RECIRCULATED
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

STATE CLEARINGHOUSE NO. 2018031021

TEMESCAL CANYON ROAD BRIDGE AND ROAD REALIGNMENT PROJECT

CITY OF LAKE ELSINORE

RIVERSIDE COUNTY, CALIFORNIA

LSA

May 7, 2018

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CITY OF LAKE ELSINORE

RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

City of Lake Elsinore
130 South Main St.
Lake Elsinore, California 92530
(951) 674-3124

Prepared by:

LSA Associates, Inc.
1500 Iowa Avenue, Suite 200
Riverside, California 92507
(951) 781-9310

LSA Project No. ACN1401

LSA

May 7, 2018

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B Air Quality Report

C Natural Environmental Study (Biological Resources)

D Archaeological Study Report and Historic Property Survey Report

E-1 Preliminary Geotechnical Report

E-2 Preliminary Geotechnical Report Supplemental Memo

F-1 Initial Site Assessment (Hazardous Materials)

F-2 Aerially Deposited Lead (ADL) Investigation

F-3 Yellow Paint and Thermoplastic Traffic Striping

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1.0 INTRODUCTION

1.1 BACKGROUND

An Initial Study was prepared for the Temescal Canyon Road Bridge and Road Realignment Project "proposed project" by the **City of Lake Elsinore** (City) and was distributed for a 30-day public review from March 9, 2018 through April 9, 2018 (State Clearinghouse No. 2018031021). The California Department of Fish and Wildlife requested more time to comment on the Initial Study and was given until April 12, 2018 to provide the City comments. Six comment letters were received by the City on the Initial Study. The comments received regarding the project and the responses to comments are included in this document as Appendix L.

As a result of agency comments made on the March 2018 Initial Study by the South Coast Air Quality Management District and the California Department of Fish and Wildlife (CDFW) changes were made to the analysis in the Initial Study and it was determined that mitigation measures needed to be added to air quality, hydrology, and biological resources to address the agencies' concerns. The City also met with representatives of the CDFW on April 25, 2018 to discuss their comments on the March 2018 Initial Study. During that meeting the CDFW requested the Initial Study be recirculated to give the public the opportunity to review the additional analysis and mitigation measures. The City concurred and as a result the Initial Study is being recirculated for a 30-day public review prior to the City decision-makers adopting a Mitigated Negative Declaration for the proposed project.

To clarify a potential discrepancy in the project description (375 foot length of the bridge) in the March 2018 Initial Study and the length of the bridge (306 feet) in technical studies provided in the Appendices, the project footprint analyzed for the longer bridge has not changed. The only change from the description of the project in the technical studies and the March 2018 Initial Study and this Recirculated Initial Study are 1) the bridge is longer (375 feet vs. 306 feet); and 2) the roadway had been shortened to accommodate the lengthening of the bridge. The bridge was lengthened to span Temescal Creek with a bridge that would minimize impacts on hydrology, grading, and biological resources. The studies for biological resources, cultural resources, and hazardous materials evaluated an area that is larger than the proposed project footprint so it was not necessary to amend those studies. In addition the traffic, air quality, noise, and water quality reports were not affected by the longer bridge because the project footprint has not changed.

Additional information provided in the Appendices includes analyses related to channel grading and hydrology (Appendices H). A new Figure 4 was added to the Initial Study to show the preliminary grading in the channel.

In Summary the flowing changes were made in this Recirculated Initial Study:

- Project description was expanded to describe the channel grading, bridge construction method, and maintenance access;
- Additional mitigation measures were added to CEQA Checklist Section 2 Air Quality at the request of the South Coast Air Quality Management District;
- Additional mitigation measures were added to CEQA Checklist Section 3 Biological Resources addressing bats and nesting birds;
- Additional analysis and mitigation were added to the CEQA Checklist Section 9 Hydrology and Water Quality addressing groundwater dewatering and sediment transport;
- Figure 4 was added showing preliminary channel grading;

- Appendix E was amended to add a supplemental memo from the preparers of the Preliminary Geotechnical Study;
- Appendix H-1 was added to include the Floodplain and Bridge Hydraulics and Scour Study Report; and
- Appendix H-2: was added to include the Supplemental Floodplain Study and Bridge Hydraulics and Scour Study Report.

1.2 PURPOSE AND SCOPE

In accordance with CEQA Guidelines Section 15073.5

a) A lead agency is required to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has previously been given …., but prior to its adoption."

(b) A "substantial revision" of the negative declaration shall mean:

(1) A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or

(2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.

This Recirculated Initial Study addresses the same footprint of the bridge and roadway as was analyzed in the March 2018 Initial Study. The only changes that were made between the March 2018 Initial Study and the Recirculated Initial Study are providing additional information in the project description, adding mitigation in the air quality, hydrology and biological resources sections and expanding the analysis from that in the March 2018 Initial Study for those environmental topics.

This Initial Study has evaluated each of the issues contained in the checklist provided in Section 3.0 of this document. The objective of this environmental document is to inform the City of Lake Elsinore decision-makers, representatives of other affected/responsible agencies, and other interested parties of the potential environmental effects that may be associated with the proposed project. This Initial Study serves as the environmental review of the proposed project, as required pursuant to the provisions of the California Environmental Quality Act (CEQA), Public Resources Code 21000, et seq. and the State and local CEQA Guidelines. The Initial Study was prepared to identify whether the proposed project shall produce significant environmental effects.

If an Initial Study prepared for a proposed project determines that no significant effects on the environment shall occur or significant impacts can be reduced to less than significant with implementation of mitigation, the Lead Agency can prepare a Negative Declaration or a Mitigated Negative Declaration pursuant to CEQA Guidelines, Sections 15070–15075 et seq. A (Mitigated) Negative Declaration is a statement by the Lead Agency attesting that a project shall produce less than significant impacts or significant impacts that can be reduced to less than significant with mitigation.

If an Initial Study prepared for a proposed project determines it may produce significant effects on the environment, an Environmental Impact Report (EIR) shall be prepared. This further environmental review is required to address the significant environmental effects of the project and provide

mitigation where feasible.

Pursuant to the provisions of CEQA and the State and local CEQA Guidelines, the **City of Lake Elsinore** is the Lead Agency, and is charged with the responsibility of deciding whether or not to approve the proposed project.

1.3 FINDINGS OF THIS INITIAL STUDY

Pursuant to CEQA and *State CEQA Guidelines*, this Initial Study has been prepared in order to determine whether implementation of the proposed project shall result in significant environmental impacts, which would require the preparation of an EIR.

This Initial Study is based on an Environmental Checklist Form (Form), as suggested in Section 15063 (d)(3) of the *State CEQA Guidelines*. The Form is found in Section 3.1 of this Initial Study. It contains a series of questions about the proposed project for each of the listed areas. The Form is used to evaluate whether or not there are any significant environmental effects associated with implementation of the proposed project.

Following the Form in Section 3.2 is an explanation for each answer on the Form. The Form and accompanying evaluation of the responses provide the information and analysis upon which the City of Lake Elsinore may make its determination as to whether or not an EIR may be required for the project. The Form is used to review the potential environmental effects of the proposed project for each of the following areas:

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

1.4 CONTACT PERSON

The Lead Agency for the Initial Study for the proposed project is the City of Lake Elsinore. Any questions about the preparation of this Initial Study, its assumptions, or its conclusions should be referred to the following:

Richard MacHott, LEED Green Associate, Planning Manager
City of Lake Elsinore
130 S. Main Street
Lake Elsinore, California 82530
(951) 674-3124 ext. 245

2.0 `PROJECT DESCRIPTION

2.1 PROJECT SITE SETTING

The proposed project site is located in the northwest portion of the City of Lake Elsinore in Riverside County. The project site is located on Temescal Canyon Road, about 300 feet south of Interstate 15 (I-15), and 0.22 mile west of Lake Street at the Temescal Wash crossing (Figures 1, 2, and 3). Figure 1 illustrates the location of the proposed project.

2.2 PROJECT BACKGROUND

The original Temescal Canyon Road bridge structure, built in 1924, is a concrete T beam bridge, approximately 66 feet long and 23 feet wide, over Temescal Wash. The existing bridge has been rated as "Functionally Obsolete" according to FHWA criteria, with a low Sufficiency Rating (SR) of 68.5[1]. The bridge is considerably undersized and causes flood waters to backup and overtop the bridge deck and its roadway approaches, causing frequent road closures. Constructing a new bridge has been proposed to eliminate these issues and to provide adequate channel cross-section and freeboard to convey 100-year flood waters. The roadway is being realigned to provide adequate distance from the Lake Street/I-15 Interchange to where Temescal Canyon Road intersects with Lake Street. In addition, the location of the roadway is consistent with the City's General Plan and the Alberhill Villages Specific Plan (AVSP).

2.3 PROJECT DESCRIPTION

The City of Lake Elsinore (City), in coordination with the California Department of Transportation (Caltrans), is proposing to construct a new bridge over Temescal Wash in the City of Lake Elsinore, California.

There are two segments to the project which are as follows (refer to Figure 2):

- **Segment A** includes the segment of roadway from 200 feet north of the proposed 375 foot long bridge to connect to the existing 2- lane Temescal Canyon Road. The 649-foot roadway transition from the bridge to the existing 2-lane Temescal Canyon Road would be built using local funds.
- **Segment B** includes the 4-lane, 375 foot long bridge and approximately 200 feet of the roadway, northwest of the bridge and 130 feet southeast of the bridge to be constructed using HBP (federal) and local funding.

The new bridge will connect to a 696-foot long realigned roadway that will extend from 200 feet south of the proposed bridge to Lake Street approximately 180 feet south of current intersection of Temescal Road and Lake Street. The proposed bridge is 98-feet wide (with a curb-to-curb width of 80 feet), 375 feet long, and a structure depth of 5 feet at the abutments that will taper to 7.25 feet near the pier/bent. The bridge will be striped with a 14-foot painted median, two 12-foot inside lanes, two 15-foot outside lanes, two 6-foot shoulders that can accommodate a Class II bike lane, and two 6-foot sidewalks separated from vehicular traffic with a concrete barrier, which is necessary due to a posted speed limit greater than 45 miles per hour (MPH).

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[1] California Department of Transportation. 2016. "Structure Maintenance and Investigations" October, 2016.

The entire realigned roadway including the roadway from the bridge to Lake Street going southeast was the subject of a separate CEQA document approved by the City of Lake Elsinore as part of the Alberhill Villages Specific Plan (AVSP) in February 2017 (SCH No. 2012061046) and it conforms to the City's standard for a "Major Highway" with a right-of-way width of 100 feet. The ultimate standard roadway section would consist of a painted 14-foot median, two 12-foot inside lanes, two 15-foot outside lanes, two 6-foot shoulders, and two 10-foot parkways that can accommodate a 6-foot wide sidewalk.

As previously stated, the proposed bridge is on a new roadway alignment. In the interim, the existing roadway northwest of the relocated bridge and the new roadway southeast of the relocated bridge would be two lanes (one lane in each direction). In the future, both segments of the roadway would be widened to four lanes.

The area to be potentially affected by the project includes properties within the AVSP in the City of Lake Elsinore. The project would require the permanent acquisition of new right-of-way for roadway and habitat restoration, as well as, temporary construction easements, and permanent easements for drainage. Since the proposed bridge is not located in an existing roadway, it would not require relocation of existing utilities (water, sewer, cable, telephone, gas, electric utilities, etc.). However, the bridge sidewalk and deck would include utility openings to accommodate future utilities.

The project would include drainage improvements within Temescal Wash. Activities would include minor regrading of the creek near the bridge and construction of concrete slope protection, cutoff wall, and riprap launch pad to protect the bridge abutments from scour. A 478-foot segment of the existing low-flow channel would be relocated to convey low flows through the proposed bridge. The relocated low-flow channel would extend approximately 100 feet downstream of the proposed bridge. It would also extend approximately 250 feet upstream of the proposed bridge. The approximate total construction area of the project is 6.27 acres with an impervious area of approximately 3.0 acres (proposed roadway pavement, bridge, and concrete slope protection near the bridge abutment). In contrast, the impervious area (roadway pavement and bridge) of the existing Temescal Canyon Road is approximately 1.8 acres.

