Environmental, Inc. 2014

January 8, 2014



**Sierra Highway Bridge Project**  
Project Area Impact



**Figure 2-4**  
**Project Area Impact**

The Proposed Project Site is located on the Sierra Highway on Bridge No. 53C1777L&R over the Santa Clara River. Sierra Highway is a six lane major arterial that travels northeast-southwest. It parallels the Antelope Valley Freeway on the west until it veers east to the cities of Palmdale and Lancaster, north of the Project Site.

According to the City of Santa Clarita General Plan and Land Use Map, land uses to the north of the bridge include residential and commercial uses.<sup>1</sup> According to the City of Santa Clarita Zoning Map, the immediate area of the Project Site is bounded by CC (Community Commercial) zoning, RH (Residential High) to the northeast, RM (Residential Moderate) to the south and west, OS (Open Space) to the northwest, and BP (Business Park) to the north.<sup>2</sup> There is no land use designation for the Santa Clara River.

## **2.4 PROJECT CONSTRUCTION SCHEDULE**

For the purposes of this Initial Study, it is assumed that construction will occur over a 15 month period, tentatively starting in the spring of 2015. The construction phases would occur in the following sequence: (1) widen the northbound bridge after moving all traffic to the southbound bridge, with one lane on the southbound bridge dedicated to the southbound direction and two lanes dedicated to the northbound direction; (2) move all traffic onto the widened northbound bridge and reduce the traffic to three lanes, one lane dedicated to the southbound direction and two lanes dedicated to the northbound direction; (3) demolish the southbound bridge and replace it with the new cast-in-place box bridge.

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<sup>1</sup> City of Santa Clarita General Plan Land Use Map (June 26, 1991).

<sup>2</sup> City of Santa Clarita Zoning Map (2007).

### 3.0 ENVIRONMENTAL DETERMINATION

#### 3.1 CEQA APPENDIX G FORM

- |  |  |
|--|--|
| <b>1. Project Title:</b>   | Sierra Highway Over Santa Clara River Project, Bridge No. 53C1777L&R   |
| <b>2. Lead Agency Name and Address:</b>                                  | City of Santa Clarita<br>23920 Valencia Boulevard<br>Santa Clarita, California 91355                         |
| <b>3. Contact Person and Phone Number:</b>                               | David Koontz, AICP<br>(661) 255-4915   |
| <b>4. Project Location:</b>  | Sierra Highway over the Santa Clara River, see Figure 2-2.   |
| <b>5. Project Proponent's Name and Address:</b>                          | City of Santa Clarita<br>23920 Valencia Boulevard<br>Santa Clarita, California 91355                         |
| <b>6. General Plan Designation:</b>                                      | <i>(No General Plan designation for roadways.)</i>   |
| <b>7. Zoning:</b>  | <i>(No Zoning designation for roadways.)</i>   |
| <b>8. Description of Project:</b>  | See Section 2.1  |
| <b>9. Surrounding Land Uses and Setting:</b>                             | See Section 2.3  |
| <b>10. Other Public Agencies Whose Approval and Review Are Required:</b> | <b>USACE</b> - Section 404<br><b>RWQCB</b> - Section 401<br><b>CDFW</b> – 1600 Lake and Streambed Alteration |

#### 3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the Proposed Project, involving at least one impact that is a “Potentially Significant Impact,” as indicated by the Environmental Checklist in 4.0.

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

### 3.3 ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:

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

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*Signature*

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*Date*

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David Koontz

*Printed Name*

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Community Development, City of Santa Clarita

## 4.0 ENVIRONMENTAL CHECKLIST FORM

This section contains the complete CEQA Initial Study Checklist showing the level of impact under each environmental topic area. Below are the four impact categories as defined by CEQA. In each topic area, the appropriate impact category will be determined as it relates to that topic area.

### 4.1 DEFINITION OF IMPACT CATEGORIES

**No Impact:** The designation for those environmental topics where the Proposed Project would have no effect.

**Less Than Significant Impact:** The designation for those environmental topics where a change may occur as a result of the Proposed Project; however, the change would not exceed established impact threshold levels.

**Less Than Significant With Mitigation Incorporated:** The designation assigned to environmental topics for which adverse effects can be reduced to a less than significant level with implementation of specific conditions and measures. The mitigation measures are listed after the discussion of the affected topic area.

**Potentially Significant Impact:** The designation assigned to environmental topics for which adverse effects cannot be reduced to a less than significant level by mitigation measures.



	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**I. AESTHETICS** - 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

***Discussion:***

**a. No Impact.**

The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Project Site is located in a developed urban area with little or no scenic value. As the Proposed Project will be constructed at- and below-grade, the Proposed Project will not obscure any of the City of Santa Clarita designated scenic resources. Therefore, no Project impact on a scenic vista will result.

**b. No Impact.**

The Proposed Project is located on Sierra Highway and is not located on a California State Scenic Highway or designated as a scenic highway on the California Scenic Highway Mapping System.<sup>3</sup> The Project Site is not located in close proximity to any officially designated state scenic highways. Therefore, no Project impact on scenic resources within a state scenic highway will result.

**c. No Impact.**

The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will not construct buildings or other structures other than a bridge. The replacement bridge will be built at the same height as the existing bridge. As components of the Proposed Project will be constructed at or below eye level, the Proposed Project will not substantially degrade the existing visual character or quality of the site and its surroundings.

**d. No Impact.**

The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will not introduce new sources of

<sup>3</sup> California Department of Transportation, 2009. *California Scenic Highway Mapping System*. Internet URL: [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm), accessed April 26, 2011.



light or glare, such as additional street lighting. Therefore, the Proposed Project will not create a new source of substantial light or glare in comparison to existing conditions.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**II. AGRICULTURAL AND FORESTRY RESOURCES** - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>

**Discussion:**

- a. **No Impact.** The Proposed Project is located in the City of Santa Clarita. The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway over the Santa Clara River. Based on the City of Santa Clarita General Plan Land Use Element and the Open Space and Conservation Element, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown in the Farmland Mapping and Monitoring Program of the California Resources Agency has been identified within the Project area. As the proposed use at the Project Site is an existing use, no conversion of farmland to non-agricultural use will occur. Therefore, no Project impact on Prime Farmland, Unique Farmland or Farmland of Statewide Importance will result.
  
- b. **No Impact.** The Project Site is bounded by commercial, residential, and open space uses. No agricultural zones are identified within the Project area. Therefore, no Williamson Act contracts are in place on or adjacent to the Project Site currently exist. Therefore, the Proposed Project will not conflict with zoning for agricultural uses or a Williamson Act contract.

- c. **No Impact.** Based on the City of Santa Clarita General Plan Land Use Element and the City of Santa Clarita Zoning Map, no designated forest land or timberland land uses exist in the Project area. As the proposed use at the Project Site is an existing use, there will be no conversion of forest land to another land use. Therefore, the Project will not conflict with existing zoning for forest land, timberland, or timberland zoned Timberland Production
  
- d. **No Impact.** The Project Site is bounded by commercial, residential, and open space uses. No forest land is located on the Project site. Therefore, the Project will not result in the loss of forest land or conversion of forest land to non-forest use.
  
- e. **No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Project will retain the site's existing use as a bridge. Therefore, the Project will not involve other changes in the existing environment which will result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**III. AIR QUALITY** - Where available, the significance criteria established by the applicable air quality management or 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"/>

**Discussion:**

The project site is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is responsible for preparing a regional Air Quality Management Plan (AQMP) to improve air quality in the SCAB. The AQMP includes a variety of strategies to accommodate growth, to reduce the high levels of pollutants within the region, to meet State and federal ambient air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy.

SCAQMD adopted its *CEQA Air Quality Handbook* (Handbook) to assist other public agencies with the preparation of air quality analyses. The SCAQMD-established thresholds for construction and operation emissions are used to evaluate impacts on regional air quality. The following acronyms for studied air pollutants are used in this section:

- CO: Carbon monoxide
- NO<sub>x</sub>: Nitrogen oxides
- O<sub>3</sub>: Ozone
- PM<sub>10</sub>: Respirable particulate matter up to 10 micrometers in diameter
- PM<sub>2.5</sub>: Respirable particulate matter less than or equal to 2.5 micrometers in diameter
- VOC: Volatile organic compounds

Note that since sulfur dioxide and lead are not of concern for a bridge and drainage construction project, they are not discussed in the air quality analysis. Further, because greenhouse gas (GHG) emissions are of increasing concern, recent changes to the CEQA guidelines require that they be evaluated as a separate topic in the

checklist (See **Section VII, Greenhouse Gas Emissions**). Therefore, GHGs are not discussed in the air quality analysis.

- a. **No Impact.** The most recently approved applicable air quality plan for the project area is the 2012 AQMP, which was designed to meet both federal and State requirements, including achieving ambient air quality standards. The AQMP strategy is based on projections from local general plans and regional growth projections developed by the Southern California Association of Governments (SCAG). A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in the AQMP.

The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge (Bridge No. 53C1777L&R) over the Santa Clara River. Implementation of the Proposed Project will not affect population, housing units, or employment or otherwise be inconsistent with the growth forecasts identified in the AQMP. Therefore, the Proposed Project will be consistent with the 2012 AQMP and no impact would occur with the project’s implementation.

- b. **Less Than Significant Impact.** Air quality impacts are typically divided into two categories, short-term impacts and long-term impacts. Short-term impacts are associated with a project’s construction activities, such as demolition, site grading, excavation, structural construction, paving, and finishing. Long-term impacts are associated with the operational activities of a Proposed Project. **Table III-1, SCAQMD Significance Thresholds**, presents the significance thresholds for criteria air pollutants established by SCAQMD. A project is considered to have a regional air quality impact if emissions from its construction and/or operational activities exceed any of the corresponding SCAQMD significance thresholds.

<b>Table III-1 SCAQMD Significance Thresholds</b>					
<b>Emission Rates</b>	<b>Pollutant Emission Threshold (lbs/day)</b>				
	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Construction	75	100	550	150	55
Operation	55	55	550	150	55

Source: SCAQMD. *CEQA Air Quality Handbook*. 1993. (Revised December 2007).

*Construction (Short-Term Impacts)*

Construction of the Proposed Project will generate temporary, short-term emissions of various air pollutants. Construction emissions can be distinguished as either on-site or off-site. On-site air pollutant emissions during construction will consist principally of exhaust emissions from heavy-duty construction equipment, and fugitive particulate matter from earthwork and material handling operations. Approximately 2.8 acres within the Santa Clara River riverbed will temporarily be impacted during construction activities. Off-site emissions will result from truck delivery of construction materials and hauling of construction debris, and workers commuting to and from the project site. Pollutant emissions will vary from day to day depending on the intensity and type of construction activity.

The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge (Bridge No. 53C1777L&R) over the Santa Clara River.

A preliminary construction time schedule and a partial list of the types of equipment needed for various activities were provided by the County of Los Angeles Department of Public Works.<sup>4,5</sup> From this and other information on bridge construction, UltraSystems developed a schedule for the deployment of each type of equipment.

On-site and off-site emissions of criteria pollutants from construction activities were estimated using the construction module of URBEMIS 2007. Equipment exhaust emissions were determined using the URBEMIS 2007 default values for horsepower and load factors. Estimated emissions from the Proposed Project construction are shown in **Table III-2, Maximum Project Construction Emissions**, and are compared with the SCAQMD thresholds of significance. Note that the emission estimates do not take into account emission reductions from implementing typical fugitive dust control measures that will be required to comply with SCAQMD Rule 403. Further, the emission estimates represent, for each pollutant, the combination of equipment types that result in the highest combined daily emissions. These worst-case predictions will not be continuous, nor will they be typical of emission levels throughout the construction period.

<b>Table III-2 Maximum Project Construction Emissions</b>					
<b>Construction Activity</b>	<b>Maximum Emission (lbs/day)</b>				
	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Maximum Cumulative Emissions	3.74	28.15	22.20	15.61	3.98
Construction Activities	Rebuild Southern Part of SB Bridge & Pile Driving for Northern Part of SB Bridge	Pile Driving & Excavation of Footings for Falsework for Southern Part of SB Bridge	Pile Driving & Excavation of Footings for Falsework for Southern Part of SB Bridge	Clear Vegetation & Grading for Abutment and Wingwall	Clear Vegetation & Grading for Abutment and Wingwall
<i>SCAQMD Significance Thresholds</i>	75	100	550	150	55
<b>Significant (Yes or No)</b>	No	No	No	No	No

Source: Calculated by UltraSystems with URBEMIS 2007 (Version 9.2.4).

<sup>4</sup> Email from Albert Anidi, County of Los Angeles Department of Public Works, Programs Development Division, Alhambra, California to Kendall Jue, UltraSystems Environmental, Incorporated, Irvine, California (May 18, 2011).  
<sup>5</sup> Memorandum from Hsiao Hsiung, County of Los Angeles Department of Public Works, Design Division to Albert Anidi, County of Los Angeles Department of Public Works (October 27, 2009).

As shown in Table III-2, the unmitigated maximum daily emissions will be below the SCAQMD significance thresholds for all criteria pollutants. Therefore, air quality impacts associated with construction of the Proposed Project will be temporary and less than significant.

*Operation (Long-Term Impacts)*

Operation of the Proposed Project will not generate new stationary or mobile sources of emissions. Therefore, no long-term air quality impacts are anticipated.