Channel Grading: As shown on the channel grading plan (Figure 4), the grading area of Temescal Wash will consist of approximately 2.66 acres. The average length and width of channel excavation limits are 420 feet and 300 feet, respectively. The excavation depths (or "cut") are depicted at the following locations as shown on the attached grading plan:

1. Upstream segment of the graded channel near Section D-D – excavation depths vary from 1.5' to 4.5' with depths in most areas of the main channel ranging from 1.5' to 3.5'.
2. Immediately upstream of the bridge – excavation depths vary from 2' to 5' with depths in most areas of the main channel ranging from 2' to 4'.
3. Immediately downstream of the bridge – excavation depths vary from 2' to 6' with depths in most areas of the main channel ranging from 2' to 4'.
4. Downstream segment of the graded channel between Sections A-A and B-B – excavation depths vary from 1.5' to 7.5'. If the local and isolated ridgeline that was constructed by PacClay is not considered (red shaded area), the excavation depths will be shallower, ranging from 1.5' to 4.5'.

The excavation depth in the lowest elevation of the main channel is approximately 2' deep (blue shaded area on Figure 4).

Low-flow Channel: As result of the proposed grading and location of the proposed bridge columns, a 478-foot segment of the existing low flow channel (404 Jurisdictional Delineation) will be impacted. The impacted segment will be relocated to convey low flows through the proposed bridge. The relocated low-flow channel will extend approximately 100 feet downstream of the proposed bridge. It will also extend approximately 250 feet upstream of the proposed bridge. The bottom of the low-flow channel is approximately 18 feet wide while the top of bank is approximately 55 feet wide. The depth of the channel varies from 1 foot to 1.2 feet. The relocated low-flow channel will be restored to replicate the bio-resource of the existing low-flow channel.

Bridge Construction Techniques: The proposed bridge is a Cast-In-Place (CIP) Pre-Stressed Concrete Box Girder structure, which is the most cost-effective structure type for a nominal span length in the range of 100 to 200 feet in California. CIP Concrete Box Girder structures require very little maintenance. The only major long-term maintenance work involves sealing the concrete bridge deck and replacing the expansion joint rubber material every 10 to 20 years. The maintenance work is done on the bridge deck without entering the channel bottom.

The proposed bridge will be supported by two piers in the channel and two abutments, one at the beginning and one at the end of the structure. The pier columns and abutments will be supported by driven steel piles. The abutment footings will be placed in the approach embankments. The slopes under the bride will be protected from scour and erosion by a concrete lining on the surface of the embankment.

Construction of the pier footings require shoring around the footing area for excavation to reach the level that pile driving will commence. Prior to excavation inside the shoring, temporary dewatering will be performed to lower the local ground water level (just within the shoring enclosure) until the excavation is completed, steel piles are installed, and a layer of concrete seal course is placed below the footing. The purpose of the seal course is to make the excavated area water tight in order to construct the reinforced concrete pile cap and the piers. The temporary dewatering at each pier will last approximately 6 weeks. Temporary dewatering at the abutments is not required as the footings are placed above the graded channel bottom.

The cast-in-place construction method to build the superstructure girder will require installation of temporary falsework in the channel. The falsework support generally consists of temporary timber columns or temporary steel pipe bents. The contractor has the responsibility to design and erect the falsework to maintain a proper storm flow conveyance capacity as mandated by the contract specifications. Falsework in the channel can be removed approximately 6 months after its installation.

Equipment needed to construct the bridge will consist of crane, pile driver, bulldozer, excavator, compactor, and loader.

The construction of the bridge and road realignment would also include the following:

Staging Area: The staging area for the contractor must be of a size and proximity that can accommodate the storing of false work beams and materials if they cannot be stored in the wash. Beams must be carried in using forklifts or flatbed trucks and lifted with a crane. Potential staging areas have been identified and shall be designated in the plans. The parcels in the northeast corner and northwest corners have been earmarked for contractor's staging areas.

Access: The project site has adequate clearances and access roads for construction of the replacement bridge. A temporary construction easement (TCE) would be required for the duration of construction. Permanent access to the channel bottom is not needed since the long term maintenance can take place from the bridge deck.

Detours: Because the construction would occur in stages, the existing roadway and bridge shall remain open to the public during the duration of construction. Detouring of traffic is not required.

2.4 PROJECT APPROVALS

The following approvals and permits would be required for the project to move forward:

- Riverside Conservation Authority Western Riverside County MSHCP Consistency Determination and Joint Project Review
- U.S. Army Corps of Engineers: Section 404 Permit
- California Regional Water Quality Control Board: Water Quality Certification Section 401 Permit
- California Regional Water Quality Control Board: Statewide Construction Activity General Permit
- California Department of Fish and Game: Section 1602 Streambed Alteration Permit
- Riverside County Flood Control District: Encroachment Permit
- City of Lake Elsinore, City Council: Approval of Mitigated Negative Declaration

2.5 DOCUMENTS INCORPORATED BY REFERENCE

Various technical reports have been prepared to assess specific issues that may result from the construction and operation of the proposed project. As relevant, information from these technical reports has been incorporated into the Initial Study. The following technical reports (provided as PDF files on the accompanying CD-ROM) are included as appendices to this Initial Study:

- Appendix A: Bridge Aesthetics, David Evans and Associates, Inc.
- Appendix B: Air Quality Report, LSA Associates, Inc. September 29, 2017
- Appendix C: Natural Environmental Study (Biological Resources), LSA Associates, Inc., March 5, 2018
- Appendix D: Archeological Study Report and Historic Property Survey Report, LSA Associates, Inc., November 13, 2017
- Appendix E-1: District Preliminary Geotechnical Report, Group Delta Consultants, Inc., April 4, 2016, and Supplemental Memo dated Dec 21, 2017.
- Appendix E-2: District Preliminary Geotechnical Report Supplemental Memo, Group Delta Consultants, Inc., December 21, 2017.
- Appendix F-1: Initial Site Assessment (Hazardous Materials), Group Delta Consultants, Inc. April 18, 2016.
- Appendix F-2: Aerially Deposited Lead (ADL) Investigation Temescal Canyon Road Over Temescal Wash Bridge Replacement Project. Group Delta Consultants, Inc., March 18, 2016
- Appendix F-3: Yellow Paint and Thermoplastic Traffic Striping. Group Delta Consultants, Inc., March 18, 2016
- Appendix G: Water Quality Assessment Report, Aguilar Engineering, Inc. November 30, 2016
- Appendix H-1: Floodplain and Bridge Hydraulics and Scour Study Report, Aguilar Engineering, Inc., November 14, 2017

- Appendix H-2: Supplemental Floodplain Study and Bridge Hydraulics and Scour Study Report, Aguilar Engineering, Inc., March 23, 2018
- Appendix I: Noise Screening Analysis, LSA Associates, Inc., August 2017
- Appendix J: Revised Traffic Assessment Memorandum, Linscott, Law and Greenspan, May 5, 2017
- Appendix K: Comment Letters and Responses on the Original Initial Study, March 2018.

These reports/studies/letters are available for review at:

City of Lake Elsinore
Planning Division
130 S. Main Street
Lake Elsinore, California 82530

Hours: Mon-Thurs: 8 a.m. - 5 p.m.
Friday: 8 a.m. - 4 p.m.
Closed Holidays

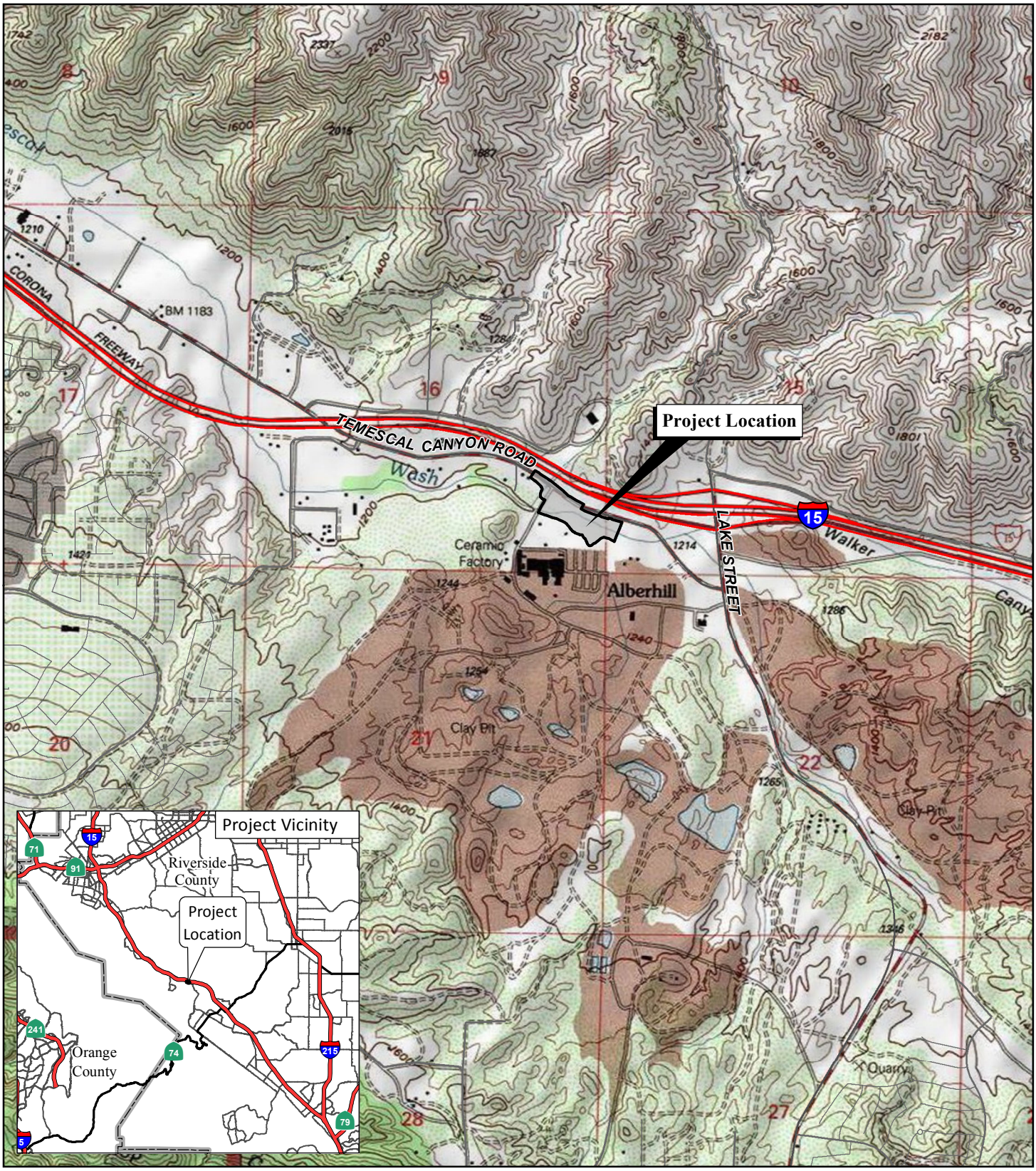

FIGURE 1

N

0 1000 2000
FEET

Temescal Canyon Road Bridge Replacement and Road Realignment Project
Initial Study/Mitigated Negative Declaration

Regional Location

SOURCE: USGS 7.5' Quad: Alberhill, 1988; Riverside County, 2015.

BRLS 5074 (015)

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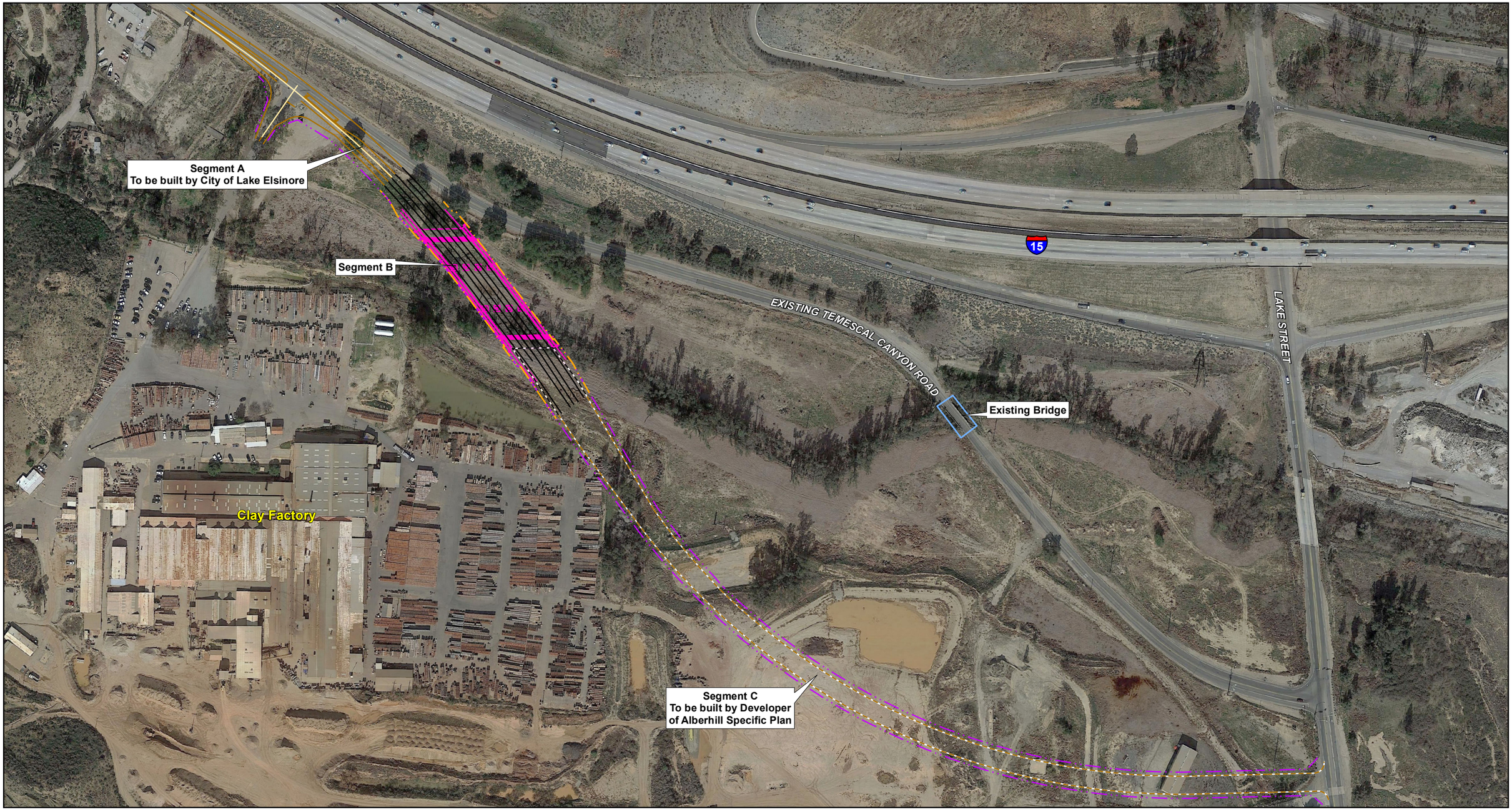

Bridge Structure
Edge of Pavement
Proposed ROW
Striping

Adjacent Temescal Canyon Road Realignment to be Built by Others

Edge of Pavement
Proposed ROW
Centerline, Segment A
Striping, Segment A

N

0 115 230
FEET

Source: Google Earth, 2016; Riverside County, 2015; Aguilar Consulting, 2016.

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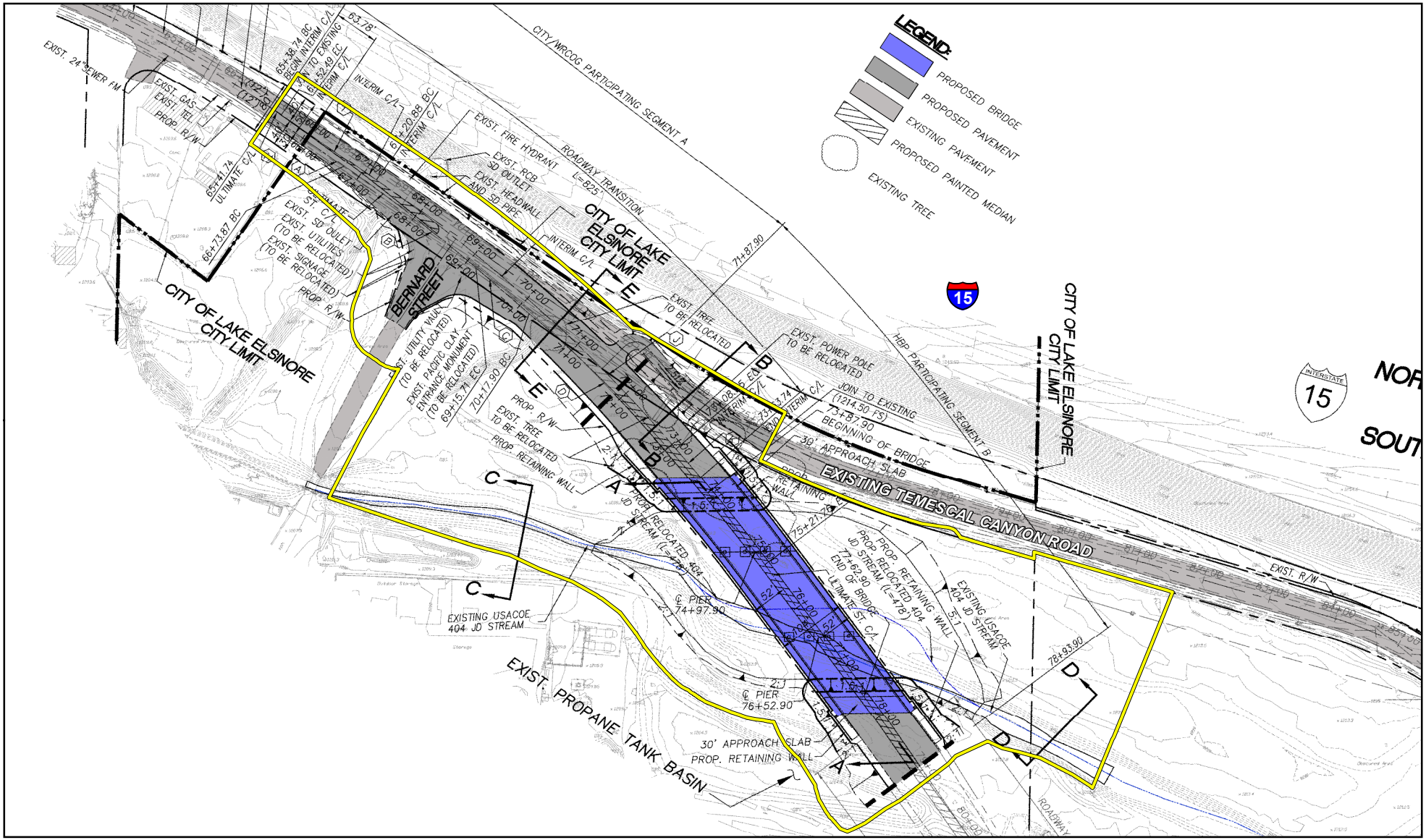
FIGURE 2

Temescal Canyon Road Bridge Replacement and Road Realignment Project
Initial Study/Mitigated Negative Declaration

Project Vicinity

BRLS 5074 (015)



Biological Study Area (BSA)

FIGURE 3

Temescal Canyon Road Bridge Replacement and Road Realignment Project
Initial Study/Mitigated Negative Declaration

Site Plan

BRLS 5074 (015)

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SOURCE: Google Earth, 2016; Aguilar Consulting, 2018.

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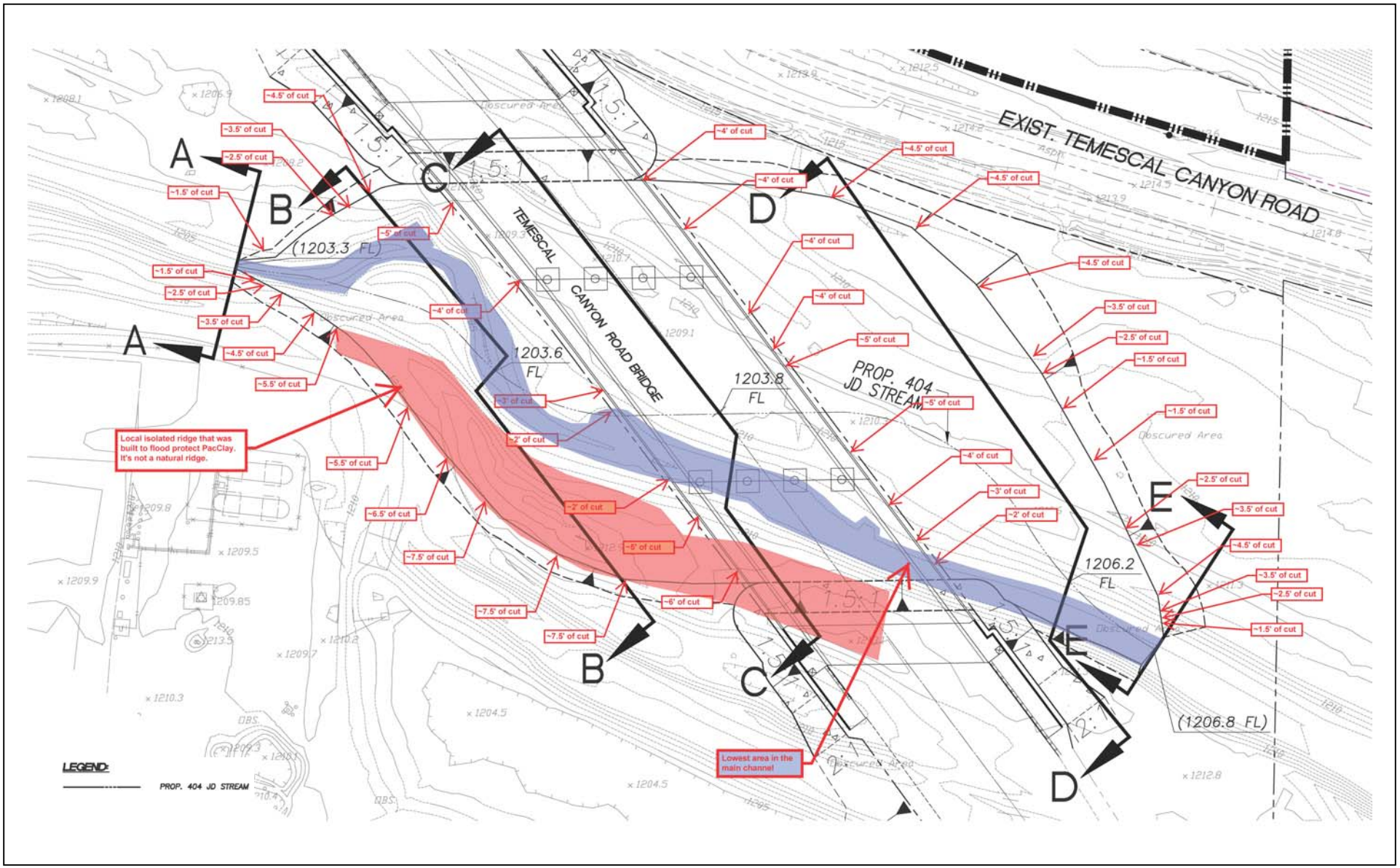

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FIGURE 4
(Page 1 of 2)

Temescal Canyon Road Bridge Replacement and Road Realignment Project

Preliminary Channel Grading

BRLS 5074 (015)

N

0 45 90
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SOURCE: Agular Consulting, Inc.