- c. **Less Than Significant Impact.** The SCAB is currently in non-attainment for both the California and federal ambient air quality standards for O<sub>3</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>. During construction, the Proposed Project's emissions of NO<sub>x</sub> and ROG (which are O<sub>3</sub> precursors), PM<sub>10</sub> and PM<sub>2.5</sub> will not exceed SCAQMD thresholds. Given the intermittent and short-term nature of construction emissions, the impacts would be less than significant.

The Proposed Project would not generate any new sources of criteria pollutant emissions. Further, the Proposed Project would not be population and/or job growth inducing, and therefore, would be consistent with the AQMP. Therefore, a cumulatively considerable air quality impact would not occur.

- d. **Less Than Significant Impact.** Sensitive receptors are persons who would be more susceptible to air pollution than the general population, such as children, athletes, the elderly, and the chronically ill. Examples of land uses where substantial numbers of sensitive receptors are often found are schools, daycare centers, parks, recreational areas, medical facilities, nursing homes, and convalescent care facilities. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants.

*Construction (Short-Term Impacts)*

The SCAQMD has published guidance on determining the localized significance of construction activities.<sup>6</sup> **Table III-3, SCAQMD Ambient Air Quality Significance Thresholds for Construction** shows the significance thresholds, which are expressed as short-term ambient concentrations. SCAQMD has prepared lookup tables that use the concentration-based thresholds to back-calculate emission rates from various sized projects, to indicate significant emission rates presumed to satisfy the ambient thresholds. These lookup tables are applicable for construction projects that affect less than 5 acres on any given day. Only on-site emissions are included in the analysis.

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<sup>6</sup> Chico, T., et al., Final Localized Significance Threshold Methodology. Diamond Bar, California: South Coast Air Quality Management District. June 2003.

Pollutant	Averaging Time	Threshold Concentration
Nitrogen Dioxide (NO <sub>2</sub> )	1 hour	0.18 ppm
Respirable Particulate Matter (PM <sub>10</sub> )	24 hours	10.4 µg/m <sup>3</sup>
Fine Particulate Matter (PM <sub>2.5</sub> )	24 hours	10.4 µg/m <sup>3</sup>
Carbon Monoxide (CO)	1 hour	20 ppm
	24 hours	9.0 ppm

Source: “SCAQMD Air Quality Significance Thresholds.” 2009. Diamond Bar, CA: SCAQMD, [www.aqmd.gov/ceqa/handbook/signthres.pdf](http://www.aqmd.gov/ceqa/handbook/signthres.pdf). Accessed August 19, 2009.

Project emissions will be less than the thresholds in the lookup tables, for all pollutants. Therefore the impacts to sensitive receptors in the project area will be **less than significant**.

*Operation (Long-Term Impacts)*

Operation of the Proposed Project will not increase criteria pollutant or hazardous air pollutant emissions. Therefore, no operational impacts will occur.

- e. **Less Than Significant Impact.** Construction of the Proposed Project will potentially generate odors due to operation of construction equipment (diesel exhaust). These odors, which will be temporary, will occur during daytime hours only and be isolated to the immediate vicinity of the construction activities. They will not affect a substantial number of people and their impact will be **less than significant**.

Operation of the Proposed Project will not introduce significant odor generating sources, such as a wastewater treatment facility, landfill, or other industrial land uses that generate objectionable odors. Therefore, no impact will occur.



	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

The findings from the Final Biological Assessment Report prepared by UltraSystems for the Sierra Highway Bridge Project prepared in November 2010 is provided in the following IS/MND analysis. The Biological Assessment describes the occurrence and potential occurrence of special-status biological resources within the Sierra Highway Bridge over the Santa Clara River Project area. A site visit by UltraSystems Environmental Inc. on December 13, 2013 confirmed that biological resource conditions had not changed since 2010.

**a. & b. Less than Significant with Mitigation Incorporated.** The Proposed Project would widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. Construction activities would occur within existing right-of-ways. Furthermore, the Project would be conducted in phases to maintain through traffic at all times during construction. An area



of approximately 2.8 acres within the riverbed will be temporarily impacted by construction activities. Construction equipment will operate in the riverbed for the removal of the southbound bridge and to set up temporary falsework to support the existing southbound bridge. Construction will occur during dry conditions when little or no water is present in the streambed. If water is present during construction, water will be diverted from the construction area by using K-rail, sandbags, and plastic sheeting to capture the upstream flow. In addition, grading and clearing of vegetation would be required outside the riverbed to construct the abutments and wingwalls.

The portion of streambed located within the Project area is free of dense vegetation through natural flooding events. No mature riparian vegetation was present within the streambed immediately upstream or downstream of the Project area. The west side of the bridge contained moderate levels of weed species, including invasive *Arundo donax*. The Santa Clara River streambed located within the Project area is unlined and has a soft bottom. According to the Biological Assessment, the Project Site is not located within federally designated critical habitat for any special-status species. The nearest critical habitat is located approximately 1.5 miles south (California Gnatcatcher) and 3 miles north (Spreading Navarretia) of the Project in the Santa Clara River watershed. Critical habitat for the Arroyo Toad is approximately 5.5 miles east and 7.0 miles west of the Project.

However, special-status species and special-status vegetation communities have been identified within the Project area.

#### *Special-status Species*

Special-status plant and wildlife species include Endangered, Threatened, Proposed Threatened, and Rare species as listed or published by the U.S Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), California Species of Special Concern, California Native Plant Society (CNPS)-listed plants, and locally listed species. A special-status species is considered to potentially occur in the project area if its known geographic range falls within the project vicinity and/or adjacent parcels, and if the general habitat requirements or environmental conditions required for the species are present within the project area.

Five special-status species potentially occurring onsite have been identified and are discussed further. One special-status plant, Slender-horned Spineflower (*Dodecahema leptoceras*), and four special-status animals, Burrowing Owl (*Athene cunicularia*), Coast Horned Lizard (*Phrynosoma coronatum blainvillii*), Cooper's Hawk (*Accipiter cooperii*), and Western Spadefoot Toad (*Spea hammondi*) are identified as having a moderate to high potential to occur onsite.

The following five special-status species are reported in the California Natural Diversity Database (CNDDDB) to occur within the project vicinity.

#### **Slender-horned Spineflower (*Dodecahema leptoceras*)**

Regulatory Status: The Slender-horned Spineflower is a state and federally endangered species.

Habitat, Natural History, and Distribution: The Slender-horned Spineflower is an annual herb found amongst the Scalebroom and Brittlebush in washes and flood deposited terraces at elevations of 200-759 meters above mean sea level. This species blooms from April to June.

Occurrence Potential: The County is within the native range for this species. Slender-horned Spineflower has a moderate potential to occur within the Scalebroom series in the project study area (PSA). Recent (1993) occurrences are documented within the Santa Clara River five miles from the

project site and suitable habitat is present within the project area. No individual of this species was observed during the October 2010 survey.

### **Burrowing Owl (*Athene cunicularia*)**

Regulatory Status: The Burrowing Owl is a CDFG Species of Special Concern. It is not a State or Federal listed species.

Habitat, Natural History, and Distribution: The Burrowing Owls can be resident or migratory inhabitants of open, dry grassland and desert habitats and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. It is also often found along irrigation channels in agricultural areas. It feeds primarily on insects as well as small mammals, reptiles, birds and carrion. This species uses abandoned ground squirrel burrows or other natural or man-made cavities for roosting and nesting cover.

Occurrence Potential: The County is within the native range for this species. Burrowing Owls have a moderate potential to occur within the dry dirt slope portions of the PSA. Recent (2005) occurrences are documented within the Santa Clara River one mile from the project site and suitable habitat is present within the project area. No individual of this species was observed during the October 2010 survey.

Suitable nesting and foraging habitat for Burrowing Owl is present within the project area. Although this species can withstand some urban noises, the temporary noises from project equipment, such as backhoes, drills, and trucks, may indirectly affect the potential nesting, feeding, or other natural behaviors of individuals present in adjacent parts of the streambed, and upstream and downstream in the channel. This species was not identified during the site visit and is currently not known to occur within the project area. Direct impacts are not expected.

To minimize potential temporary, indirect impacts on Burrowing Owl, **Mitigation Measure IV-1** should be implemented. If evidence of Burrowing Owls is observed during the pre-construction survey, then **Mitigation Measure IV-2** will be implemented as described below, in addition to Mitigation Measure IV-1.

### **Coast Horned Lizard (*Phrynosoma coronatum blainvillii*)**

Regulatory Status: The Coast Horned Lizard (San Diego) is a California Species of Special Concern. It is not a State or Federally Listed Species.

Habitat, Natural History, and Distribution: San Diego Coast Horned Lizards occur in a variety of habitat types, including Coastal Sage Scrub, Annual Grassland, Chaparral, Oak Woodland, Riparian Woodland, and Coniferous Forest, but are more common in shrub-dominated communities with a limited overstory (CDFG 1994, Stephenson and Calcarone 1999). Within these habitats, important elements include loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited over-story for basking, and low, but relatively dense, shrubs for refuge. In the foothill and mountain areas that are covered with dense brush or other vegetation, San Diego Coast horned lizards are largely restricted to areas with pockets of open microhabitat, such as fire breaks and roads (CDFG 1994).

Occurrence Potential: This species has a moderate potential to occur within the PSA. Recent (2007) occurrences have been documented both upstream and downstream of the project site in the Santa Clara River. No individual of this species was observed during the October 2010 survey.

Impacts on special-status herpetological (amphibians and reptiles) species may occur because ground-disturbing construction activities are scheduled to occur within portions of the streambed. The Project area may serve as suitable habitat for the Coast Horned Lizard and the Western Spadefoot. Flow conditions in the streambed will fluctuate throughout the construction period. Habitat suitability for the Western Spadefoot may fluctuate within the project area, particularly when water (standing or flowing) is present and impacts on these species may occur.

To minimize potential impacts on special-status wildlife species, **Mitigation Measure IV-3** should be implemented.

#### **Cooper's Hawk (*Accipiter cooperii*)**

Regulatory Status: Cooper's Hawk is a California Species of Special Concern. It is not a State or Federally listed species.

Habitat, Natural History, and Distribution: Cooper's Hawks breed in dense oak woodlands, riparian corridors and coniferous forests. They prefer a dense canopy of mature trees for nest sites. Cooper's Hawks hunt along habitat edges, in open woodlands, and in riparian corridors for medium-sized birds (pigeons) and small mammals (rodents). They can also occur in urban areas where tall mature ornamentals and riparian woodland corridors remain.

Occurrence Potential: This species has a moderate potential for occurrence within the project PSA. The Project is within seven miles of recorded occurrences of this species. Suitable foraging habitat is present within the streambed. No individual of this species was observed during the October 2010 survey.

Suitable roosting and foraging habitat for Cooper's Hawk is present within the PSA and the adjacent ornamental trees. Although this species can withstand some urban noises, the temporary noises from project equipment, such as backhoes, drills, and trucks, may indirectly affect the potential nesting, feeding, or other natural behaviors of individuals present in adjacent parts of the streambed, and upstream and downstream in the channel. This species was not identified during the site visit and is currently not known to occur within the PSA. Direct impacts are not expected.

To minimize potential temporary, indirect impacts on Cooper's Hawk, **Mitigation Measure IV-1** should be implemented.

#### **Western Spadefoot Toad (*Spea hammondi*)**

Regulatory Status: The Western Spadefoot is a California Species of Special Concern. It is not a State or Federally Listed Species.

Habitat, Natural History, and Distribution: This species of toad prefers sandy or gravelly soils and can occur in a variety of habitats where ponded water may persist for extended periods. Habitats include open woodlands, grasslands, chaparral, sandy washes, alluvial fans, alkali flats, and mountain foothills. Hard spades on the hind feet of individual toads allow them to burrow underground during periods of hot and dry conditions. This species spends much of its life underground during the day and on the ground surface at night when it feeds on invertebrates. Western Spadefoot is almost completely terrestrial, entering water only to breed. Breeding occurs primarily January through May, following heavy rains. Nevertheless, the species can be opportunistic whenever conditions for breeding are favorable. Tadpoles transform within 3 to 11 weeks. This species is endemic to California and Baja

California from 0 to 1,200 meters (3,940 feet). It is threatened by habitat loss and invasive predator species, including bullfrogs and crayfish.

Occurrence Potential: This species has a moderate potential of occurrence within the PSA. Recent (2006) occurrences have been documented in the Santa Clara River, less than three miles upstream of the project site. No individual of this species was observed during the October 2010 survey.

#### *Jurisdictional Areas*

Both the USACE and the CDFG have jurisdiction over streams, watercourses, and wetlands. Filling or alteration of these jurisdictional areas normally requires permits from USACE (404 Permit) and CDFG (Streambed Alteration Agreement). Additionally, activities that require a federal license or permit are also subject to certification by the RWQCB under Section 401 of the Clean Water Act.

To address potential impacts on jurisdictional areas, **Mitigation Measure IV-4** should be implemented.

#### *Special-status Vegetation Communities*

Special-status plant communities are natural communities (habitat) that support concentrations of special-status plant and wildlife species, are of relatively limited distribution, or are of particular value to wildlife. These communities are considered rare and important by the California Department of Fish and Game (CDFG) and are, therefore, of high priority for inventory in the California Natural Diversity Database (CNDDDB). Special-status plant communities are not afforded legal protection unless they support protected species, except for wetland and riparian habitats, which cannot be dredged or filled without authorization from the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB) and CDFG.

As identified in the Biological Assessment, vegetation communities found on-site include pioneer Scalebroom Series also known as pioneer Riversidian Alluvial Fan Sage Scrub (pioneer RAFSS), Fourwing Saltbush Series, Disturbed Narrowleaf Willow Series, Developed Lands/Ornamental Landscaping, Un-vegetated Streambed, Non-Native Vegetation (*Arundo* and *Eucalyptus*) and Open Water. The only sensitive vegetation community within the project study area is RAFSS.

Approximately 0.06 acre of Disturbed Narrowleaf Willow Series is located within the Project area. This habitat is not classified as a “special-status” vegetation community because it is considered jurisdictional per CDFG and is considered under **Mitigation Measure IV-4**.

Approximately 3.28 acres of Developed Lands/Ornamental Landscaping are within the Project area. This is a special-status jurisdictional area and is considered under **Mitigation Measure IV-4**.

Of the identified vegetation communities, the Scalebroom Series is a special-status plant community that occurs within and immediately adjacent to the project site. Approximately, 1.66 acres of RASS is located within the Project area.

#### Riversidian Alluvial Fan Sage Scrub (RAFSS)

All remaining significant expanses of RAFSS habitats now occur only in San Bernardino County, specifically on the Etiwanda Fan, Lytle Creek, Cajon Creek and the Santa Ana River. The climatic features of RAFSS are similar to those for coastal sage scrub, but differ in the frequency and intensity of surface flooding that occurs within the habitat. The soil is a complex, unsorted structure of alluvium composed of

boulders, rocks and sands. The vegetation is less dense than that of coastal sage scrub when it occurs in river channels where it is subject to frequent flooding. The primary indicator plant for RAFSS is Scalebroom (*Lepidospartum squamatum*). RAFSS communities have been severely altered by flood control activities that circumvent the periodic flooding necessary to maintain the habitat, leading to the gradual type conversion of this unique community type. The State of California considers Riversidian Alluvial Fan Sage Scrub to be a threatened and rare natural community (CDFG 2003).

The RAFSS plant community occurs in four stages, including pioneer, intermediate, mature and disturbed. One of these stages occurs in the project study area:

#### Pioneer RAFSS

This age class of RAFSS consists of the youngest perennials with low to moderate diversity of plant species and very low vegetation cover (10%).

Pioneer RAFSS is present within the impact area for the Proposed Project. The Pioneer RAFSS habitat occurs within the center of the Santa Clara River to the east and the west adjacent to the project site. This area is flanked by Un-vegetated Streambed. The San Fernando Valley Spine Flower mentioned in the special-status species section of this document has moderate potential to occur in this Pioneer RAFSS portion. This is a sensitive vegetation community per CDFG and is considered under **Mitigation Measure IV-5**.

Implementation of the recommended mitigation measures will reduce Project impacts to habitat modifications on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS within the Project area. Therefore impacts would be less than significant with mitigation measures.

#### Mitigation Measures:

##### **Mitigation Measure IV-1 - Pre-Construction Survey for Nesting Birds**

To avoid impacts on nesting birds, vegetation clearing and construction activities should take place between September 1<sup>st</sup> and February 14<sup>th</sup>, to avoid the nesting season of State and federally protected migratory birds. However, if construction occurs between February 15<sup>th</sup> and August 31<sup>st</sup>, the following should be implemented:

- A pre-construction survey (within three days before work in the project areas) will be conducted by a qualified biologist to determine the presence or absence of active nests within, or adjacent to, the project sites. Project construction activities in staging areas should only occur following surveys by a qualified biologist.
- If nesting birds are found, continuing construction will comply with all applicable state and federal statutes and the permit requirements from regulatory agencies.

##### **Mitigation Measure IV-2: Special-status Bird Species (Burrowing Owl)**

A focused survey is recommended to determine if Burrowing Owls are present on-site. Spring/nesting season surveys should be conducted during the peak of the breeding season, between April 15 and July 15. Winter season surveys should be conducted between December 1 and January 31. Surveys should be conducted according to CDFG and Burrowing Owl Survey Protocol and Mitigation Guidelines (California



Burrowing Owl Consortium, 1993) to determine if Burrowing Owls are present on-site. The following general methods should be followed:

- Four site visits consisting of morning and afternoon surveys should be conducted by a qualified biologist familiar with Burrowing Owl habitat characteristics, burrow identification and signs;
- The project area shall be covered by a 100% pedestrian survey, and observers shall record all signs of owls and burrows following an initial habitat assessment;
- Surveys shall not be conducted during inclement weather;
- Locations of burrows or burrow complexes shall be documented and mapped; and
- The results of the focused burrowing owl survey will be valid for one year from date of survey.

If Burrowing Owls are nesting on-site, the recommendations in Mitigation Measure IV-1 for nesting birds also apply to nesting Burrowing Owls. In addition, the California Department of Fish and Game should be consulted to determine mitigation measures specific to Burrowing Owls. These could include installation of artificial burrows, passive relocation, sheltering in place, and providing suitable habitat in substitution for habitat being removed by this Project.

### **Mitigation Measure IV-3: Pre-Construction Clearance Surveys for Herpetological Species**

A Project Biologist shall conduct pre-construction surveys within areas of suitable habitat for the Western Spadefoot and Coast Horned Lizard three days before the commencement of construction activities. The biologist will also monitor any vegetation and/or tree removal and construction activities within the project area to help the construction crew to avoid or reduce impacts. Designated special-status habitat areas and non-approved work areas shall be conspicuously marked to indicate where no construction activities shall be permitted to occur without approval from the lead jurisdictional agencies. Further consultation with agencies shall occur if either of these species is observed to be nesting or foraging on-site during construction.

To reduce potential impacts on herpetological species to less-than-significant levels, construction activities within the streambed will occur only in dry conditions. Weather forecasts shall be monitored for possible storm events. Construction material, equipment and vehicles shall be removed from the channel before flow events or anticipated storms. No equipment shall be operated in water flows or in ponded areas within the channel. Pre-construction monitoring shall occur after each flooding or precipitation event. This may result in re-staging of construction equipment because of changes in pooling, saturated soils, and meandering flows. Construction within the channel may resume once flows have receded, moisture content of the soils has stabilized, and the biological monitor has surveyed the area for aquatic species.

Further consultation with agencies will be necessary if special-status herpetological species are observed on-site during construction.

### **Mitigation Measure IV-4: Jurisdictional Areas**

The following permits will be required to complete this Project:

Regional Water Quality Control Board. The Los Angeles RWQCB and its sub-regional offices regulate most projects. The State Water Resources Control Board (State Water Board) directly regulates multi-regional projects and supports and coordinates the Program statewide. A written application for Clean Water Act Section 401 Water Quality Certification will be prepared by the project applicant, and submitted to the Regional Water Quality Control Board along with a processing fee.

United States Army Corps of Engineers. USACE regulates the filling of wetlands, streams, rivers and other water bodies under Section 404 of the Clean Water Act. USACE issues permits of various kinds for the discharge of dredged and fill material into waters of the United States. It is illegal to place fill into waters of the U.S. without a USACE permit. Impacts on jurisdictional streambeds, channels or wetlands will require a Section 404 permit. An application for a Section 404 permit will be prepared by the project applicant to allow fill or dredged material to be placed in channels or wetlands on the project parcels. Construction activity within project channels or basins may require bank protections, such as gabions and riprap.

California Department of Fish and Wildlife. CDFW regulates diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any stream that supports fish or wildlife resources. Section 1600 requires any state or local governmental agency or public utility to notify CDFW prior to beginning a construction project that will:

- Divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake;
- Use materials from a streambed; or
- Result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake.

A California Fish and Game Code Section 1600 Streambed Alteration Notification shall be prepared in accordance with CDFW standards and submitted to the South Coast Regional CDFW office for review and approval. The Streambed Alteration Notification will include, at a minimum, a detailed description of the proposed project, including grading plans, and a detailed description of the jurisdictional areas to be affected by the proposed project. It is illegal to alter the bed or bank of a stream or lake or their natural water flow without a CDFW Streambed Alteration Agreement.

#### **Mitigation Measure IV-5: Sensitive Habitats**

If impacts on RAFSS vegetation cannot be avoided within the approved project area, impacts should be minimized to the extent practicable. A biological monitor shall assist construction crews with avoidance of sensitive vegetation to reduce impacts to less-than-significant levels. Sensitive habitat areas and non-approved work areas shall be conspicuously marked as “out-of-limits.” Equipment access and maneuvering shall occur in existing non-vegetated areas where possible. No access or construction activities shall be permitted to occur outside the approved work area without supervision by the biological monitor.

Following construction, temporarily affected areas shall be returned to pre-construction contours and the project area shall be free of construction equipment, trash, debris, and deleterious materials. The sensitive vegetation will be allowed to naturally re-establish itself, unless otherwise directed by CDFW or other cooperating agency.

- c. **Less Than Significant Impact With Mitigation Incorporated.** The Project Site is located above the Santa Clara River streambed. According to the City of Santa Clarita General Plan-Open Space and Conservation Element, the Project Site is not located within close proximity to federally protected wetlands. Nonetheless, both the USACE and the CDFW have jurisdiction over streams, watercourses, and wetlands. Filling or alteration of these jurisdictional areas normally requires permits from USACE (404 Permit) and CDFW (Streambed Alteration Agreement). Additionally, activities that require a federal license or permit are also subject to certification by the RWQCB under Section 401 of the Clean Water Act. To address potential impacts on jurisdictional areas, **Mitigation Measure IV-4**, provided above should be implemented.

Therefore, with implementation of **Mitigation Measure IV-4** impacts would be reduced to less than significant levels.

- d. **Less Than Significant Impact.** The Proposed Project would widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. An area of approximately 2.8 acres within the riverbed will be temporarily impacted by construction activities.

The Migratory Bird Treaty Act (MBTA) protects the majority of migratory birds breeding in the U.S., regardless of their official listing status. The provisions of this international act govern the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The law applies to the removal of nests occupied by migratory birds during the breeding season. It is specifically a violation of the MBTA to directly kill or destroy an occupied nest of any bird species covered by the MBTA.

The California Fish and Game Code (Section 3503) protects the nest and eggs of all non-game birds. Under this law, it is unlawful to take, possess, or destroy any such birds or to take, possess, or destroy the nest or eggs of any such birds. The Code (Section 86) defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

Several of the birds observed on-site, including Common Raven (*Corvus corax*) and Cliff Swallow (*Petrochelidon pyrrhonota*) are protected under the MBTA and California Fish and Game Code Section 3503. The existing stands of vegetation within the project study area have a high potential for use by nesting birds during the breeding season (February 15 to August 31). Ground-nesting birds, such as Killdeer (*Charadrius vociferus*), may nest on-site within the large non-vegetated areas within the project area.

Project implementation and construction-related activities including, but not limited to, materials lay-down and equipment noise, may result in the disturbance of nesting MBTA-protected special-status species that could occur within the project area. Construction activities could affect raptors and other birds roosting or nesting in vegetation or bridge structures in, or adjacent to, work areas. Trimming or removal of vegetation could destroy or disturb active nests. Equipment noise, vibration, lighting, and other human-related disturbance could disrupt normal activities of birds. To prevent impacts on nesting birds protected under the MBTA and California Fish and Game Code, **Mitigation Measure IV-1**, provided above, should be implemented. With implementation of **Mitigation Measure IV-1**, impacts to migratory fish or wildlife species or migratory wildlife corridors would be reduced to less than significant impacts.

- e. **No Impact.** According to the City of Santa Clarita General Plan, no local policies or ordinances protecting biological resources such as trees or birds currently exist within the City. Nonetheless, **Mitigation Measure IV-1** through **Mitigation Measure IV-5** should be incorporated to reduce any impacts associated with any species found within the Project area. Therefore, the Proposed Project would not conflict with any local policies or ordinances protecting biological resources.
- f. **No Impacts.** The Proposed Project would widen the existing Sierra Highway Bridge over the Santa Clara River. The Project Site is not located within any applicable habitat conservation plan or natural communities conservation plan. As discussed in Section X, Land Use and Planning, of this Initial Study/MND, the City of Santa Clarita General Plan does not identify the Project Site within an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan.



However, Significant Ecological Areas (SEA) have been identified by the City of Santa Clarita. SEAs are ecologically fragile or important land and water areas that are valuable as plant or animal communities. The Santa Clara River, the Santa Susana Mountains, San Francisquito Canyon, Lyon Canyon, and Valley Oaks Savannah are identified SEAs within the Santa Clarita Valley. The Santa Clara River is the only SEA located within City boundaries. The Santa Clara River is primarily designated as a SEA because of the threat of loss of suitable habitat for the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), a federally and state-listed endangered species. However, this species was not identified within our Project site, as discussed above in Section IV.a. The Project Site is not within an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impacts will occur.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<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 a unique 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

**Discussion:**

The following discussion is based on the Sierra Highway Bridge over the Santa Clara River Cultural Resources Letter Report prepared by UltraSystems.