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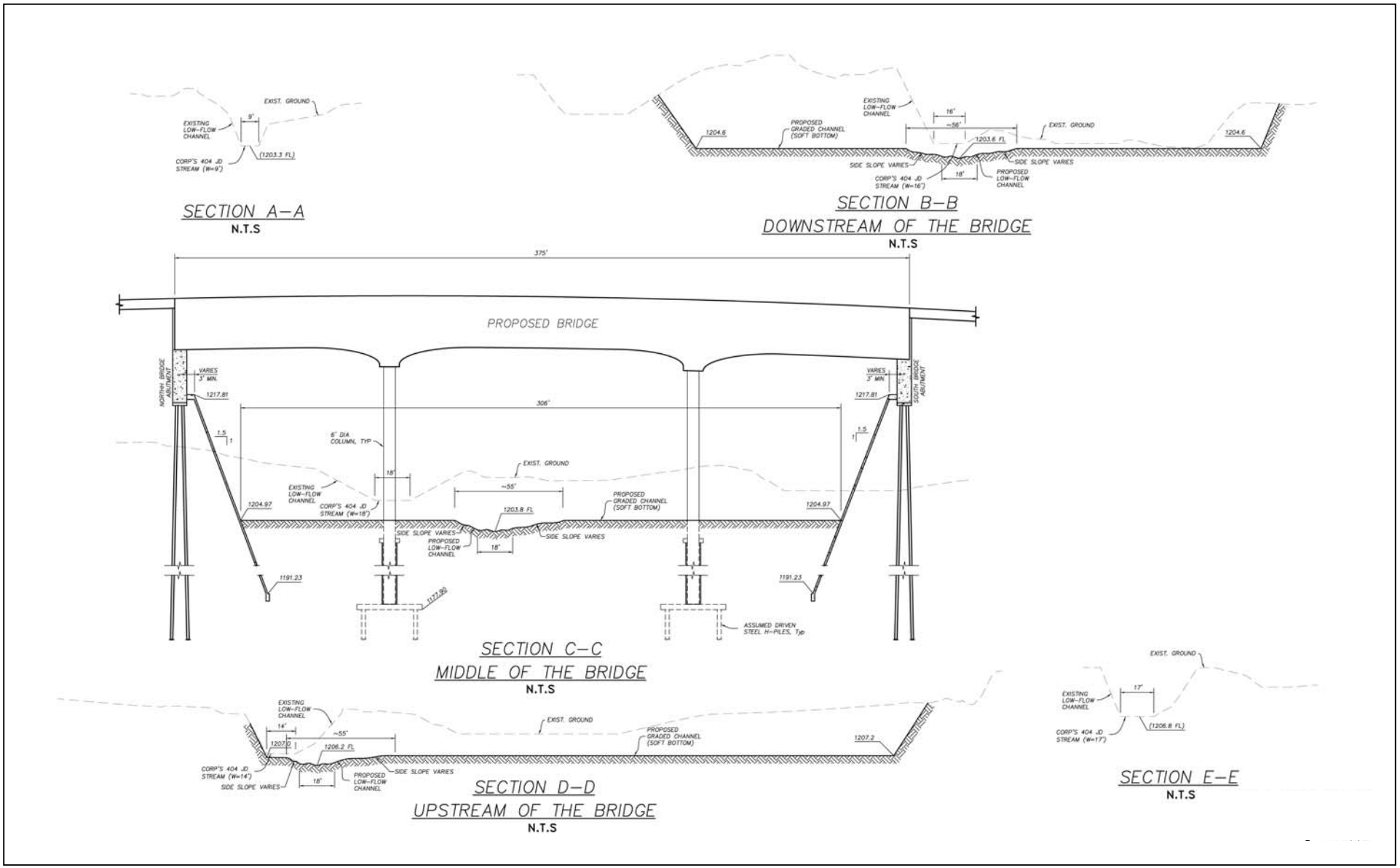

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FIGURE 4
(Page 2 of 2)

Temescal Canyon Road Bridge Replacement and Road Realignment Project

Preliminary Channel Grading Cross Sections

BRLS 5074 (015)

NO SCALE

SOURCE: Agular Consulting, Inc.

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3.0 ENVIRONMENTAL CHECKLIST

3.1 ENVIRONMENTAL CHECKLIST FORM

Background

Project Title: Temescal Canyon Road Bridge Project

Lead Agency Name and Address: City of Lake Elsinore
130 S. Main Street
Lake Elsinore, California 82530

Contact Person and Phone Number: Richard J. MacHott, LEED Green Associate,
Planning Manager
(951) 674-3124, Ext. 209

Project Location: City of Lake Elsinore, on Temescal Canyon Road at Temescal Canyon Road, 0.22 mile west of Lake Street, and 300 feet south of I-15.

Project Sponsor's Name and Address: City of Lake Elsinore
130 S. Main Street
Lake Elsinore, California 82530
Contact Person: Ati Eskandari, Project Manager
(949) 221-8669

General Plan Designation: Adopted Specific Plan, Major Roadway

Zoning: SP (Alberhill Villages Specific Plan: Temescal Canyon Road, Open Space, Mixed Use/Office/Medical, Mixed Use/Regional Commercial).

Description of Project: The proposed project is the replacement of a bridge over Temescal Wash with a new four-lane bridge structure. The proposed project would also include the realignment of the approaching roadways, and the extension, relocation, and/or modification of drainage features.

Surrounding Land Uses and Setting: The proposed project is in an industrial area of the City of Lake Elsinore. To the west of the project site there are existing commercial mixed uses. To the south and east of the project, there are mining and aggregate production operations. To north, the project site is bounded by I-15 freeway.

Other Public Agencies Whose Approval Is Required:

- Riverside Conservation Authority Western Riverside County MSHCP Consistency Determination and Joint Project Review
- U.S. Army Corps of Engineers: Section 404 Permit
- California Regional Water Quality Control Board: Water Quality Certification Section 401 Permit
- California Regional Water Quality Control Board: Statewide Construction Activity General Permit
- California Department of Fish and Game: Section 1602 Streambed Alteration Permit
- Riverside County Flood Control District: Encroachment Permit
- City of Lake Elsinore, City Council Approval of Mitigated Negative Declaration

`Environmental Factors Potentially Affected

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

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

Determination (To Be Completed By the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION shall be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there shall not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION shall be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Lynn Calvert-Hayes for

Signature

May 7, 2018
Date

Richard McHott, Planning Manager

Printed Name and Title

City of Lake Elsinore
Lead Agency

Evaluation of Environmental Impacts

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

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	■	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway or local scenic expressway, scenic highway, or eligible scenic highway?	☐	☐	☐	■
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	■	☐
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐
2. AGRICULTURAL AND FOREST 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 Mode (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiles 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?	☐	☐	☐	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Public Resources Code Section 51104(g)?	☐	☐	☐	■
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	■

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	■
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	■	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	■	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	■	☐
4. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	■	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	■	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	■	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	☐	■	☐	☐

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	☐	■	☐	☐
5. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5 of the CEQA Guidelines?	☐	☐	■	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5 of the CEQA Guidelines?	☐	☐	■	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	■	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	■	☐	☐
6. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	■
ii) Strong seismic ground shaking?	☐	■	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	■	☐	☐
iv) Landslides?	☐	☐	■	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	■	☐
d) Be located on expansive soil, as defined by Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	■	☐	☐
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?	☐	☐	☐	■

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
7. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emission, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gases?	☐	☐	■	☐
8. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?	☐	☐	☐	■
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	■	☐
e) For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
f) For a project located within the vicinity of a private airstrip, heliport, or helistop, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	■	☐
9. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	■	☐	☐

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 (e.g., 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)?	☐	■	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on site or off site?	☐	■	☐	☐
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 site or off site?	☐	☐	■	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of pollutant runoff?	☐	☐	■	☐
f) Otherwise substantially degrade water quality?	☐	☐	■	☐
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	■
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	■	☐
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?	☐	☐	■	☐
j) Expose people or structures to inundation by seiche or mudflow?	☐	☐	■	☐
10. LAND USE AND PLANNING: Would the project				
a) Physically divide an established community?	☐	☐	☐	■
b) Conflict with any applicable land use plan, policy, or regulation of any 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?	☐	☐	☐	■
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	■	☐	☐

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
11. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	■	☐
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?	☐	☐	■	☐
12. NOISE: 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?	☐	■	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	■	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	■	☐	☐
e) For a project located within an airport land use plan, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, heliport or helistop, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■
13. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?	☐	☐	☐	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
14. 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?	☐	☐	☐	■
b) Police protection?	☐	☐	☐	■
c) Schools?	☐	☐	☐	■
d) Parks?	☐	☐	☐	■
e) Other public facilities?	☐	☐	☐	■
15. RECREATION: Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	■
16. TRANSPORTATION AND TRAFFIC: Would the project:				
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?	☐	☐	■	☐
b) Conflict with an applicable congestion management program, including not limited to a level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	■
c) Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial safety risks?	☐	☐	☐	■
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	☐	☐	■	☐
e) Result in inadequate emergency access?	☐	☐	■	☐

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	■
17. Tribal Cultural Resources: Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k), or	☐	■	☐	☐
ii) A resource determined by the lead agency in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the Lead agency would consider the significance of the resource to a California Native American tribe.	☐	■	☐	☐
18. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	■
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?	☐	☐	☐	■
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
d) Have sufficient water supplies available to serve the project (including large scale developments as defined by Public Resources Code Section 21151.9 and described in Question No. 20 of the Environmental Checklist) from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	■

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	■
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	■
g) Comply with Federal, State, and local statutes and regulations related to solid waste?	☐	☐	☐	■
19. MANDATORY FINDINGS OF SIGNIFICANCE				
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?	☐	■	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	■	☐
c. Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	■	☐

3.2 ENVIRONMENTAL ANALYSIS

This section is intended to provide evidence to substantiate the conclusions set forth in the Environmental Checklist. The section discusses whether or not the proposed roadway and bridge (proposed project) is consistent with the existing General Plan policies and conclusions.

1. AESTHETICS

Bridge aesthetics were prepared by a licensed architect for the proposed project and are found in Appendix A of this Initial Study. The analysis in this section is based on those aesthetic renderings.

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The proposed project would be built on a proposed roadway within the community of Alberhill, in the City of Lake Elsinore (City). The area surrounding the project site has very little urban-level development. The proposed project is in an area of existing commercial mixed use. The project is bounded by I-15 to the north, Pacific Aggregates, Inc. aggregate company to the south, Wyroc Materials concrete and asphalt recycling company to the east, and Pacific Clay Products, Inc. clay mining/processing to the west. Most of the surrounding area has been extensively mined.

According to the City's General Plan, scenic resources within the City include Cleveland National Forest, rugged hills, mountains, ridgelines, rocky outcroppings, streams, vacant lands with native vegetation, buildings of historical and cultural significance, parks, and trails[2]. The Santa Ana mountain range, which is part of the Cleveland National Forest, is visible to the southwest of the project site. In addition to these resources, the visual character of the City is dominated by Lake Elsinore, which can be seen from various areas throughout the City. The project site is not located in an area designated as a key public vantage point for the lake.

Appendix A includes a rendering of the city approved aesthetic treatment for the bridge which incorporates the clay mining (brick making) heritage of the area and represents an entry statement into the City. The project does not contain elements that would obstruct view to an extent that is any greater than in the existing condition. Structures associated with the bridge and roadway realignment are low and appear to be of similar elevation to the roadway on either side of the bridge. The construction of the new Temescal Canyon Road bridge and associated road realignment would not create a change in the overall visual character of the project site. Therefore, a less than significant impact related to this issue would occur and no mitigation is required.

b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The proposed project is not located along a state scenic highway and there are no state scenic highways located within the project vicinity. However, the I-15 freeway, from Corona to SR-76 in San Diego is "eligible for designation" as a State Scenic Highway[3]. While a portion of this freeway is in proximity of the project site, it is not officially designated. Therefore, no designated scenic highways are within the vicinity of the project site, no impact to an identified scenic resource would

[2] City of Lake Elsinore General Plan (2011). Chapter 4, Part 2: Resource Protection and Preservation, 4.8 Aesthetics. http://www.lake-elsinore.org/home/showdocument?id=7297 (Accessed 02/13/2017).

[3] California Scenic Highway Mapping System (2017). "Riverside County" http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm (Accessed 02/13/2017).

result from development of the proposed project, and no impact associated with this issue would occur. No mitigation is required.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact. Development of the proposed project would result in the replacement of the bridge on Temescal Canyon Road with a new four-lane bridge and the realignment of the approaching Temescal Canyon Road roadway. The proposed project would not substantially degrade the existing visual character of the site as the project consists of replacing an existing bridge with a similar structure that is modified to convey 100-year flood event waters. Further, the bridge and realignment of the Temescal Canyon Road roadway is consistent with the roadway improvements identified in the AVSP. Additionally, as discussed above in I.a), the project is immediately adjacent to industrial mining/processing operations, so is surrounded by an area that has been extensively mined.