**a. No Impact.** A records search was conducted to determine if cultural resources were located within the Project area. The records search include evaluation of historic maps, the National Register of Historic Places, the Historic Resources Inventory—City of Los Angeles, and the California State Historical Resources Inventory, the California Historic Bridges Inventory (2000), and the Caltrans Statewide Historic Bridges Inventory Update of 2005. According to the record search, 24 cultural resource surveys were completed within a one-mile radius of the Project area. However, none of these studies involved the Sierra Highway Bridge over the Santa Clara River, although two did directly cover a portion of the current project site: LA-1466, a lineal transmission line survey that ran parallel to Sierra Highway and crossed the road directly north of the bridge; and LA-10560, a survey of the upper Santa Clara River’s bottom which included the land below the southern half of the bridge’s footprint. Neither report indicated the presence of cultural resources, prehistoric or historic, in the vicinity of the current project site. The other reports had negative findings.

Furthermore, according to the Caltrans Structure Maintenance & Investigations’ *Historical Significance – Local Agency Bridges* database (updated January 2011) Bridge No. 53C1777L and 53C1777R, located within Caltrans District 7, were built in 1938 and 1968, respectively.<sup>7</sup> The bridges are not eligible for the National Register of Historic Places (NRHP).

<sup>7</sup> Caltrans. Structure Maintenance & Investigations, *Historical Significance – Local Agency Bridges, January 2011*, Internet URL: [http://www.dot.ca.gov/hq/structur/strmaint/hs\\_local.pdf](http://www.dot.ca.gov/hq/structur/strmaint/hs_local.pdf).

The Proposed Project would widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. According to the NRHP, there are no potentially eligible historic properties within or adjacent to the construction area.<sup>8</sup> No substantial adverse change in the significance of a historical resource would result.

- b. No Impact.** One archeological resource was recorded within a one-mile radius of the project area. The prehistoric site CA-LAN-87, on the north bank of the Santa Clara River, was first recorded by S.L. Peck in 1945, reporting that burials had been seen here during construction work in the 1930s, and that metates and debitage could still be seen there. When re-examined in 1979, the site was still recognizable, consisting of “a fairly extensive midden” with “surface distribution of artifacts is restricted primarily to the southern portion of the originally defined site” due to grading of the north portion (L. Tartaglia & R. Wlorski 1979). They observed a core scraper and three flakes on the surface. LAN-87 is situated 0.45 mile (0.7 kilometer) to the northwest of the Sierra Highway Bridge. Nonetheless, according to the cultural resources filed at the SCCIC, no archeological resources have been previously recorded within the Project area. The Proposed Project will not result in a significant impact to archeological resources and no impacts will occur.
- c. No Impact.** No paleontological resource or site or unique geological feature has been identified within the Project area. No Project impacts will occur.
- d. No Impact.** No known human remains are known to be present in the Project area. No cemetery or grave site is located within or adjacent to the Project site. However, in the event that excavation activities do uncover human remains, appropriate federal and State guidelines would be followed. No impacts will occur.

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<sup>8</sup> United States National Park Service, 2009. *National Register Information System* website. Available at [http://www.nr.nps.gov/iwisapi/explorer.dll?IWS\\_SCHEMA=NRIS1&IWS\\_LOGIN=1&IWS\\_REPORT=100000066](http://www.nr.nps.gov/iwisapi/explorer.dll?IWS_SCHEMA=NRIS1&IWS_LOGIN=1&IWS_REPORT=100000066). Accessed June 18.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>VI. GEOLOGY AND SOILS - Would the project:</b>				
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

**a.i. Less Than Significant Impact.** According to the City of Santa Clarita General Plan – Safety Element, the City is located within a geologically active region of Los Angeles. The City is located in the Transverse Range Geomorphic Province of California, which is characterized by east-west trending mountains and faults and also located within the Soledad Basin of northern Los Angeles County. It is bounded on the north and east by the San Andreas, Bee Canyon and Clearwater faults; on the west and south by the San Gabriel fault; and on the east and south by the San Gabriel Mountains. The San Gabriel fault is found within City limits and traverses through the City in a northwesterly direction. In addition, other faults are located near the City, including the San Andreas, Oak Ridge, Holser, San Fernando, and the Santa Susana faults. As shown in **Table VI-1, Active Faults Near the City of Santa Clarita**, several faults are located in proximity to City limits. The Holser and Santa Susana faults are located one mile

west and south of the City, respectively, with an estimated magnitude of 6.5 on the Richter Scale. The San Gabriel Fault has an estimated magnitude of 7.0.

**Table VI-I  
Active Faults Near the City of Santa Clarita**

Fault	Approximate Distance from City Limits (miles)	Estimated Moment Magnitude
San Gabriel	Crosses northwesterly through the City	7.0
Holser	1 mile west	6.5
Santa Susana	1 mile south	6.6
Blind Thrust	Below City, depth 6 miles	7.5
Sierra Madre - San Fernando Fault Zone	6 miles south	6.7
Oak Ridge	7 miles west	6.9
San Andreas	16 miles northeast	8.5

Source: City of Santa Clarita General Plan – Safety Element, 2001.

Historically, the City has been affected by significant major earthquake events in the past including the Sierra Madre Earthquake of 1991, the Northridge Earthquake of 1994, and the Hector Mine Earthquake in 1999.

The Sierra Highway Bridge is an existing, operating facility. The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge (Bridge No. 53C1777L&R) over the Santa Clara River. Construction and modification of the Sierra Highway Bridge over the Santa Clara River will be built in compliance with the latest city, county, State, and federal seismic development standards. Compliance with these standards will reduce potential impacts from fault rupture to less than significant.

- a.ii. Less Than Significant Impact.** Ground shaking is the greatest cause of damage in an earthquake. The severity of ground shaking at any point depends upon the size of the quake, the distance to the ruptured part of the fault plane and the local geologic condition that will either amplify or attenuate the earthquake waves. The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge (Bridge No. 53C1777L&R) over the Santa Clara River. The Proposed Project will present the same risks from seismic ground shaking as does the existing use. The Project site, like much of southern California, will be subject to ground shaking in the event of an earthquake. The Proposed Project will comply with all applicable city, county, State and federal seismic development standards. Therefore, Project impact in relation to the risk of loss, injury or death due to seismic ground shaking will be less than significant.

- a.iii. No Impact.** Liquefaction is a process by which water-saturated sediment temporarily loses strength, usually because of strong shaking during a major earthquake, and behaves as a fluid.<sup>9</sup> According to the City of Santa Clarita Seismic Hazard Zones Map, areas primarily found near the Santa Clara River and tributaries overlie unconsolidated alluvium with a high groundwater table. The Project Site is located in proximity to the Santa Clara River and is located within a liquefaction hazard zone. However, as the Proposed Project would widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River, the Proposed Project does not include construction of buildings for habitation. Therefore, no impacts that will expose people or structures to the risk of loss, injury or death involving seismic ground failure from liquefaction will occur.
- a.iv. No Impact.** The City consists of steep slopes and eroded hillsides composed of clays and shales. Shales are susceptible to pervasive fracturing that weaken slopes. Clays become slippery when wet and would slide against underlying rock if water enters a slope. It is also considered an expansive soil. However, the Project Site is located in an area with flat topography. The Proposed Project will not be affected by avalanches, rock falls, or landslides. Therefore, no project impact in relation to landslides will result.
- b. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Santa Clara River is unlined and has a soft bottom. Project construction activities will be based in the Santa Clara River in which temporary construction impacts will affect 2.8 acres of the Santa Clara River. Construction of the Proposed Project will also require grading and clearing of vegetation outside the riverbed to construct the abutments and wingwalls. Construction staging will occur within the existing right of way, which is comprised primarily of previously developed and disturbed areas outside the streambed. Grading activities will be limited and will not result in substantial soil erosion or loss of topsoil. Additionally, all construction activities will comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit, *Wastewater Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order No. R4-2008-0032, General NPDES Permit No. CAG994004) and any subsequent General Permit (as applicable) during the construction period, including the application of standard best management practices (BMPs) to ensure that construction activity does not degrade receiving waters. Therefore, Project construction impacts associated with soil erosion or the loss of topsoil will be less than significant.
- c. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. As previously discussed, the Project Site is located in a liquefaction hazard zone. This area could have ground failure due to liquefaction and become a potential hazard for buildings, utilities, and other facilities. Subsidence is the lowering of the ground surface and occurs as a result of the withdrawal of fluids such as water, oil, and gas from the subsurface. However, no large-scale local subsidence has been reported in the City and the City is located over consolidated sediments that are not prone to subsidence. Therefore, the Proposed Project will not be located on a geologic unit or soil that is unstable, or that will become unstable resulting in landslides, lateral spreading, subsidence, liquefaction, or collapse. Therefore, impacts will be less than significant.

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<sup>9</sup> City of Santa Clarita. City of Santa Clarita General Plan-Safety Element, October 2001.



- d. **No Impact.** Expansive soils is defined by shrink-swell which is the characteristic of a soil that determines its volume change with change in moisture content. Generally, soils with high clay content shrink and swell the most, although the type of clay is an important contributing factor. Damage to structures, such as cracking of foundations, could result from different movements or several alternative periods of shrink and swell. The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway over the Santa Clara River. The Project Site is an existing site with existing use as a bridge. Construction activities will temporarily affect 2.8 acres of the Santa Clara riverbed as construction equipment will need to be operated in the riverbed for removal of the southbound bridge and setting up temporary falsework to support the existing southbound bridge. No collapsible soils have been identified in the Project area by the City of Santa Clarita. In addition, the Proposed Project will not construct new residences or habitable structures. Therefore, the Project Site will not be located on expansive soils and will not create a substantial risks to life or property due to expansive soils. No impacts will occur.
- e. **No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project does not include the use of septic tanks or alternative wastewater disposal systems. Therefore, no Project impact in relation to a soil's capability to support septic tanks or alternative wastewater disposal systems will result.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**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?      | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

***Discussion:***

California has been in the forefront in developing legislation and regulations aimed at reducing GHG emissions. The following is a brief summary of the developments over the past few years.

***Executive Order S-3-05 (GHG Emissions Reductions)***

Executive Order #S-3-05, signed by Governor Arnold Schwarzenegger on June 1, 2005, calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80% reduction in GHG emissions to below 1990 levels by 2050.

***The California Climate Solutions Act of 2006 (AB 32)***

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006 (Health and Safety Code § 38500 et seq.), into law. AB 32 was intended to effectively end the scientific debate in California over the existence and consequences of global warming. In general, AB 32 directs CARB to do the following:

- On or before June 30, 2007, publicly make available a list of discrete early action GHG emission reduction measures that can be implemented prior to the adoption of the statewide GHG limit and the measures required to achieve compliance with the statewide limit;
- By January 1, 2008, determine the statewide levels of GHG emissions in 1990, and adopt a statewide GHG emissions limit that is equivalent to the 1990 level (an approximately 25% reduction in existing statewide GHG emissions);
- On or before January 1, 2010, adopt regulations to implement the early action GHG emission reduction measures;
- On or before January 1, 2011, adopt quantifiable, verifiable, and enforceable emission reduction measures by regulation that will achieve the statewide GHG emissions limit by 2020, to become operative on January 1, 2012, at the latest. The emission reduction measures may include direct emission reduction measures, alternative compliance mechanisms, and potential monetary and non-

monetary incentives that reduce GHG emissions from any sources or categories of sources as CARB finds necessary to achieve the statewide GHG emissions limit; and

- Monitor compliance with and enforce any emission reduction measure adopted pursuant to AB 32.

On December 11, 2008, the CARB approved the *Climate Change Scoping Plan* (CARB, 2008a) pursuant to AB 32. The Scoping Plan recommends a wide range of measures for reducing GHG emissions, including (but not limited to):

- Expanding and strengthening of existing energy efficiency programs;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a GHG emissions cap-and-trade program;
- Establishing targets for transportation-related GHG emissions for regions throughout the State, and pursuing policies and incentives to meet those targets;
- Implementing existing State laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Targeted fees to fund the State’s long-term commitment to administering AB 32.

#### **Executive Order S-01-07 (Low Carbon Fuel Standard)**

Executive Order #S-01-07 (January 18, 2007) establishes a statewide goal to reduce the carbon intensity of California’s transportation fuels by at least 10% by 2020 through establishment of a Low Carbon Fuel Standard. Carbon intensity is the amount of carbon dioxide equivalent (CO<sub>2</sub>e) per unit of fuel energy emitted from each stage of producing, transporting, and using the fuel in a motor vehicle. On April 23, 2009, the Air Resources Board adopted a regulation to implement the standard (CARB, 2009).

#### **Senate Bill 97**

Senate Bill 97 was signed by the governor on August 24, 2007. The bill required the Office of Planning and Research (OPR), by July 1, 2009, to prepare, develop, and transmit to the resources agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the State CEQA Guidelines for greenhouse gas emissions. The Resources Agency adopted those guidelines on December 30, 2009, and they became effective on March 18, 2010. The amendments treat GHG emissions as a separate category of impacts; i.e. they are not to be addressed as part of an analysis of air quality impacts.

Section 15064.4, which was added to the CEQA Guidelines, specifies how the significance of impacts from GHGs is to be determined. First, the lead agency should “make a good faith effort” to describe, calculate or estimate the amount of GHG emissions resulting from a project. After that, the lead agency should consider the following factors when assessing the impacts of the GHG emissions on the environment:

- The extent to which the project may increase or reduce GHG emissions, relative to the existing environmental setting;

- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction or mitigation of GHG emissions.