Due to the industrial-related land uses and disturbed nature of the surrounding area, as well as the consistency of the proposed project with current structures, the project would not substantially degrade the existing visual character or quality of the site and its surroundings. A less than significant impact related to this issue would occur, and no mitigation is required.

d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Less Than Significant Impact. As discussed in the City's General Plan Aesthetics Element, light and glare in the City are of particular concern to the Palomar Mountain Observatory. The Palomar Lighting Impact Analysis Areas Map (General Plan, Figure 4.12) indicates that the project site is within the 45 mile radius of the facility, and could therefore cause secondary impacts to the observatory's research activities.

Lighting associated with the project, including the location of light fixtures and the direction of the light, will not adversely affect daytime or nighttime views in the area, and will comply with the City of Lake Elsinore Municipal Code (LEMC). All outdoor lighting fixtures in excess of 60 watts will be oriented and shielded to reduce glare or direct illumination onto adjacent properties or streets (LEMC Section 17.112.040)[4] Due to the proximity to the Palomar Mountain Observatory, the lighting fixtures shall comply with the City's street light fixture requirements by installing light-emitting diode (LED) lights that will not have an adverse impact upon the Palomar Mountain Observatory. Additionally, lighting fixtures will be carefully located, positioned, and shielded to minimize unwanted spillover and glare. With adherence to these standards, the lighting associated with the proposed project would have a less than significant impact and no mitigation is required.

[4] City of Lake Elsinore Municipal Code (2016). Chapter 17.112.40: "Nonresidential Development Standards, Lighting." http://www.codepublishing.com/CA/LakeElsinore/#!/LakeElsinore17/LakeElsinore17112.html#17.112.040 (Accessed 02/13/2017).

2. AGRICULTURAL RESOURCES

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 Resource Agency, to non-agricultural use?

***No Impact*.** The California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP), compiles Important Farmland maps pursuant to the provisions of Section 65570 of the California Government Code. These maps utilize data from the United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) soil survey, and current land use information using eight mapping categories and represent an inventory of agricultural resources within Riverside County. The maps depict currently urbanized lands and a qualitative sequence of agricultural designations. Maps and statistics are produced biannually using a process that integrates aerial photo interpretation, field mapping, a computerized mapping system, and public review. Mapping of county farmland categories is conducted every two years.

Based on the Riverside County Important Farmland Map 2014,[5] the FMMP designates the project site as "Farmland of Local Importance." The land adjacent to the proposed project is designated as "Urban and Built-Up Land" (land occupied by structures with a building density of at least one unit to each 1.5 acres or approximately 6 structures to a 10-acre parcel) and "Other Land" (land that does not meet the criteria of any other category). As no prime or unique farmland is located within or adjacent to the proposed project site, no conversion of or impact to prime or unique farmlands will occur. No mitigation is required.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. The subject property is zoned as SP (Alberhill Villages Specific Plan: Temescal Canyon Road, Open Space, Mixed Use/Office/Medical, Mixed Use/Regional Commercial) and there is no agricultural zoning within the City. Therefore, the project will not conflict with existing zoning for agricultural uses. Williamson Act[6] contracts restrict land development of contract lands. The contracts typically limit land use in contract lands to agriculture, recreation, and open space, unless otherwise stated in the contract. The property is not in the Williamson Act Conservation Contract database[7]. Because the project site is not part of a Williamson Act contract, no impacts associated with this issue are anticipated to occur with the development of the proposed project. No mitigation is required.

***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 Public Resources Code Section 51104(g)**.

No Impact. The subject property is zoned as SP (Alberhill Villages Specific Plan: Temescal Canyon Road, Open Space, Mixed Use/Office/Medical, Mixed Use/Regional Commercial)[8]. The City of Lake

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5 California Department of Conservation, Division of Land Resource Protection, 2016. Farmland Mapping and Monitoring Program, Riverside County Important Farmland 2014, Sheet 1 of 3. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2014/riv14_w.pdf (Accessed 02/13/2017).

6 The Williamson Act is a procedure authorized under state law to preserve agricultural lands as well as open space. Property owners entering into a Williamson Act contract receive a reduction in property taxes in return for agreeing to protect the land's open space or agricultural values.

7 ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Riverside_w_15_16_WA.pdf.

8 AVSP Comprehensive Land Use Plan (Figure 3-1).

Elsinore Zoning Map does not identify any parcels within the City limits zoned for forest land or timberland. While the project will require the permanent acquisition of new right-of-way, the bridge and roadway realignment is consistent with current use in the area. The proposed project will therefore not conflict with or cause rezoning of forest land or timberland, and no mitigation is required.

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

No Impact. As previously discussed, the project site has been extensively mined and is not currently zoned for forestland or timberland and is located within a commercial mixed use area according to the AVSP. Therefore, implementation of the proposed project would not result in the loss or conversion of forest land to a non-forest use, and no mitigation is required.

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?

No Impact. Please refer to responses 2a) and 2b). The proposed project site currently consists of an existing two-lane roadway, is designated as commercial mixed use, and has been extensively mined. The proposed bridge replacement, roadway realignment, and acquisition of right-of-way will therefore result in no impact with respect to conversion of agricultural lands to non-agricultural uses and no mitigation is required.

3. AIR QUALITY

The analysis in this section of the Initial Study is based on the following reports prepared for the project:

- Air Quality Report, Temescal Canyon Road Bridge Replacement Project, LSA Associates, Inc., September 29, 2017 (Appendix B of this Initial Study).

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. An AQMP describes air pollution control strategies to be taken by counties or regions classified as nonattainment areas. The AQMP's main purpose is to bring the area into compliance with the requirements of federal and State air quality standards. The AQMP uses the assumptions and projections by local planning agencies to determine control strategies for regional compliance status. Therefore, any projects causing a significant impact on air quality will impede the progress of the AQMP. For a project in the Basin to be consistent with the AQMP, the pollutants it emits must not exceed the SCAQMD significance threshold or cause a significant impact on air quality. If feasible mitigation measures can be implemented to reduce the project's impact level from significant to less than significant under CEQA, the project is considered to be consistent with the AQMP.Conformity determinations require the analysis of direct and indirect emissions associated with the proposed project and their comparison to the without project condition. If the total of direct and indirect emissions from the project reaches or exceeds the regionally significant thresholds, the Lead Agency must perform a conformity determination to demonstrate the positive conformity of the federal action.

The project is in the 2016 Regional Transportation Plan (RTP), which was found to be conforming by the FHWA/Federal Transit Administration (FTA) on June 1, 2016. The project is also in the 2015 Federal Transportation Improvement Program (FTIP), which was found to be conforming by the FHWA/FTA on December 15, 2014 (Project ID: RIV111203; Description: Bridge Replacement/Realignment: Replace Temescal Canyon Road two-lane bridge with a four-lane bridge over Temescal Wash). The Build Alternative is consistent with the scope of design concept of the FTIP. Therefore, the proposed project is in conformance with the State Implementation Plan (SIP). The project will also comply with all SCAQMD requirements. The 2016 RTP and 2017 FTIP listings are included in Appendix C of the Air Quality Report (Appendix B).

The proposed project will not substantially contribute to or cause deterioration of existing air quality; therefore, mitigation measures are not required for the long term operation of the project. Hence, the proposed project is considered to be consistent with the General Plans for the City of Lake Elsinore and the County of Riverside, as well as with the SCAG forecast, and is, therefore, consistent with the AQMP.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

***Less Than Significant With Mitigation Incorporated*.** Currently, the Basin is designated as a non-attainment area for ozone, PM_{10}, and $PM_{2.5}$. Construction of the project will contribute to air emissions on a short-term basis. Short-term emissions will result from construction activities, such as fugitive dust from grading/site preparation and equipment exhaust.

Construction. Construction would involve vegetation clearing, construction activities, and paving roadway surfaces. Construction-related effects on air quality from the bridge replacement and realignment project would be greatest during the site preparation phases because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. If not properly controlled, these activities would temporarily generate PM_{10}, $PM_{2.5}$, CO, SO_2, NO_X, and VOCs. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after drying. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, the silt content of soil, wind speed, and the amount of equipment operating at the time. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_X, VOCs, and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase while vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

SO_2 is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting federal standards can contain up to 5,000 parts per million (ppm) of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and ARB regulations, off-road diesel fuel used in California must meet the same sulfur and additional standards as on-road diesel fuel. Accordingly, SO_2-related issues due to diesel exhaust would be minimal.

The maximum amount of construction-related emissions during a peak construction day is presented in the table above (model data are provided in Appendix A). The PM10 and PM2.5 emissions assume a 50 percent control of fugitive dust as a result of watering and associated dust-control measures. The emissions presented in the table are based on information available at the time of calculations. The proposed project is anticipated to take approximately 16 months to construct beginning in 2019. Caltrans Standard Specifications for construction (Section 14-9.03 [Dust Control] and Section 14-9.02 [Air Pollution Control]) will be adhered to in order to reduce emissions generated by construction equipment. Additionally, the SCAQMD has established Rule 403 for reducing fugitive dust emissions. The best available control measures (BACM), as specified in SCAQMD Rule 403, shall be incorporated into the proposed project commitments. With the implementation of standard construction measures (providing 50 percent effectiveness) such as frequent watering (e.g., minimum twice per day) and **Mitigation Measures AIR-01 through AIR-07**, fugitive dust and exhaust

emissions from construction activities will reduce short-term air quality impacts to a less than significant level.

Table A: Construction Emissions

Construction Phase	Maximum Project Construction Emissions (lbs/day)				
	ROG	NOx	CO	Total PM_{10}	Total $PM_{2.5}$
Grubbing/Land Clearing	1.04	12.44	6.99	3.02	0.98
Grading/Excavation	6.96	78.77	44.18	6.17	3.83
Drainage/Utilities/Sub-Grade	5.18	50.34	38.03	5.31	3.13
Paving	1.55	21.56	14.08	1.01	0.82
Peak Daily	**6.96**	**78.77**	**44.18**	**6.17**	**3.83**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**55**
Significant Emissions?	**No**	**No**	**No**	**No**	**No**

Source: *Temescal Canyon Road Bridge Replacement and Road Realignment Air Quality Study*, LSA Associates, Inc., September 29, 2017.
CO = carbon monoxide
lbs/day = pounds per day
NOX = oxides of nitrogen
PM2.5 = particulate matter less than 2.5 microns in size
PM10 = particulate matter less than 10 microns in size
ROG = reactive organic gases

Mitigation Measures:

AIR-01 During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions will be controlled by regular watering or other dust preventive measures using the following procedures, as specified in the South Coast Air Quality Management District (SCAQMD) Rule 403. All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust. Watering will occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. All material transported on site or off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust. The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized so as to prevent excessive amounts of dust. These control techniques will be indicated in project specifications. Visible dust beyond the property line emanating from the project will be prevented to the maximum extent feasible.

AIR-02 Project grading plans will show the duration of construction. Ozone precursor emissions from construction equipment vehicles will be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications.

AIR-03 All trucks that are to haul excavated or graded material on site will comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4), as amended, regarding the prevention of such material spilling onto public streets and roads. The contractor shall provide periodic reporting documents to the City to prove and ensure compliance.

AIR-04 The contractor will adhere to the California Department of Transportation (Caltrans) Standard Specifications for Construction (Sections 14.9 02 and 14 9.03).

AIR-05 All construction vehicles both on and off site shall be prohibited from idling in excess of 5 minutes. This requirement shall be provided as a bid or contract specification with contractors.

AIR-06 Construction trucks shall use of 2010 model year diesel haul trucks that conform to 2010 U.S. EPA truck standards or newer diesel haul trucks (e.g., material delivery trucks and soil import/export) during construction. This requirement shall be provided as a bid or contract specification with contractors. The contractor shall provide periodic reporting documents to the City to prove and ensure compliance.

AIR-07 The contractor shall use Tier 4 emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower. This requirement shall be provided as a bid or contract specification with contractors.

Operations. **Operation.** The proposed project is not adding capacity to the roadway. Temescal Canyon Road is currently two lanes in the project area and will remain two lanes after the bridge is built. Long-term emissions will improve from the enhanced traffic flow due to the roadway improvements and the bridge being widened. Currently the bridge width does not accommodate two passing vehicles comfortably. The proposed project is not expected to generate any additional traffic and regional traffic trips will remain similar to what is projected. The proposed project will improve traffic movement in the project vicinity, thereby lowering the total pollutants emitted by vehicles crossing the bridge. In addition, the roadway and bridge were included in the EIR prepared and certified for the Alberhill Villages Specific Plan adopted by the City in February 2017. The EIR determined ROG, NOx, CO, and PM10 operational emissions for Phases 1, 2, and 4 are significant and unavoidable. In addition, the City adopted Findings and a Statement of Overriding Considerations stating the benefits of the Specific Plan outweigh the environmental impacts on air quality from the project.