The Governor's Office of Planning and Research (OPR) has asked the CARB to make recommendations for GHG-related thresholds of significance. On October 24, 2008, the CARB issued a preliminary draft staff proposal for *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act* (CARB, 2008b). After holding two public workshops and receiving comments on the proposal, CARB staff decided not to proceed with threshold development.<sup>10</sup> Quantitative significance thresholds, if any are to be set by local agencies.

In 2012, the City of Santa Clarita adopted a climate action plan (CAP), which includes a GHG emission inventory, a public outreach program, a mitigation plan to reduce emissions to AB 32 targets, and a program to monitor emission reductions.<sup>11</sup> Projects undergoing environmental review under CEQA must demonstrate that they are consistent with the CAP. In general, development projects that are able to demonstrate consistency with the City of Santa Clarita General Plan and zoning ordinance will by association demonstrate consistency with the CAP.<sup>12</sup> "Large scale development projects that generate a significant number of vehicle miles travelled and/or are heavy industrial uses" may require a quantitative analysis to demonstrate that they would not affect the CAP's goal of reducing GHG emissions by 12% below the "business-as-usual" value forecast by the CAP. However, the Proposed Project will not generate additional vehicle miles traveled.

- a. Less Than Significant Impact.** According to the URBEMIS 2007 modeling that was performed for the air quality analysis, project construction activities will generate approximately 46.0 metric tons (tonnes) of carbon dioxide (CO<sub>2</sub>)<sup>13</sup> during 2014 and 53.6 tonnes during 2015. The latter value is 0.003% of the City's total GHG emissions in 2005 (1,717,648 tonnes);<sup>14</sup> thus, there will not be a significant impact upon climate change. Project operations will result in no net change in GHG emissions, as traffic volumes are not projected to increase or decrease, and on-site GHG-emitting activities (e.g., landscaping) will not change appreciably from existing levels.
- b. Less Than Significant Impact.** GHG emissions from the Proposed Project will be negligible during the operational phase. They will therefore not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Finally, the CAP recognizes "improving traffic flow" as a means for reducing GHG.<sup>15</sup> The Proposed Project will improve traffic flow and is in that way consistent with the CAP.

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<sup>10</sup> Personal communication from Douglas Ito, California Air Resources Board, Sacramento, California, to Michael Rogozen, UltraSystems Environmental Inc., Irvine, California. March 29, 2010.

<sup>11</sup> "City of Santa Clarita Climate Action Plan. Final Report." Prepared by ENVIRON International Corporation, Novato, California for City of Santa Clarita Community Development Department. Internet URL: <http://greensantaclarita.com/files/2012/10/APPROVED-CAP-AUGUST-2012.pdf>.

<sup>12</sup> Ibid., p. 53.

<sup>13</sup> Emissions of other GHGs, such as methane and nitrous oxide, would be at least an order of magnitude lower, so CO<sub>2</sub> emissions are reported here as representative of CO<sub>2</sub> equivalent emissions.

<sup>14</sup> "City of Santa Clarita Climate Action Plan. Final Report," p. 21.

<sup>15</sup> Ibid., p. 30.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS</b> - Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion:**

- a. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. Construction activities at the project site will be short-term and one-time in nature and will involve limited transport, storage, use and disposal of hazardous materials associated with construction. Servicing of construction equipment will not take place on-site. Materials used in the construction of the Proposed Project are not acutely hazardous, and all storage, handling, and disposal of these materials are regulated by the Department of Toxic Substances Control (DTSC), the United States Environmental Protection Agency (USEPA), and the Occupational Safety and Health Administration (OSHA). Adherence by the construction contractor to

the regulations set forth by these organizations will reduce hazards from routine transport, use, or disposal of hazardous materials from construction to a less than significant level. Operation of the Proposed Project will not involve the use of any type of hazardous substance. Therefore, Project impact in relation to the routine transport, use, or disposal of hazardous materials will be less than significant.

- b. Less Than Significant Impact.** Construction of the Proposed Project will involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. However, all hazardous materials will be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Also, none of these materials are considered to be acutely hazardous. Operation of the Proposed Project will not require the use of hazardous materials. Therefore, Project impact in relation to upset and accident conditions involving the release of hazardous materials into the environment will be less than significant.
- c. Less Than Significant Impact.** The closest schools to the Project Site are KinderCare Learning Center, located at 18525 West Soledad Canyon Road approximately 0.3 mile north of the Project site; Canyon Country Preschool located approximately 0.3 mile north of the Project Site; and Santa Clarita Christian School, located at 27249 Luther Drive, approximately 0.4 mile west of the Project Site. Construction activities will be short-term and temporary and will involve limited transport, storage, use and disposal of hazardous materials associated with construction. Servicing of construction equipment will not take place on-site. Materials used in the construction of the Proposed Project are not acutely hazardous, and all storage, handling, and disposal of these materials are regulated by the Department of Toxic Substances Control (DTSC), the United States Environmental Protection Agency (USEPA), and the Occupational Safety and Health Administration (OSHA). Adherence by the construction contractor to the regulations set forth by these organizations will reduce hazardous emissions impacts from construction to less than significant levels. Operation of the Proposed Project will not emit any hazardous emissions or handle hazardous or acutely hazardous materials or substances. Therefore, the Proposed Project will have a less than significant impact on hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- d. No Impact.** The DTSC's Geotracker Database indicated that there are no hazardous waste sites or clean-up sites on or in immediate proximity to the Project Site or within a one-mile radius.<sup>16</sup> However, leaking underground storage tanks (LUST) and permitted underground storage tanks (PUST) are located within a one-mile radius. **Table VIII-1, Hazardous Material Sites Located Within a One-Mile Radius from the Project Site,** lists the LUST and PUST located within a one-mile radius from the Project Site. **Figure VIII-1, DTSC GeoTracker Database Map With One Mile Radius Shown,** illustrates these findings. Nonetheless, the LUST sites are under site assessment or open remediation and no DTSC recognized hazardous waste sites or clean-up sites have been identified. Furthermore, the Proposed Project is not located on a site listed as a hazardous materials site. Therefore, the Proposed Project will not create a significant hazard to the public or the environment due to being on or in proximity to a hazardous materials site.

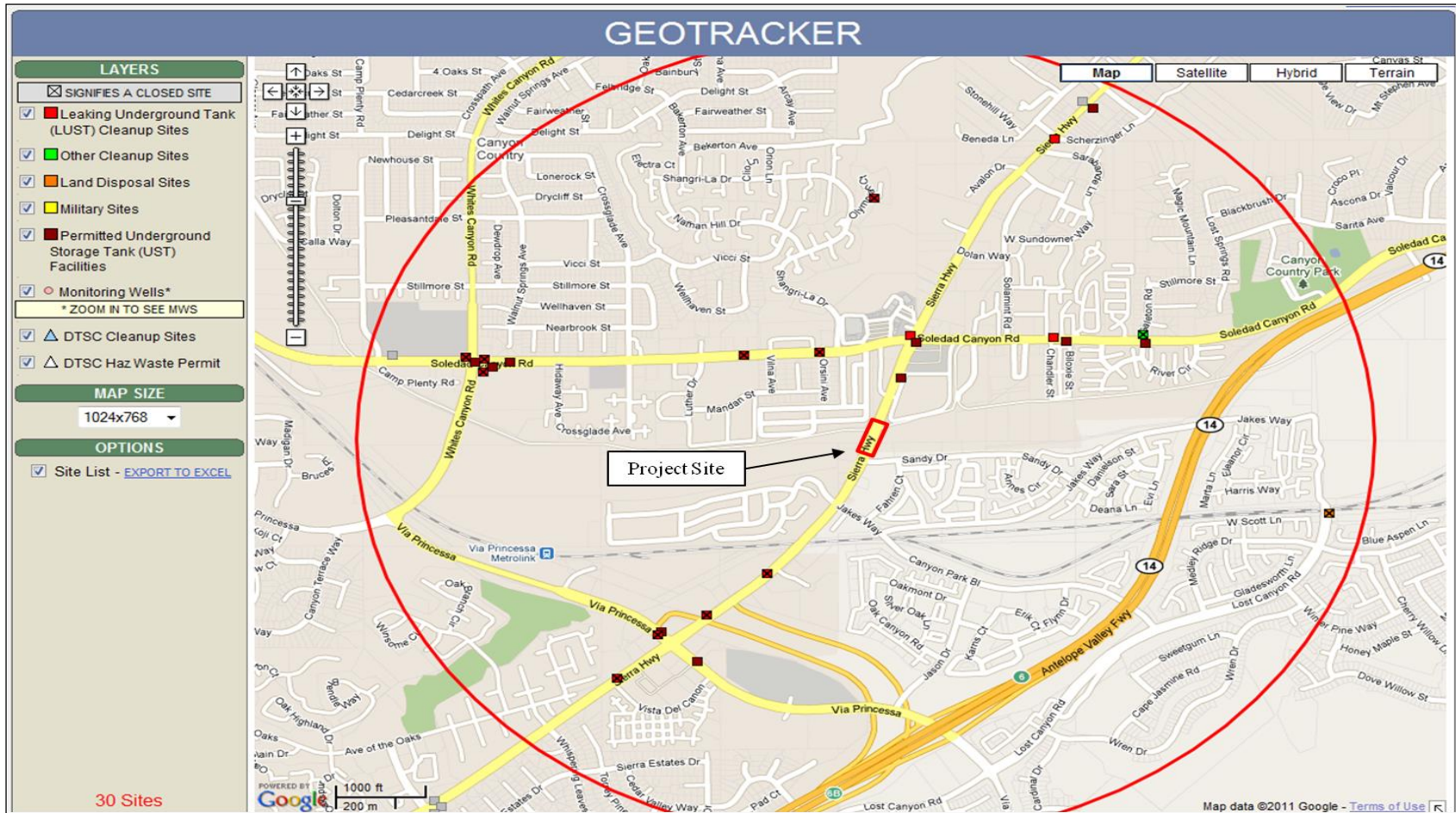
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<sup>16</sup> California State Water Resources Control Board GeoTracker, <http://geotracker.swrcb.ca.gov/>. Accessed May 2011.



<b>Table VIII-I Hazardous Material Sites Located Within a One-Mile Radius from the Project Site</b>		
<b>Site Name</b>	<b>Address</b>	<b>Cleanup Status</b>
<b><i>Leaking Underground Storage Tank (LUST)</i></b>		
K& D Automotive	18009 ½ N. Sierra Hwy.	Open - Site Assessment
LACO FD Fire Station No. 107	18239 W. Soledad Canyon Rd.	Open - Site Assessment
Mobil #18 - KCM	18501 Soledad Canyon Rd.	Open - Remediation
<b><i>Permitted Underground Storage Tank (PUST)</i></b>		
Canyon Country Gas Station	18003 Soledad Canyon Rd.	-
Chevron USA SS 094490	19266 Soledad Canyon Rd.	-
LA CO DPW Road Div. 553	17931 Sierra Hwy.	-
Mobil Oil Corp S/S #18 - KCM	18501 Soledad Canyon Rd.	-
Mobil Oil Corp S/S #18 - VBV	18755 Via Princessa	-
North Oaks Shell	19223 Soledad Canyon Rd. #A	-
Pacific Bell SLMNCA11/KC146	18211 Soledad Canyon Rd.	-
Texaco/Equilon #61-106-2065	18802 Via Princessa	-
USA Mini Mart #823	19301 Soledad Canyon Rd.	-
Water Wheel Car Wash	27567 Sierra Hwy.	-
<hr style="width: 20%; margin-left: 0;"/> Source: California State Water Resources Control Board GeoTracker, <a href="http://geotracker.swrcb.ca.gov/">http://geotracker.swrcb.ca.gov/</a> .		

- e. **No Impact.** The Project Site is not within two miles of a public use airport. The Proposed Project will replace and widen an existing bridge. As the proposed use would be the same as the existing use, and no significant above ground structures would be associated with the Proposed Project, the Proposed Project will have no impact in relation to safety hazards due to public airport activities.
  
- f. **No Impact.** The Project Site is not within two miles of a private airstrip. The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. As the proposed use will be the same as the existing use and no significant above ground structures will be associated with the Proposed Project, the Proposed Project would have no impact in relation to safety hazards due to private airstrip activities.



Source: California State Water Resources Control Board GeoTracker, <http://geotracker.swrcb.ca.gov/>, 2008.

- g. No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. Construction activities would occur within existing right-of-ways. Furthermore, the Project would be conducted in phases to maintain through traffic at all time during construction. While the southbound section of the bridge is replaced, the northbound section of the bridge will direct traffic with three lanes, one lane dedicated to the southbound direction and two lanes dedicated to the northbound direction.

When the northbound section of the bridge is widened, the southbound section of the bridge will direct traffic with three lanes, one lane dedicated to the southbound direction and two lanes dedicated to the northbound direction. Local residents, businesses, and emergency response providers will be notified of any lane closures at least 24 hours in advance of the beginning of construction.

As further discussed in **Section XIV, Public Services** of this IS/MND, the Los Angeles County Fire Department (LACoFD) and the Los Angeles Sheriff's Department (LASD) provide emergency services to the Project area. During construction, continuous bridge access for emergency response vehicles would be provided. Project operation would be similar to current conditions and would not physically interfere with adopted emergency response or evacuation plans. Therefore, the Proposed Project will have no impact with respect to implementation of or interference with adopted emergency response or evacuation plans.

- h. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will not build any habitable structures. In addition, the Project Site is located in a highly urbanized area and is not located adjacent to any major wildlands. Therefore, the Proposed Project will not subject people or structures to a significant risk of loss, injury, or death as a result of exposure to wildland fires.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IX. HYDROLOGY AND WATER QUALITY</b> - Would the project:				
a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems to provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place within a 100-year floodplain structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

- a. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Santa Clara River is unlined and has a soft bottom. Construction activities and equipment will be operated within the riverbed and will temporarily impact 2.8 acres of the Santa Clara riverbed. Construction activities will occur during the dry season when little or no water is present in the channel. In the event water is in the riverbed during construction, water will be diverted from the construction area using K-rail, sandbags, and



plastic sheeting to capture the upstream flow. Grading and clearing of vegetation will be required outside the riverbed to construct the abutments and wingwalls.

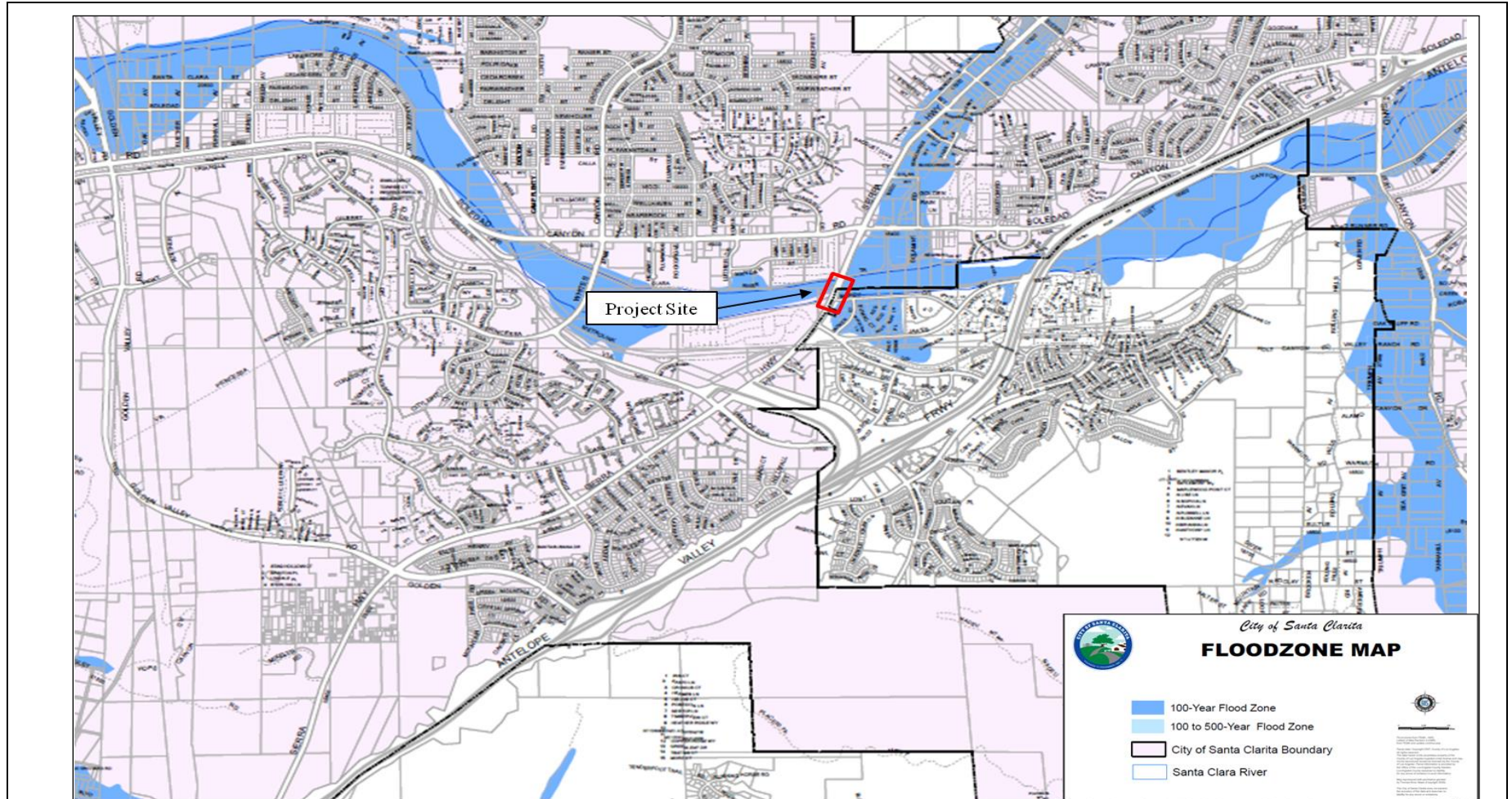
The Proposed Project will be subject to the requirements of the federal Clean Water Act. Therefore, the Proposed Project must comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit, and any subsequent General Permit (as applicable) during the construction period, including the application of standard best management practices (BMPs) to ensure that construction activity does not degrade receiving waters. Because the Proposed Project will not construct buildings or increase population, operation of the Proposed Project would not be a new source of waste discharge. With the implementation of standard construction BMPs, project impact on water quality standards or waste discharge requirements will be mitigated to less than significant levels.

- b. Less Than Significant Impact.** Construction of the Proposed Project, which includes the replacement and widening of an existing bridge, will require a minimal amount of water supply. Project operation of the new bridge will not require the use of any water supplies. Therefore, the Proposed Project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level during Project construction or operation.
- c. Less Than Significant Impact.** The Proposed Project intends to maintain the existing bridge drainage system. Runoff occurring from the Project Site would not alter the existing pattern of the site, or alter the course of a stream or river that would result in erosion or siltation on- or off-site. The Sierra Highway Bridge is an existing, operating facility. Any erosion impacts that may occur during Project construction will be minimized by the use of Best Management Practices (BMPs), such as the application of water and/or soil binders to reduce fugitive dust emissions. Therefore, the Proposed Project will not result in substantial erosion or siltation on- or off-site due to construction activities or alterations to the existing drainage pattern.
- d. Less Than Significant Impact.** As discussed above, the Proposed Project intends to maintain the existing bridge drainage system. Construction of the Proposed Project will result in a minor temporary use of water and is not anticipated to result in flooding on- or off-site. Completion of the Proposed Project will result in a wider bridge with more surface area. However, any additional surface runoff created by the increase in surface area will not be significant as runoff generated at the Project Site will drain into the existing drainage system. The widening of the Sierra Highway Bridge over the Santa Clara River will not result in flooding on- or off-site. As a result, Proposed Project impact on flooding due to Project construction or alteration of the existing drainage pattern will be less than significant.
- e. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. These bridge modifications would result in a bridge with more surface area. However, the Proposed Project would not construct new buildings or increase population. Therefore, the Proposed Project would not create a significant new source of runoff water. Pollution from leaking vehicle fluids would remain similar to existing conditions, as the Proposed Project is not intended to increase traffic levels. Therefore, Project impact on runoff water or polluted runoff will be less than significant.
- f. Less Than Significant Impact.** The Proposed Project will have no additional impacts to water quality beyond those discussed in the preceding questions. The Proposed Project will result in a 52-foot wide

northbound bridge deck and a 52-foot wide southbound concrete bridge. The construction area for the bridge will exceed one acre and therefore will be subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) stormwater permit for construction activities. Water quality after Project construction would be similar to existing conditions, since the Proposed Project would not increase the amount of traffic on Sierra Highway. Therefore, Project impact on water quality will be less than significant.

- g. No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. According to the City of Santa Clarita Flood Zone Map, **Figure IX-1**, the Project Site is located within a 100-year floodplain zone. In addition, the areas located southeast and northeast of the Project Site are also located within a 100-year floodplain zone. However, even though the Proposed Project is located within a 100-year floodplain, the Proposed Project will not build housing or other habitable structures. Therefore, no impacts on housing within a 100-year floodplain will result.
- h. No Impact.** As discussed above, the Project Site is located within a 100-year floodplain zone but the Proposed Project will not build housing or other structures that would impede or redirect flood flows. The Project Site is an existing roadway with existing uses. In addition, the Proposed Project includes the construction of bridge piers; however, this will not impact the floodplain since the new piers will not be significantly different in size than the former piers in the floodplain. Therefore, no Project impact on structures within a 100-year floodplain will result.
- i. Less Than Significant Impact.** According to the City of Santa Clarita Safety Element, two primary flood hazard areas occur in and along natural drainage channels. These include the Castaic Reservoir, located approximately 11 miles northwest of the Project Site, and the Bouquet Reservoir, located approximately 13 miles north of the Project Site. Castaic Reservoir will potentially flood the communities of Castaic, Val Verde, and Valencia. At the Castaic Junction, the flow would turn westward and augment the Santa Clara River. The Bouquet Reservoir will potentially flood the communities of Saugus and Valencia. After flooding down Bouquet Canyon, the flood water would enter the Santa Clara River. However, the Project Site is not located in the Castaic, Val Verde, Valencia, or Saugus area and would not be immediately subject to flooding risks. In addition, the Proposed Project will not construct housing or other habitable structures that will expose people or structures to a significant risk of loss, injury or death involving flooding (including flooding as a result of the failure of a levee or dam). Therefore, impacts will be less than significant.
- j. No Impact.** A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, or lake. A tsunami is a great sea wave produced by a significant undersea disturbance. Mudflows result from the downslope movement of soil and/or rock under the influence of gravity. The closest body of surface water is Castaic Dam, approximately 11 miles northwest of the Project site. Due to the distance, a seiche at Castaic Dam will not result in any impact to the Project site. As the Project Site is greater than 10 miles from the Pacific Ocean, no impact from a tsunami will result. As the Project Site is located in a relatively flat area, the Site will not be subject to mudflows. Therefore, no impact from inundation by seiche, tsunami or mudflow would result at the Project site.





Source: City of Santa Clarita Floodzone Map, 2007.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>X. LAND USE AND PLANNING</b> – Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

- a. No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Sierra Highway Bridge is an existing, operating facility. The Proposed Project will not erect new buildings or structures that would physically divide an established community. Therefore, no Project impact will result.
- b. No Impact.** The City of Santa Clarita does not have a land use designation for streets and bridges. Sierra Highway is identified as a major highway within the City of Santa Clarita Circulation Element and will not conflict with any existing land use regulations. The Proposed Project will maintain current land uses for the City of Santa Clarita. Therefore, the Proposed Project will not conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the Proposed Project.
- c. No Impact.** The Proposed Project will widen the existing Sierra Highway Bridge over the Santa Clara River. The Project Site is not located within any applicable habitat conservation plan or natural community conservation plan. However, the Santa Clara River is identified as a Significant Ecological Area (SEA) which is discussed further in IV. Biological Resources of this IS/MND. Therefore, the Proposed Project will not conflict with any habitat conservation plan or natural community conservation plan and no impacts will occur.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XI. MINERAL RESOURCES</b> - Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

- a. No Impact.** According to the Open Space and Conservation Element Amendment of the City of Santa Clarita General Plan, the Santa Clarita Valley area is rich in mineral resources including construction aggregate, titanium, and tuff. The Santa Clara River is designated as a construction aggregate resource area, which can include sand, gravel, and crushed rock. Construction activities will create temporary impacts to approximately 2.8 acres of the river bed. Construction staging will occur within the existing right of way, which is comprised of previously developed and disturbed areas outside of the stream bed. The Project Site is not currently mined for mineral resources including sand or gravel resources. Therefore, there would be no impact on the availability of a known mineral resource that will be of value to the region and residents of the state as a result of the Proposed Project.
- b. No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Project Site is not currently delineated on a local general plan, specific plan, or other land use plan as an important mineral resource recovery site. Therefore, no impact on locally important mineral resource recovery sites will occur as a result of the Proposed Project.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XII. NOISE</b> - Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

Noise is defined as sound that is unwanted, undesirable, or annoying.<sup>17</sup> Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air and is most commonly characterized by pressure level. Noise measurements are weighted more heavily within the frequencies of maximum human sensitivity; these measurements are written as dBA, or A-weighted decibels.

A noise environment consists of a base of steady “background” noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway.

To the human ear, a sound 10 dBA higher than another is judged to be twice as loud; 20 dBA higher is four times as loud; and so forth. In general, a difference of more than 3 dBA is a perceptible change in

<sup>17</sup> Ventura County Initial Study Assessment Guidelines. February 2006.



environmental noise, while a 5-dBA difference typically causes a change in community reaction, and an increase of 10 dBA is perceived by people as doubling of loudness.<sup>18</sup>

### *Noise Scales*

Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales account for the dependence of the effect of noise on the total acoustical energy content as well as the duration of occurrence. The noise scales that are typically used are the equivalent noise level ( $L_{eq}$ ), and the community noise equivalent level (CNEL).  $L_{eq}$  is a measurement of the acoustic energy content of noise averaged over a specified time period. Thus, the  $L_{eq}$  of a time-varying sound and that of a steady sound are the same if they deliver the same amount of energy to the receptor ear during exposure. CNEL is a 24-hour average  $L_{eq}$  that accounts for the sensitivity to noise during evening and nighttime hours. CNEL is calculated by adding 5 dBA to sound levels in the evening (7:00 p.m. to 10:00 p.m.) and adding 10 dBA to sound levels at night (10:00 p.m. to 7:00 a.m.). Another noise metric is the  $L_{dn}$ , which is a 24-hour average  $L_{eq}$  that accounts for the sensitivity to noise during nighttime hours.  $L_{dn}$  is calculated by adding 10 dBA to sound levels at night (10:00 p.m. to 7:00 a.m.).