The realignment of the roadway and bridge will take place during Phase I of the Because the proposed project will reduce rather than increase long-term air quality emissions, impacts related operational emissions are less than significant. Therefore, no mitigation is required for long-term emissions and no further analysis is needed.

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)?

Less Than Significant Impact. Currently, the Basin is in attainment/maintenance for federal CO and in a nonattainment area for federal PM_{10}, and $PM_{2.5}$ standards. Air pollution levels of the criteria air pollutants are monitored, or measured, by the applicable district at various locations throughout the Basin. While the future average daily traffic (ADT) stays the same without or with the project. There will be no change in the LOS therefore the project will not worsen air quality and a detailed CALINE4 CO hot-spot analysis was not required. Therefore, impacts associated with this issue are anticipated to be less than significant and no further discussion is required.

With respect to operational emissions that may contribute to exceeding State and federal standards, a CO and $PM_{2.5}$/PM_{10} screening analysis was performed (refer to Appendix B). The results of this analysis illustrate that localized levels will not violate air quality standards and, therefore, do not present an significant cumulative impact. In addition, due to the proposed project's relatively small scale, the contribution to the Basin air pollutant emissions is not cumulatively significant. Impacts associated with this issue are considered to be less than significant and no mitigation is required.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. Sensitive receptors are defined as populations that are more susceptible to the effects of pollution than the population at large. The SCAQMD identifies the following as sensitive receptors: long-term healthcare facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. Because emissions generated from the proposed project are below those identified by the SCAQMD and because there are no sensitive receptors adjacent to the project site, impacts related to this issue are anticipated to be less than significant and no further analysis is required.

e) Create objectionable odors affecting a substantial number of people?

***Less than Significant Impact*.** During construction, the various diesel-powered vehicles and equipment in use on the site may create odors from exhaust emissions. Additionally, the installation of asphalt may generate odors. These odors are temporary and not likely to be noticeable beyond the project boundaries. SCAQMD standards regarding the installation of asphalt surfaces are sufficient to reduce temporary odor impacts to a less than significant level. The proposed project is constructing a new four-lane bridge, which is not anticipated to generate long-term objectionable odors. Therefore, impacts related to creation of objectionable odors affecting substantial numbers of people will to be less than significant and no mitigation measures are required.

4. BIOLOGICAL RESOURCES

The analysis in this section of the Initial Study is based on the following reports prepared for the project:

- *Temescal Canyon Road Bridge Replacement Project Natural Environmental Study (NES),* LSA Associates, Inc., March 5, 2018 (Appendix C of this Initial Study)

The NES includes discussions of Biological Assessments, Special Status Plant Survey, Burrowing Owl Survey, Riparian Bird Survey, Jurisdictional Delineation, and Western Riverside County MSHCP Consistency Analysis.

On-site field investigations were conducted in 2015, 2016, and 2017 to identify vegetation communities, habitats for special-status species, potential jurisdictional waters, and other biological resource issues. Based on the literature review and initial field investigations, focused field surveys were completed as follows:

- Special status plants focused survey;
- Fairy shrimp habitat assessment;
- Burrowing owl habitat assessment and focused survey;
- Riparian birds focused survey; and
- Jurisdictional delineation.

a) Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

***Less Than Significant With Mitigation Incorporated*.** Based on the natural environment study (NES)[9] most animal species identified within Biological Study Area (BSA) are characteristic of those typically found in the interior portions of southern California. Eighteen State/federally listed species were evaluated for the proposed project including eight plant species and ten animal species. Habitat was present in the BSA for two of these listed species, least Bell' vireo and southwestern willow flycatcher. Four special status wildlife species have been reported as occurring in the BSA and 2 species have a potential to occur in the BSA.

Of the 50 non-listed special-status species identified in Table D in the NES (Appendix C), eight species were found to have potentially suitable habitat present within the BSA and four species (yellow warbler, orangethroat whiptail, coastal western whiptail, and San Diego black-tailed jackrabbit) were found to be present. A focused survey was also conducted for another of these species, burrowing owl, which is considered absent from the BSA.

Plants. Based on the results of a focused special status plant survey, no special-status plant species were found in the BSA. In addition, habitat in the BSA is considered unsuitable for these species due to disturbed habitat conditions. As a result, no project-related effects will occur to special-status plant species, and no mitigation measures are required.

Birds. The project site provides suitable avian nesting habitat. Focused surveys were conducted for the least Bell's vireo and southwestern willow flycatcher, which are both federally/State listed as endangered, and the burrowing owl, a California Species of Special Concern. All three of these bird species were determined to be absent. Vegetation removal should be conducted outside of the avian breeding season (February through August) to avoid impacts to nesting birds. If vegetation removal occurs during the bird breeding season, **Mitigation Measures BIO-01** through **BIO-07** will apply to reduce impacts associated with these species to a less than significant level.

Mitigation Measures:

BIO-01 Project construction and vegetation removal shall be completed outside of general bird breeding season (typically set as February 15 through August 31).

BIO-02 In the event that vegetation removal cannot be conducted outside the bird breeding season, focused surveys shall be conducted by a qualified biologist within three days prior to vegetation removal activities. Should nesting birds be found, an exclusionary buffer shall be established by a qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer shall be clearly marked in the field by construction personnel under guidance of the qualified biologist, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.

[9] Temescal Canyon Road Bridge Replacement Project Natural Environmental Study, LSA Associates, Inc., March 5, 2018 (Appendix C).

BIO-03 Prior to project construction activities, a pre-construction nesting bird survey will be conducted over the entire project site by a qualified biologist within three days prior to construction activities.

BIO-04 If nesting birds be found, an exclusionary buffer shall be established by a qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer shall be clearly marked in the field by construction personnel under guidance of the qualified biologist, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.

BIO-05 Nesting bird habitat within the construction footprint of the project shall be resurveyed during the general bird breeding season if there is a lapse in construction activities longer than seven days.

BIO-06 **Burrowing Owls.** Prior to the start of any vegetation removal or ground-disturbing activities, a pre-construction clearance survey for burrowing owls shall be conducted to ensure that burrowing owls remain absent, and impacts to any occupied burrows do not occur. In accordance with the *Staff Report on Burrowing Owl Mitigation,*[10] two pre-construction clearance surveys shall be conducted 14 days and 24 hours, respectively, prior to any vegetation removal or ground-disturbing activities. In the event this species is not identified onsite, no further mitigation is required. If during the pre-construction burrowing owl survey, this species is found to occupy the site, **Mitigation Measure BIO-07** shall be required.

BIO-07 In the event burrowing owls are identified during the survey periods, the City shall contact the California Department of Fish and Wildlife (CDFW) to develop a burrowing owl relocation and conservation strategy. Prior to ground-disturbing activities, the project applicant shall take the following actions:

- A minimum 75-meter (250-foot) buffer shall be provided around any active nest until fledging has occurred. Following fledging, owls may be passively relocated (use of one-way doors and collapse of burrows) by a qualified biologist.
- If impacts to occupied (non-nesting) burrows are unavoidable, onsite passive relocation techniques, as approved by the CDFW, may be employed to encourage owls to move to alternative burrows outside of the impact area.
- If relocation of the owls is approved for the site by the CDFW, the City shall require the developer to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan must include all of the following:
  - The location of the nest and owls proposed for relocation.
  - The location of the proposed relocation site.
  - The number of owls involved and the time of year when the relocation is proposed to take place.
  - The name and credentials of the biologist who shall be retained to supervise the relocation.

[10] *Staff Report on Burrowing Owl Mitigation*. State of California Natural Resources Agency, California Department of Fish and Game. March 2012.

- The proposed method of capture and transport for the owls to the new site.
- A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).
- A description of efforts and funding support proposed to monitor the relocation.

Reptiles. The orange-throated whiptail and have a moderate potential to occur on site due to suitable habitat. However, both of these reptile species are widespread in their distribution and were not observed on site during the general assessment, the focused mammal, and focused avian surveys. Although none of these species was observed, adherence to **Mitigation Measures BIO-06** through **BIO-10** will reduce impacts related to these species to a less than significant level.

BIO-08 Prior to clearing or construction, highly visible barriers (such as orange construction fencing) shall be installed along the boundaries of the project footprint. All construction equipment shall be operated in a manner to prevent accidental damage to areas outside the project footprint. No structure of any kind, or incidental storage of equipment or supplies, shall be allowed within these protected zones. Silt fence barriers shall be installed at the project boundary to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned grading activities.

BIO-09 All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities shall occur in developed or designated non-sensitive upland habitat areas. The designated upland areas shall be located in such a manner as to prevent any spill runoff from entering waters of the U.S.

BIO-10 A biologist shall monitor construction for the duration of the project construction to ensure that vegetation removal, Best Management Practices (BMPs), and all avoidance and minimization measures are properly constructed and followed.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. Vegetation within the BSA has been affected by current and past land use practices in the project area. Current land uses in the general area include I-15 and other roadway infrastructure, clay mining activities, and scattered commercial and rural residential development. A railroad also historically paralleled the north side of Temescal Wash within the BSA. Land cover within the BSA includes developed/disturbed, ruderal/nonnative grasslands, eucalyptus trees with scattered riparian vegetation, eucalyptus trees, and coast live oak woodland.

The BSA contains 0.90 acre of eucalyptus trees with scattered riparian vegetation in the eastern portion of the Temescal Wash. The eucalyptus trees with scattered riparian vegetation is dominated by eucalyptus trees with patches of arroyo shallow and mule fat. It is understood that eucalyptus trees are non-native and not a community of concern. The scattered riparian vegetation within this community is subject to the CDFW regulatory jurisdiction pursuant to Section 1602 of the California Fish and Game Code.

In addition to the implementation of **Mitigation Measures BIO-03** through **BIO-07** the following measures are recommended as a means of avoiding and minimizing adverse impacts to habitats and

natural communities of special concern that occur or have the potential to occur within the project footprint:

Mitigation Measures:

BIO-11 A weed abatement program shall be developed by the City of Lake Elsinore to minimize the importation of non-native plant material during and after construction. Eradication strategies shall be employed should an invasion occur.

BIO-12 The portions of the Temescal Wash affected by the project shall be recontoured to its original grades.

Invasive Species. Twenty-five exotic plants on the Cal-IPC Invasive Plant Inventory were identified as occurring in the BSA as shown in Table G in the NES. Each plant in the inventory is given an overall rating of high, moderate, or limited. Plants with a rating of high have severe ecological impacts. Plants with a rating of moderate have a substantial and apparent, but not severe, ecological impact. Plants with a limited rating are invasive but their ecological impacts are minor on a statewide level. Two plant species, Mediterranean tamarisk and foxtail chess, were identified in the BSA that have a high rating for ecological impacts. Implementation of **Mitigation Measures BIO-13 through BIO-22** will reduce impacts from invasive species to less than significant.

Mitigation Measures:

BIO-13 During construction, the construction contractor shall inspect and clean construction equipment at the beginning of each day and prior to transporting equipment from one project location to another.

BIO-14 During construction, soil and vegetation disturbance shall be minimized to the greatest extent feasible.

BIO-15 During construction, the construction contractor shall ensure that all active portions of the construction site are watered as necessary to prevent excessive amounts of dust.

BIO-16• During construction, soil, gravel, and rock shall be obtained from weed-free sources.

BIO-17 Only certified weed-free straw, mulch, and/or fiber rolls shall be used for erosion control.

BIO-18 After construction, affected areas adjacent to native vegetation shall be revegetated with plant species that are native to the vicinity as approved by the a qualified biologist

BIO-19 After construction, all revegetated areas shall avoid the use of species listed on Cal-IPC's California Invasive Plant Inventory that have a high or moderate rating.

BIO-20 Erosion control and/or revegetation sites shall be monitored after construction to detect and control the introduction/invasion of nonnative species. The monitoring period shall be determined in consultation with resource agencies.

BIO-21 Eradication procedures (e.g., spraying and/or hand weeding) shall be outlined should an infestation occur; the use of herbicides shall be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the a qualified biologist.

BIO-22 All woody invasive species (e.g., tamarisk and eucalyptus trees) shall be removed from the project limits.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant With Mitigation Incorporated. A jurisdictional delineation of the BSA was conducted and identified the presence of potential jurisdictional waters. As a result of the proposed grading and location of the proposed bridge columns, a 478-foot segment of the existing low flow channel (404 Jurisdictional Delineation) will be relocated to convey low flows through the proposed bridge. The relocated low-flow channel will extend approximately 100 feet downstream of the proposed bridge. It will also extend approximately 250 feet upstream of the proposed bridge. The bottom of the low-flow channel is approximately 18 feet wide while the top of bank is approximately 55 feet wide. The depth of the channel varies from 1 foot to 1.2 feet. The relocated low-flow channel will be restored to replicate the bio-resource of the existing low-flow channel. The project would result in 0.07 acre of temporary effects and 0.18 acre of permanent effects to U.S. Army Corps of Engineers (USACE) jurisdictional non wetland waters of the U.S. and in 1.64 acres of permanent and 3.06 of temporary effects to California Department of Fish and Wildlife (CDFW) jurisdictional streambed and associated riparian habitat. The proposed project is anticipated to require the following agency permits: a Federal Clean Water Act (CWA) Section 404 permit authorization from the USACE, a CWA Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB), and a Fish and Game Code Section 1602 Streambed Alteration Agreement from the CDFW. As previously described, riparian habitat is present on the project site within Temescal Wash.

As Table B shows, the project will have 0.34 acre of temporary impacts and 0.06 acre of permanent impacts to riparian/riverine vegetation with the BSA. To compensate for the temporary loss of 0.34 acre and the permanent loss of 0.06 acre of riparian/riverine resources, the project will mitigate for temporary impacts at a 1:1 ratio and at a 3:1 ratio for permanent impacts. Mitigation for 7.98 acres will be provided through a combination of on-site and off-site habitat restoration. The project will restore 6.22 acres on site and the remaining 1.76 acres off site. Adherence to **Mitigation Measures BIO-23 and BIO-24** will reduce impacts associated with the loss of wetlands to a less than significant level.

Table B: Impacts to Riparian/Riverine Vegetation

Vegetation Community	Total Riparian/Riverine (acres)	Impacts (acres)	
		Temporary	Permanent
Ruderal	6.05	2.04	1.30
Eucalyptus Trees/Scattered Riparian Vegetation	0.90	0.34	0.06
Eucalyptus Trees	1.31	0.46	0.22
Coastal Sage Scrub	0.26	0	0.01
Coast Live Oak Trees	0.56	0.28	0.19
Total	**11.60**	**3.24**	**3.03**

Source: Compiled by LSA (January 2017)

Mitigation Measures:

BIO-23 A Habitat Mitigation and Monitoring Plan (HMMP) shall be prepared and implemented by the project. The purpose of the HMMP will be to improve the function of values of Temescal Creek as a natural ephemeral stream and of the adjacent open spaces as a wildlife corridor. The goals of the HMMP are listed below.

1. Remove non-native trees and shrubs from the reaches of Temescal Creek located outside of the grading limits. Examples of species to be removed are eucalyptus, tamarisk, and tree tobacco. Stumps shall be treated with herbicide to prevent resprouting.
2. Establish cottonwood, arroyo shallow, mule fat, and elderberry and other tree and shrub riparian species using at least 1-gallon container stock. Planting and irrigation shall be installed in the relocated low-flow trapezoidal channel and in the excavated and widened channel bed/terrace of various widths upstream and downstream of the bridge. The channel bed shall be 8 to 10 feet lower than existing grade and the channel bed shall be excavated down 5 to 8 feet. Groundwater is possibly 10 feet below the existing ground level and establishment of this habitat will be dependent on appropriate hydrology. Hydrologic conditions within the restoration area will be determined prior to the preparation of the HMMP.
3. Approximately five coast live oak trees shall be removed by the project. To compensate for the loss of coast live oak trees, oak trees shall be replaced at a 10:1 replacement ratio on either side of the new and old road alignment within the transitional upland area. Mulch, bark, acorns, and branches from the existing trees shall be saved to serve as mulch around the planted oak saplings. The oaks shall be irrigated during establishment period. The number of replacement oak trees is estimated to be 50 but the actual number shall be determined after completion of an arborist inventory prior to tree removal.
4. Create native coastal sage scrub habitat (CSS) in the adjacent transitional upland areas. A diversity of common shrub, forbs, and annuals shall be seeded in the areas adjacent to the riparian areas and streambed. The CSS shall also be seeded around the oak trees. The upland areas shall be irrigated for the first three years to ensure rapid establishment.
5. Dedicate the restoration area as a long-term conservation easement.
6. Planting will be implemented using standard practices used by professional native landscaping companies, arborists, and irrigation installers. Creating natural stream characteristics after excavation of the channel bed and completion of the new streambed alignment will be guided by criteria described the 2012 function-based framework for restoration projects as recommended by the U.S. Army Corps of Engineers (USACE) and USFWS (Harmon, et al. 2012).
7. The HMMP will include an implementation plan, site preparation, seed and plant material, installation methods, performance standards, maintenance and monitoring success criteria, and reporting measures. The mitigation area will be maintained until performance standards are achieved, which is anticipated to be approximately five years.

BIO-24 The additional 1.76 acres of mitigation shall be acquired off site through one of the following options:

- **Option 1:** Purchase of 1.76 acres of restoration credits from a CDFW-approved mitigation bank or habitat conservation organization.
- **Option 2:** Provide 1.76 acres of mitigation on City-owned property. Provide long-term habitat restoration/enhancement and management with a non-wasting endowment

for an existing fairy shrimp conservation area. An HMMP will be prepared and the lands will be managed by a CDFW-approved conservation organization.

- **Option 3:** Wildlife Agencies-approved mitigation site for 1.76 acres. A mitigation opportunity, such as on an MSHCP Regional Conservation Authority conserved property, may become available by the time the project is ready to purchase off-site mitigation. It will preferably be located in or along Temescal Wash.

The preferred option shall be selected prior to any vegetation removal or ground disturbance associated with the proposed project and the City shall notify the RCA and Wildlife Agencies of the selected option immediately after the decision has been made. Initiation of the selected option shall also occur prior to vegetation removal or any ground disturbance, but may be finalized/completed within six months of the start of construction. If necessary, any extension of the off-site mitigation option should be done through a request submitted to RCA and the Wildlife Agencies.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impeded the use of native wildlife nursery sites?

Less Than Significant Impact with Mitigation Incorporated. The project site encompasses a portion of Temescal Wash, which is a tributary to the Santa Ana River at the Prado Flood Control Basin. The Santa Ana River conveys flows to the Pacific Ocean. Construction of the proposed project will occur during the daylight light hours while the use of the creek by wildlife as a corridor is primarily after dark. Additionally, the bridge will span Temescal Wash and will not result in the closing of the wildlife corridor. The proposed bridge will provide for wildlife movement consistent with Section 7.5.2 of the MSHCP for wildlife undercrossing structures, such as the proposed bridge structure, the MSHCP requires a minimum openness ratio. The openness ratio (area of structure opening/structure length) is commonly used to measure the probability of wildlife movement through a given structure. As calculated from the animal's perspective, the openness ratio is the undercrossing height multiplied by the undercrossing span, then divided by the road width. For large mammals (e.g., mule deer), the MSHCP requires a minimum openness ratio of 0.6 (as calculated in meters) with a minimum crossing height of 3 meters (10 feet) to 4 meters (13 feet). The MSHCP does not provide a minimum openness ratio for medium-sized mammals or smaller wildlife species, but recommends 1.0 to 1.5-meter culverts for medium-sized mammals and 1.0 to 0.5-meter culverts for smaller wildlife.

The proposed bridge will be 5.4 meters (17 feet, 7 inches) tall, 114.3 meters (375 feet) in span and 29.8 meters (98 feet) wide. The openness ratio of the proposed bridge will be approximately 20.7, which is well above the minimum 0.6 required for large mammals. In addition, the 5.4-meter (17 feet, 7 inches) height of the bridge is above the required height limit for large mammals. Based on this openness ratio, the proposed project will provide for large mammal wildlife movement.

Therefore, development of the proposed project will not substantially impede regional wildlife movement and impacts will be less than significant

Bats. It was determined, during general biological surveys within the project Biological Study Area and documented within the Natural Environmental Study (NES, Appendix C of the Initial Study) there is no suitable habitat for special status bats identified in the NES. However, to address potential effects to non-special status bats, **Mitigation Measure BIO-25** shall be implemented to provide appropriate avoidance, minimization, and mitigation to address bats, which will require that prior to construction, a Caltrans-approved bat biologist will conduct a bat assessment to identify the potential for bat species to occur within the project limits. Should the presence of bats be determined during the assessment, appropriate avoidance, minimization, and/or mitigation measures to reduce impacts,

as described in **Mitigation Measure BIO-25** will be implemented to reduce any impacts to non-special species bats to less than significant.

BIO-25• Prior to construction, a Caltrans-approved bat biologist shall conduct a bat assessment survey to determine the presence or absence of bat species that may occur within the project limits. Should the presence of bat species be determined during this assessment, the following measures shall be implemented to address potential impacts to bats.

- Project-related construction activities shall occur outside of the bat maternity roosting season (April 1–August 31), if feasible. Should such activities occur during the maternity roosting season (April 1–August 31), the following measures shall be implemented to minimize potential impacts to day-roosting bats (including maternity colonies) from project construction.
- Nighttime exit counts and acoustic surveys shall be performed by a qualified bat biologist at structures that may be subject to project-related impacts. These surveys shall be performed during the recognized bat maternity season (April 1–August 31, but preferably in June or July), and as far in advance of construction as possible in order to provide adequate time for mitigation planning.
- Construction activities within 200 feet of structures housing maternity colonies shall be coordinated with a Caltrans-approved bat biologist and the California Department of Fish and Wildlife.
- If direct impacts to bat-roosting habitat are anticipated, humane evictions and exclusions of roosting bats shall be performed under the supervision of a Caltrans-approved bat biologist after August 31 in the fall (September or October) prior to any work activities that would result in direct impacts or direct mortality to roosting bats. This action shall be performed in coordination with the California Department of Fish and Wildlife. To avoid potential mortality of flightless juvenile bats, evictions and exclusions of bats cannot be performed during the maternity season (April 1–August 31). Winter months are also inappropriate for bat eviction because not all individuals in a roost will emerge on any given night. In addition, long-distance movements to other roost sites are more difficult during the winter when prey availability is scarce, resulting in high mortality rates of evicted bats.
- If permanent, direct impacts to bat-roosting habitat are anticipated and/or if a humane eviction/exclusion is performed, alternate permanent roosting habitat shall be provided prior to the eviction/exclusion of bats from that structure to ensure no net loss of bat-roosting habitat. This action shall be coordinated with the California Department of Fish and Wildlife, and the design, numbers, and locations of these roost structures shall be determined in consultation with a Caltrans-approved bat biologist to ensure that the installed habitat will provide adequate mitigation for impacts.
- The loss of a night roost can negatively affect the use of a foraging area, and consequently may result in reduced fecundity in species that are already slow to reproduce. If night roosting is confirmed at any of the structures within the proposed project area, work shall be limited to the daylight hours to the greatest extent feasible to avoid potential disruption of foraging. If night work cannot be avoided, night lighting shall be focused only on the area of direct work, airspace access to and from the roost features of the structure shall not be obstructed,

and light spillover into the adjacent foraging areas shall be minimized to the greatest extent feasible.