### *Noise Level Standards*

#### *City of Santa Clarita Noise Ordinance*

The City of Santa Clarita has established property line noise limits.<sup>19</sup> The noise received at the property line of a residence as a result of activity on another property cannot exceed 65 dBA in the daytime or 55 dBA at night. For commercial and manufacturing properties, the daytime and nighttime limits are 80 dBA and 70 dBA, respectively. These limits are adjusted for certain conditions. For repetitive, impulsive noise, such as pile driving, the limits are reduced by 5 dBA. For noise occurring more than 5 minutes but less than 15 minutes per hour, the limits are increased by 5 dBA.<sup>20</sup>

Construction activity requiring a building permit from the City on sites within 300 feet of a residentially zoned property is permitted between 7:00 a.m. and 7:00 p.m., Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturday. No construction work is permitted on Sundays, New Year's Day, Independence Day, Thanksgiving Day, Christmas Day, Memorial Day, and Labor Day. The Department of Community Development may also issue a permit for work to be done "after hours," provided that "containment of construction noises" is provided.<sup>21</sup> Because the Proposed Project construction activity will not require a building permit, the time restriction on construction activity may not apply. However, because of the proximity of residential areas to the project site, a mitigation measure requiring time limits is proposed below.

- a. Less Than Significant With Mitigation Incorporated.** Construction and operation of the Proposed Project may expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance.

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<sup>18</sup> U.S. Environmental Protection Agency (USEPA). *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*. March 1974.

<sup>19</sup> City of Santa Clarita Municipal Code, Title 11, Chapter 11.44, Section 11.44.040(A) (January 23, 1990).

<sup>20</sup> City of Santa Clarita Municipal Code, Title 11, Chapter 11.44, Section 11.44.040(B) (January 23, 1990). Additional adjustments are included in this code section.

<sup>21</sup> City of Santa Clarita Municipal Code, Title 11, Chapter 11.44, Section 11.44.080 (August 24, 2010).

*Construction (Short-Term Impacts)*

Construction of the Proposed Project may generate short-term and intermittent high noise levels. Construction noise levels will fluctuate depending on construction activity, equipment type and duration of use, and the distance between noise source and receiver. Typical sound emission characteristics of construction equipment are provided in **Table XII-1, Typical Construction Equipment Noise Levels.**

<b>Table XII-I Typical Construction Equipment Noise Levels</b>		
<b>Equipment Type</b>	<b>Range of Noise Level of Equipment at 50 ft. (in dBA)</b>	<b>Suggested Noise Level for Analysis at 50 ft. (in dBA)</b>
Dozer	77-90	83
Trucks	81-95	88
Backhoe	81-90	83
Concrete Pump	74-84	82
Mobile Crane	80-85	83
Forklift	81-86	84
Paver	82-92	89
Shovel	77-90	82
Pavement Breaker	75-85	82
Pneumatic Tools	78-88	85
Air Compressor	76-89	81
Generator	71-87	80
Pump	68-80	76
Concrete Mixer Truck	69-89	85
Electric Saw	59-80	78
Pile Driver (Impact Type)	94-107	84.2 <sup>22</sup>

Source:

1. U.S. Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, December 1971.
2. County of Ventura, Construction Noise Threshold Criteria and Control Measures, May 2002. California State Water Resources Control Board GeoTracker, <http://geotracker.swrcb.ca.gov/>.

<sup>22</sup> Reference noise level at 25 feet. This value was calculated as a one-hour time-weighted average, accounting for the durations of peak sound levels from impacts and from pile driver exhaust, and of intervening silences. Data for this analysis were obtained from Zechmann, E. and C. Hayden. 2009. "Analysis of Pile Driver Exhaust and Impact Noise," *Journal of the Acoustical Society of America* 125(4): 2744-2744.



The equipment deployment schedule that was assumed for the air quality analysis was also used for the construction noise impact analysis. Typical values for noise emissions (expressed as short-term noise exposures at 50 feet<sup>23</sup>) for the types of equipment to be used for the Project were obtained mainly from the Federal Highway Administration's FHWA Highway Construction Noise Handbook.<sup>24</sup> Noise exposures were calculated for all scheduled combinations of equipment. Because equipment will operate on different portions of the site on different days, the distance to nearest sensitive receptor for each combination of equipment was measured and used in the computations. Because particular days of construction include construction phases located in both the north and south end of the Sierra Highway Bridge, an equivalent distance to the nearest sensitive receptor was developed to provide a more accurate way of estimating construction equipment noise exposures.<sup>25</sup> No intervening terrain or barriers were assumed. The attenuation equation assumed a soft ground surface between the noise sources and the receptors.

The maximum 1-hour average noise exposure will be 74.6 dBA  $L_{eq}$ . It will occur over about five days, while the southern part of the southbound bridge is being reconstructed and the abutment and wingwalls are being constructed for the northern part of the southbound bridge. Use of a concrete saw contributes about 72.5 dBA to the exposure, or about 61 percent of the total sound pressure. The residential property line noise limit is 65 dBA. Therefore 9.6 dBA must be mitigated. Mitigation measures are presented below.

- b. Less Than Significant Impact With Mitigation Incorporated.** Vibration is sound radiated through the ground. The rumbling sound caused by vibration is called groundborne noise. The ground motion caused by vibration is measured as peak particle velocity (PPV) in inches per second and is referenced as vibration decibels (VdB). Typical outdoor sources of perceptible groundborne vibration are construction equipment and traffic on rough roads.

The American National Standards Institute (ANSI) indicates that vibration levels in critical care areas, such as hospital surgical rooms and laboratories, should not exceed 0.2 inch per second of PPV.<sup>26</sup> The Federal Transit Administration (FTA) also uses a PPV of 0.2 inch per second as vibration damage threshold for fragile buildings and a PPV of 0.12 inch per second for extremely fragile historic buildings. The FTA criterion for infrequent groundborne vibration events (less than 30 events per day) that may cause annoyance are 80 VdB for residences and buildings where people normally sleep, and 83 VdB for institutional land uses with primarily daytime use.<sup>27</sup>

#### *Construction (Short-Term Impacts)*

It is expected that groundborne vibration from project construction activities would cause only intermittent, localized intrusion. The FTA has published standard vibration level and peak particle velocities for

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<sup>23</sup> The reference distance was 50 feet unless otherwise specified.

<sup>24</sup> U.S. Department of Transportation, Federal Highway Administration. FHWA Highway Construction Noise Handbook. John A. Volpe National Transportation Systems Center, Cambridge, Massachusetts, FHWA-HEP-06-015. August 2006.

<sup>25</sup> The equivalent distance is the distance from the nearest sensitive receiver at which all noise sources would have to be located so that the total  $L_{eq}$  at the receiver is the same as the sum of all  $L_{eq}$  values from all sources at their actual locations.

<sup>26</sup> American National Standards Institute (ANSI). *Guide to the Evaluation of Human Exposure to Vibration in Buildings*. ANSI S.329-1983. 1983.

<sup>27</sup> Federal Transit Administration. *Transit Noise and Vibration Impact Assessment*. May 2006.

construction equipment operations.<sup>28</sup> The calculated root mean square (RMS) velocity level expressed in VdB and PPV for construction equipment at distances of 25, 50, and 100 feet are listed in **Table XII-2, *Vibration Levels of Construction Equipment***.

As shown in **Table XII-2**, the vibration level of construction equipment, except for impact pile drivers, will be below the FTA damage threshold of 0.12 inch per second PPV for fragile historic buildings at a distance of 25 feet from the construction equipment operation. Vibration from pile drivers is estimated to be 0.0805 inch per second PPV at 100 feet from the construction site. However, since no building structures will be located within 100 feet of the construction site, vibration from the project’s construction will not cause any structural damage. Because the closest sensitive receptors are located nearer than 117 linear feet (123 feet through the ground) from project construction activities, pile driving for the Proposed Project will generate groundborne vibrations of 83 VdB, which would cause human annoyance. Mitigation measures are presented below.

<b>Table XII-2 Vibration Levels of Construction Equipment</b>								
<b>Equipment</b>	<b>PPV at 25 ft. (in/sec)</b>	<b>RMS at 25 ft. (VdB)</b>	<b>PPV at 50 ft. (in/sec)</b>	<b>RMS at 50 ft. (VdB)</b>	<b>PPV at 100 ft. (in/sec)</b>	<b>RMS at 100 ft. (VdB)</b>	<b>PPV at Receptor (in/sec)</b>	<b>RMS at Receptor (VdB)</b>
Loaded Truck	0.0760	86	0.0269	77	0.0095	68	0.0075	66
Jackhammer	0.0350	79	0.0124	70	0.0044	61	0.0035	59
Small Bulldozer	0.0030	58	0.0011	49	0.0004	40	0.0003	38
Pile Driver (Impact Type)	0.6440	104	0.2277	95	0.0805	86	0.0590	83
Source: Federal Transit Administration (FTA). 2006. <i>Transit Noise and Vibration Impact Assessment</i> . May. Chapter 12.							-	-

- c. **No Impact.** As discussed previously, operation of the Proposed Project will not introduce new stationary and/or mobile noise sources. Therefore, no impacts are expected from the Proposed Project operation.
- d. **Less Than Significant Impact With Mitigation Incorporated.** As discussed previously, the Proposed Project will potentially generate high noise levels during the short-term construction activities. However, with implementation of the mitigation measures presented below, the impact of the Proposed Project on temporarily increasing ambient noise levels in the vicinity of the Proposed Project will be less than significant.

**Mitigation Measures:**

**Mitigation Measure XII-1 – Adhere to City of Santa Clarita Temporal Restrictions**

<sup>28</sup> Ibid.

Construction activity on sites within 300 feet of a residentially zoned property will be permitted between 7:00 a.m. and 7:00 p.m., Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturday. No construction work is permitted on Sundays, New Year's Day, Independence Day, Thanksgiving Day, Christmas Day, Memorial Day, and Labor Day.

### **Mitigation Measure XII-2 – Noise Mitigation During High-Noise and High-Vibration Activities**

The County shall implement as many of the following measures as is practicable to reduce residential exposure during pile driving and other times when sensitive receivers will be exposed to more than 70 dBA  $L_{eq}$  and/or to more than 80 VdB (groundborne vibration level).

- To help reduce the noise from concrete saw cutting, a “silent” diamond blade can be used. Manufacturers include Hilti, Husqvarna and Norton Abrasives. These blades are typically constructed of layers of metal with different densities, which offer a sound dampening effect. They are often laser-cut with slots that are filled with sound-dampening epoxy. This configuration can reduce saw blade noise by as much as 15 dB.
- Pre-auger pile holes to reduce the duration of impact, when feasible.
- On pile drivers, use a resilient pad between the pile and the hammer head, when feasible. This will reduce vibration impacts by a factor of two.
- Where practical, replace proposed equipment with newer, and presumably quieter models.
- Where practical, replace equipment powered by internal combustion engines with electric-powered equipment, using available line current or generators kept far away from sensitive receivers.
- Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with an intact and operational muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.
- Ensure that all equipment items have the manufacturers’ recommended noise abatement features, including but not limited to mufflers, engine enclosures, and engine vibration isolators; and that these noise-reducing features are intact and operational.
- Turn off idling equipment after no more than five minutes.
- Wherever practical, enclose the work areas of individual pieces of equipment, or wall off one side of the construction site with noise barriers or noise curtains. Noise barriers may be constructed of readily available construction materials, such as plywood or blocks. Noise-absorbing “blankets” may be installed on the sides of the barriers closest to the noise source(s). Commercial barriers made of panels lined with sound-absorbing material may also be employed.
- The length of a noise barrier should be greater than its height, and the noise source must not be visible from the receptor.
- Noise barriers should be placed as close as possible to either the noise source or the receptors.

- When insulation material is part of a noise barrier, the noise-absorptive surfaces must face the noise source(s).
  
- e. **No Impact.** The Project Site is not located within two miles of a public airport or a public use airport. Furthermore, no one lives or works in the Project area. Therefore, no impact will occur.
  
- f. **No Impact.** The Project Site is not within the vicinity of a private use airport. Furthermore, no one lives or works in the project area. Therefore, no impact will occur.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIII. POPULATION AND HOUSING</b> - Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

- a. **No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will not include the construction of homes or businesses, or otherwise induce population growth. Increased employment due to the bridge improvements will be short-term and temporary. The work force required for the bridge improvements requires no specialized expertise that would necessitate importation of workers from outside of the area that would result in increased housing demand. Therefore, no Project impact on population growth would result.
- b. **No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will not displace any housing, as there are no homes on the Project site. Therefore, the Proposed Project will not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- c. **No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will not displace any people, as there are no homes on the Project site. Therefore, the Proposed Project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**XIV. PUBLIC SERVICES:** Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

**a. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. Construction activities will occur within existing right-of-ways. Furthermore, the Proposed Project will be conducted in phases to maintain through traffic at all time during construction. While the southbound section of the bridge is replaced, the northbound section of the bridge will direct traffic with three lanes, one lane dedicated to the southbound direction and two lanes dedicated to the northbound direction. When the northbound section of the bridge is widened, the southbound section of the bridge will direct traffic with three lanes, one lane dedicated to the southbound direction and two lanes dedicated to the northbound direction. Local residents, businesses, and emergency response providers will be notified of any lane closures at least 24-hours in advance of the beginning of construction.

The City of Santa Clarita contracts with the Los Angeles County Fire Department (LACoFD) for fire protection services. LACoFD Station 107, located at 18239 W Soledad Canyon Road, currently serves the Project area. As the Proposed Project will widen the Sierra Highway Bridge over the Santa Clara River, project operation would have no impact on fire protection as conditions after construction will remain similar to existing conditions. Therefore, project impact in relation to fire protection would be less than significant.

**b. Less Than Significant Impact.** As discussed above, the Proposed Project would widen the existing Sierra Highway Bridge over the Santa Clara River without adding new additional travel lanes. During construction, one lane would remain maintained and open in the southbound direction, and two lanes would remain maintained and open in the northbound direction. Local residents, businesses, and emergency response providers would be notified of any lane closures at least 24-hours in advance of the beginning of construction.



Police services are provided by the Los Angeles County Sheriff's Department – Santa Clarita Valley Station, located at 23740 Magic Mountain Parkway, approximately seven miles west of the Project Site. Staging areas used for construction equipment and materials will be secured to prevent unlawful entry to these areas and/or to prevent the theft of materials stored in these areas. Project operation will have no impact on police protection, as conditions after construction would remain similar to existing condition. Therefore, project impact in relation to police protection will be less than significant.

- c. **No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project would not induce population growth or include the construction of new residences that will require additional school facilities. Therefore, no Project impact on school facilities will result.
- d. **No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will not induce population growth or include the construction of new residences that will require additional park and recreation facilities. Therefore, no Project impact on park services will result.
- e. **No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will not induce population growth or include the construction of new residences that will require additional governmental services (such as libraries). Therefore, no Project impact on other governmental services will result.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XV. RECREATION**

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Discussion:**

- a. No Impact.** The closest parks to the Project Site are Canyon Country Park, located at 17615 Soledad Canyon Road, approximately 1.2 miles north from the Project area, and Friendly Valley Golf Course located at 19345 Avenue of the Oaks, approximately 1.7 miles south of the Project Site. The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will widen an existing bridge, and would not induce population growth or include the construction of new residences that will result in the increase use of existing park or recreational facilities such as Canyon Country Park or Friendly Valley Golf Course. Therefore, no increased use of neighborhood and regional parks or other recreational facilities will result.
- b. No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River, and will not include the construction of new recreational facilities or require the expansion of existing recreational facilities. Therefore, no construction or expansion of neighborhood and regional parks or other recreational facilities will be required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVI. <u>TRANSPORTATION/TRAFFIC</u> - Would the project:</b>				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

**a. Less Than Significant Impact With Mitigation Incorporated.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will widen the existing northbound and southbound lanes of the Sierra Highway Bridge over the Santa Clara River without creating additional travel lanes or affecting the bike path under the bridge. The Proposed Project is not intended to increase traffic capacity, but would better accommodate traffic flow by widening the 43-foot wide northbound bridge deck to 52 feet and by replacing the 44-foot wide southbound concrete bridge with a 52-foot wide concrete bridge.

Sierra Highway is designated as a major highway designed with six traffic lanes; three northbound and three southbound. On-street parking is prohibited on major highway designations. A pedestrian walkway currently exists on the northbound bridge deck, and the Proposed Project also incorporates a pedestrian walkway on the southbound bridge deck as well. The Proposed Project will not include changes to the highway or freeway and would not result in significant impact to mass transit. Construction activities will occur within the existing right-of-ways. Furthermore, the Proposed Project will be conducted in phases to

maintain through traffic at all times during construction. While the southbound section of the bridge is replaced, the northbound section of the bridge will direct traffic with three lanes, one lane dedicated to the southbound direction and two lanes dedicated to the northbound direction. When the northbound section of the bridge is widened, the southbound section of the bridge will direct traffic with three lanes, one lane dedicated to the southbound direction and two lanes dedicated to the northbound direction. This will result in a temporary, short-term impact on local traffic patterns during Project construction due to the lane closures (retaining one lane in the southbound direction, and two lanes in the northbound direction). The temporary short-term traffic impacts would result during peak traffic hours of the day and night. However, the Proposed Project is not anticipated to significantly change local traffic patterns during Project operation or to cause an increase in traffic due to population growth or change in land use, as no new housing or commercial uses are proposed as part of the project. Therefore, project impact in relation to the performance of the circulation system will be less than significant.

**Mitigation Measures:**

**Mitigation Measure XVI-1 – Notification of Lane Closures**

The City will notify local residents, businesses, and emergency response providers of any lane closures at least 24 hours in advance of the beginning of construction.

- b. Less Than Significant Impact.** The Los Angeles County Metropolitan Transportation Authority (Metro) establishes level of service standards for selected intersections in Los Angeles County, in which the Project Site is located. The Congestion Management Plan (CMP) is a state-mandated program administered in the County by Metro. The CMP is used to assist local agencies in linking land use decisions with impacts on the regional's transportation system. The Proposed Project will widen an existing bridge. The northbound bridge deck will be widened from the existing width of 43 feet wide to 52 feet wide. The 44-foot southbound concrete bridge would be replaced with a 52-foot wide concrete bridge. During construction, it is anticipated that one lane would remain open in the southbound direction, and two lanes would remain open in the northbound direction. The Proposed Project will not generate additional traffic in the area after construction. Therefore, Project impact on level of service standards established by Metro will be less than significant.
- c. No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Project Site is not within two miles of a public use airport or private airstrip. Since the Proposed Project will be constructed at- or below-grade, there would be no impact to air traffic. Therefore, the Proposed Project will not result in a change in air traffic patterns that would result in substantial safety risks to either aircraft or to the Project site.
- d. No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. No proposed design feature will increase hazards at the Sierra Highway or the Project area. The Proposed Project design features will create wider travel lanes without adding additional travel lanes to the existing bridge and no change to the land uses in the vicinity of the Project Site after construction is anticipated. Therefore, the Proposed Project will not substantially increase safety hazards due to a design feature or incompatible use.
- e. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. Construction will

occur on one side of the bridge at a time with one lane open in the southbound direction, and two lanes open in the northbound direction. As discussed in **Section XIV, Public Services** of this IS/MND, the Project area is served by LACoFD and the LASD. In the event of an emergency, public safety services will be able to utilize the bridge since one lane would remain open in the southbound direction, and two lanes would remain open in the northbound direction during construction activities. After construction, the Proposed Project will maintain access to adjacent properties and will not result in inadequate emergency access. Therefore, project impacts to emergency access will be less than significant.

- f. **No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. Sierra Highway is a six lane major highway with no existing bicycle lanes and a pedestrian walkway on the northbound side. The City of Santa Clarita has prepared a proposed Master Plan of Bikeways in which bike lanes will be proposed on Sierra Highway. Although the Proposed Project will not include the creation of bicycle lanes on the bridge, the new bridge will be wide enough for striped bike lanes. In addition, the Proposed Project will incorporate a pedestrian walkway on the southbound side. The Proposed Project will not prevent any bus routes to continue to operate or provide service to the Project area during either Project construction or operation. Therefore, the Proposed Project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b><u>XVII. UTILITIES AND SERVICE SYSTEMS</u></b> - Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in a determination by the wastewater treatment provider, which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion:**

- a. Less Than Significant Impact.** The Project Site is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB). The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Sierra Highway Bridge is an existing and operational facility and would not generate significant quantities of wastewater during construction or operation. The Proposed Project Site is located over the Santa Clara River in which the soft bottom is unlined and both banks of the streambed within the Project Site are concrete lined. Therefore, the Proposed Project is subject to the requirements of the federal Clean Water Act and must comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit, *Wastewater Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order No. R4-2008-0032, General NPDES Permit No. CAG994004) and any subsequent General Permit (as applicable) during the construction period, including the application of standard best management practices (BMPs) to ensure that construction activity does not degrade receiving waters such as the Santa



Clara River. Therefore, the Proposed Project will not exceed wastewater treatment requirements of the LARWQCB and Project impact on wastewater treatment will be less than significant.

- b. No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. The Proposed Project will not induce population growth by constructing housing or creating new jobs. Therefore, the Proposed Project will not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- c. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound concrete bridge on the Sierra Highway over the Santa Clara River, which is a soft-bottom and unlined. As previously stated, the Project will comply with the requirements of a National Pollutant Discharge Elimination System (NPDES) Permit, *Wastewater Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order No. R4-2008-0032, General NPDES Permit No. CAG994004) and any subsequent General Permit (as applicable) during the construction period, including the application of standard best management practices (BMPs) to ensure that construction activity does not degrade receiving waters such as the Santa Clara River. The Proposed Project will replace or repair any storm drain facilities destroyed or damaged during construction, but would not result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, Project impact in relation to storm water drainage facilities will be less than significant.
- d. No Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge over the Santa Clara River. Water use during Project construction will be short-term and temporary and significant quantities of water will not be needed for bridge construction. The amount of water required during construction will be minimal. No additional water will be needed during Project operation that does not already occur. Therefore, the project will not result in an impact on water supplies.
- e. No Impact.** As discussed above in this section, construction of the Proposed Project could result in a minor temporary generation of wastewater. However, the Proposed Project would not induce population growth through the construction of new housing or businesses. Wastewater treatment needs during Project operation would remain similar to existing wastewater treatment needs and continue to be processed by local wastewater treatment facilities. Therefore, the Proposed Project would not increase demand for wastewater treatment and no Project impact on wastewater treatment facilities would result.
- f. Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound concrete bridge on the Sierra Highway over the Santa Clara River. Materials from bridge demolition and construction will be reused or recycled on-site in the construction of the new bridge according to current City and State standards (50% of construction and demolition waste must be diverted from the waste stream). The City of Santa Clarita Construction and Demolition (C&D) Ordinance (05-09) requires that all new construction projects valued over \$500,000 and all tenant improvements valued over \$100,000 to recycle a minimum of 50 percent of all inert materials and 50% of all other materials. The

remaining material would be disposed of at an inert materials facility.<sup>29</sup> Other waste materials generated by project construction would be sent to the Chiquita Canyon Sanitary Landfill located at 29201 Henry Mayo Drive in the unincorporated community of Castaic. Operation of the Proposed Project would not generate any significant amount of solid waste. Therefore, the Proposed Project would have a less than significant impact on landfills.

- g. Less Than Significant Impact.** Solid waste management is guided by the California Integrated Waste Management Act of 1989 that emphasizes resource conservation through reduction, recycling, and reuse of solid waste. The Act requires that localities conduct a Solid Waste Generation Study (SWGS) and develop a Source Reduction Recycling Element (SRRE). Solid waste generated during the demolition of the existing bridge and construction of the new bridge will be disposed of in accordance with all applicable statutes and conservation measures regarding solid waste and recycling of waste materials, including those mentioned above. Operation of the Proposed Project will not generate solid waste. Therefore, the Proposed Project will comply with all federal, state, and local statutes and regulations related to solid waste. Project impacts in relation to solid waste disposal regulations will be less than significant.

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<sup>29</sup> According to the California Integrated Waste Management Board, inert solid waste consists of concrete, asphalt, dirt, brick and other rubble.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE</b>				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion:**

- a. **Less Than Significant Impact.** The Proposed Project will widen the northbound bridge deck and replace the southbound bridge on the existing Sierra Highway Bridge (Bridge No. 53C1777L&R) over the Santa Clara River. The Project is intended to better accommodate traffic flow by widening the northbound bridge deck to 52 feet and replacing the southbound bridge with a 52-foot wide concrete bridge. The Proposed Project will also construct abutments and wingwalls for the southbound bridge. Based on the preceding analysis, the Proposed Project will not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. As demonstrated in **Section IV, Biological Resources** and **Section V, Cultural Resources** in this IS/MND, the Proposed Project will not result in substantial adverse effects on biological and cultural resources.
- b. **Less Than Significant Impact.** The Proposed Project will improve bridge operations at an existing bridge. The Proposed Project will contribute air emissions and noise to the project area during short-term, temporary, project construction related activities. For the environmental issues where the Proposed Project could potentially contribute to a cumulatively considerable impact, such as air and noise, a specific analysis of the potential for cumulative impacts has been included in the discussion. In addition, the Proposed Project will not induce growth that would promote cumulative impacts. Therefore, project impacts will be less than significant.

- c. **Less Than Significant Impact.** The Proposed Project will improve bridge operations at an existing bridge that is a common urban use. Based on the preceding analysis, the Proposed Project will not have adverse environmental effects that will directly or indirectly affect human beings. The Proposed Project will generate limited air emissions, noise, and other effects on human beings during short-term, temporary, project construction related activities. However, as demonstrated in this document, the Proposed Project will not result in any substantial adverse effects that cannot be mitigated to less than significant levels.

## **5.0 PERSONS AND SOURCES CONSULTED**

The following agencies, firms and individuals were involved in the preparation of this Initial Study:

### **5.1 LEAD AGENCY**

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