- All mature trees to be removed as part of the project evaluated by a qualified bat biologist for their potential to support roosting bats. Trees that are identified as suitable bat roost sites shall be removed using a two-step process that occurs over a 2-day period. On Day 1, branches and limbs that do not contain crevices or cavities shall be removed using hand tools or chainsaws. The goal is to create a disturbance sufficient to cause any bats roosting in the tree to leave that night and not return, but not at a level of intensity that will cause bats to fly out of the tree during the disturbance itself (i.e., during the daytime, when leaving the roost will likely result in predation). On Day 2, the remainder of the tree may be removed. Trimming or removal of any mature trees and snags during the maternity season (April 1–August 31) shall be avoided to prevent "take" of flightless young; this period approximately coincides with bird nesting season (March 15–September 15).
- If removal of mature trees during the bat maternity season (April 1–August 31) is necessary for project construction, all mature trees to be removed that have also been identified as containing suitable bat roosting habitat shall be surveyed at night prior to removal. Any trees confirmed during those surveys as housing bat maternity colonies or special-status bat species shall be avoided until the end of the maternity season.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact With Mitigation Incorporated. The proposed project will not conflict with any local policies or ordinances protecting biological resources (e.g., tree preservation policy or ordinance). The adopted ordinance for protection of trees in the City is limited to significant palm trees (Lake Elsinore Municipal Code, Chapter 5.116, Significant Palm Trees).The City does not identify any such trees within the project site. However, the Riverside Conservation Agency regards mature oak trees as trees of concern and associated with the onsite riparian vegetation and recommends an oak tree replacement plan as a part of the revegetation plan required for the project. Implementation of **Mitigation Measure BIO-23** will ensure replacement over time of the mature oaks being affected by the construction of the proposed roadway.

f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant With Mitigation Incorporated. The project site is a covered activity under the Western Riverside County MSHCP and is therefore subject to its regulations. The MSHCP provides for the assembly of conservation lands consisting of Criteria Areas for the conservation of sensitive, threatened, and endangered species it covers. The MSHCP conservation area comprises a variety of existing and proposed Cores, Linkages, Constrained Linkages, and Noncontiguous Habitat Blocks. The proposed project is a covered activity under Section 7.3.4 Covered Activities for Existing Roads within Existing Public/Quasi-Public Lands and within MSHCP Cell Group I (Criteria Cell 3750) and Cell Group J (Criteria Cell 3751). As a result, the proposed project must comply with the following sections of the MSHCP:

- Section 6.1.2: Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools;
- Section 6.1.3: Protection of Narrow Endemic Plant Species;

- Section 6.1.4: Guidelines Pertaining to the Urban/Wildlands Interface;
- Section 6.3.2: Additional Survey Needs and Procedures;
- Section 7.5.1 Guidelines for the Siting and Design of Planned Roads;
- Section 7.5.2 Guidelines for Construction of Wildlife Crossings Within Criteria Area and Public/Quasi-Public Lands;
- Section 7.5.3 Construction Guidelines; and
- Standard Best Management Practices in Appendix C of the MSHCP.

The MSHCP species associated with riparian/riverine areas and vernal pools were assessed for the probability of occurring within and adjacent to the project site. No riparian/riverine species were found to be present within the BSA pursuant to the 2016 focused riparian bird survey. The BSA contains 0.90 acre of riparian/riverine habitat consistent with CDFW jurisdictional streambed and associated riparian vegetation. The project will result in 0.06 acre of permanent and 0.34 acre of temporary effects to riparian/riverine habitat in the BSA. Because the project cannot avoid all impacts to riparian/riverine areas, a Determination of Biologically Superior or Equivalent Preservation (DBESP) analysis was required to mitigate for any impacts. The project will compensate for riparian/riverine impacts through a combination of on-site and off-site habitat restoration (refer to Response to Question 4d. Mitigation in the DBESP is meant to mitigate impacts of both the bridge and the City-funded roadway project and will be equivalent or superior to that which will occur if impacts to the riparian/riverine resources were avoided.

At the minimum, compensation for riparian/riverine impacts in the DBESP will include on-site habitat enhancement and restoration at a 1:1 ratio. Mitigation in the DBESP will be equivalent or superior to that which will occur if impacts to the riparian/riverine resources were avoided. The City is proposing a mitigation ratio of 1:1 for temporary impacts and 3:1 for permanent impacts to riparian/riverine habitat. Implementation of **Mitigation Measures BIO-23 through Bio-25** will reduce the impacts of the project on riparian/riverine resources to less than significant.

5. CULTURAL RESOURCES

The analysis in this section of the Initial Study is based on the following reports prepared for the project:

- Historic Property Survey Report LSA Associates, Inc., November 13, 2017 (Appendix D of this Initial Study).

a and b) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant Impact. A Cultural Resources Assessment[11] was prepared to identify and determine any historical resources that may be present within the project limits (refer to Appendix D). The Area of Potential Effects (APE) was established in accordance with Section 106 Programmatic Agreement Stipulation VIII.A, to include all areas in which the project has the potential to directly or indirectly affect historic properties, if such properties exist. A records search and literature review was

[11] Historic Property Survey Report, LSA Associates, Inc., November 11, 2017 (Appendix D).

conducted on February 23, 2016 at the Eastern Information Center (EIC) at the University of California, Riverside. This search included consultation with Archaeological Determinations of Eligibility, National Register of Historic Places Properties, California Register of Historical Resources, California Inventory of Historic Resources, California Historical Landmarks, and California Points of Historical Interest. Results from the archival research and historical society outreach identified three cultural resources that were partially within the APE. These resources include a very small portion of the 1,000-acre Alberhill Mining District (33-017016), a segment of abandoned Santa Fe Railroad alignment (33-003832), and portions of the Old Temescal Road (Point of Interest #638). The Alberhill Mining District was previously evaluated in 2007 as eligible for listing in the California Register, but was not evaluated as part of this project as the APE makes up less than one percent of the district and there were no contributing features within the APE.

An intensive pedestrian field survey of the APE was conducted on August 19, 2016. The railroad alignment and elements of an undocumented historic period water conveyance system were identified during the survey. However, no traces of the Old Temescal Road, and no previously undocumented archaeological resources were identified during the survey. None of the Alberhill Mining District's contributing resources are located within the APE. It has been determined that there is little or no potential for buried resources and no archaeological resources will be affected by this undertaking.

If previously unidentified cultural materials are unearthed during construction, it is Caltrans and City policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. Implementation of this standard condition will reduce impacts on cultural resources to less than significant.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. The project area is not identified by the City of Lake Elsinore as containing unique paleontological resources or geologic features. The City's General Plan designates the project site as an area with low paleontological sensitivity[12]. In the event the ground-disturbing activities unearth a paleontological resource, work will be halted in the area until a qualified paleontologist can assess the significance of the find. Therefore, impacts associated with this issue will be less than significant and no mitigation is required.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact With Mitigation Incorporated. The California Health and Safety Code (Section 7050.5) states that if human remains are discovered on site, no further disturbance will occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98, including coordination with local Native American Indians, if the remains are prehistoric. Adherence to state regulations and consistency with AVSP Mitigation Measure CR-6a[13], as reflected in **Mitigation Measure CUL-01,** will ensure that impacts associated with this issue are reduced to less than significant.

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[12] Page 4-61 City of Lake Elsinore General Plan Section 4.6.7 Paleontological Resources. Figure 4.6

[13] City of Lake Elsinore, 2016. Mitigation Monitoring and Reporting Program. Final Environmental Impact Report for the Alberhill Villages Specific Plan. SCH#2012061046, June 2016.

Mitigation Measure:

CUL-01 If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours. Subsequently, the Native American Heritage Commission shall identify the person or persons it believes to be the "most likely descendant." The most likely descendant may then make recommendations, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98

6. GEOLOGY AND SOILS

The analysis in this section of the Initial Study is based on the following report prepared for the project:

- District Preliminary Geotechnical Report, Temescal Canyon Road Project, Group Delta Consultants, Inc., April 4, 2016 (Appendix E of this Initial Study).

Summary: It is anticipated that imported soil will be required for embankment construction. Bridge supports are expected to be supported on deep foundations. The primary potential seismic and geologic hazards at the site include strong ground shaking due to nearby faults, liquefaction and its effects, seismic embankment stability and lateral spreading, amount and time rate of embankment settlements due to consolidation, and flooding. Surface fault rupture, tsunamis, and landslide hazards are not significant. Subgrade preparation requirements, grading recommendations, embankment settlement evaluation, foundation design, pavement design, and quantification of geologic hazards will require subsurface exploration at a later stage of the project. Actual depth to groundwater is unknown, but may have a significant construction impact in the event that dewatering and/or cofferdams are required for bridge pier construction excavations. Accurate groundwater depth should be defined by subsurface exploration.

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 evidences of known fault? (Refer to Division of Mines and Geological Special Publication 42.)

***No Impact*.** Fault rupture is the most easily avoided seismic hazard. The Alquist-Priolo Earthquake Fault Zoning Act (Act) mitigates fault rupture hazards by prohibiting the location of structures for human occupancy across the trace of an active fault. The Act requires the State Geologist to delineate "Earthquake Fault Zones" along faults that are "sufficiently active" and "well defined." The boundary of an "Earthquake Fault Zone" is generally 500 feet from major active faults and from 200 to 300 feet from well-defined minor faults. The mapping of active faults has been completed by the State Geologist. These maps are distributed to all affected cities, counties, and State agencies for their use

in developing planning policies and controlling renovation or new construction. Based on the AVSP, the proposed project site is not identified as being within an Alquist-Priolo Earthquake Fault Zone.[14]

The closest major active fault, the Elsinore Fault, is approximately 1.3 miles southwest of the project site. There are no known faults capable of fault rupture that pass through the site. Therefore, no people or structures will be exposed to potential substantial adverse effects, including the risk of loss, injury, or death from the rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map. No fault rupture impact will result from the implementation of this project and no mitigation is required.

ii) Strong seismic ground shaking?

***Less Than Significant with Mitigation Incorporated*.** Although there are no known active faults running through the project site, the project site, like all of Southern California, is located in a seismically active region. As discussed above in response 6.a.i., the Elsinore Fault Zone is located approximately 1.3 miles southwest of the project site. This zone consists of the Glen Ivy North Fault on the north side of Lake Elsinore, and the Wildomar Fault on the south side of Lake Elsinore. The Elsinore Fault Zone is a right-lateral strike-slip fault, with probable magnitudes of M_W 6.5-7.5 on a recurrence interval of approximately 250 years between major events. The last major rupture in this zone was a magnitude 6 quake in 1910, with no evidence of surface rupture.[15]

Earthquake-generated ground shaking is the most pervasive and critical earthquake factor in the Southern California region. Ground shaking is the earthquake effect that results in the vast majority of damage. Because the subject property is located within the vicinity of the Elsinore Fault Zone, the project site is subject to potential impacts related to ground shaking in the event of an earthquake. According to the Earthquake Shaking Potential for California Map (2016),[16] due to the project location within a region near major, active faults, the area will on average experience stronger earthquake shaking more frequently. All future structures will be designed to comply with seismic standards. Adherence with seismic standards and **Mitigation Measure GEO-01** outlined in the site-specific geologic report, the proposed project will result in less than significant impacts related to strong seismic ground shaking.

Mitigation Measure:

GEO-01 During final design, borings shall be conducted by a registered geologist with Standard Penetration Testing and Seismic Cone Penetration Tests (SCPTs). Final design ARS curve should be developed using the estimated Vs30 and Caltrans ARS Online tool.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant with Mitigation Incorporated. Liquefaction occurs when loose, unconsolidated, water-laden soils are subject to shaking, causing the soils to lose cohesion. Based on the City of Lake Elsinore's General Plan, the project site is in an area with moderate potential for liquefaction.[17] Issues related to potential ground failure will be addressed through compliance with

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[14] Figure 4.1-5: "Alquist-Priolo Fault Zoning Map," 4.1 GEOLOGY, SOILS, MINERAL RESOURCES AND SEISMICITY, Program Environmental Impact Report, Alberhill Villages Specific Plan, May 2011.

[15] http://scedc.caltech.edu/significant/elsinore.html

[16] California Geological Survey Earthquake Shaking Potential for California. 2016. ftp://ftp.conservation.ca.gov/pub/dmg/pubs/ms/048/MS_048_revised_2016.pdf (accessed 02/15/2017)

[17] Figure 3.4: "Liquefaction Susceptibility", City of Lake Elsinore General Plan Public Safety and Welfare Element, City of Lake Elsinore, December 2011.

Mitigation Measure GEO-2. Therefore, impacts associated with seismic-related ground failure are reduced to less than significant.

Mitigation Measure:

GEO-02 Liquefaction potential, seismically-induced liquefaction and dry sand settlement, and potential for ground and embankment instability or displacement due to liquefaction shall be quantified in final design by conducting borings with Standard Penetration Testing and Cone Penetration Testing (CPT), measuring stabilized groundwater levels, and performing detailed liquefaction analysis. If final design studies indicate it is required, mitigation measures could include structural solutions such as use of longer piles to mitigate settlement and/or lateral displacements of structures, or ground improvement solutions to reduce liquefaction potential and its impacts.

iv) Landslides?

Less than Significant Impact. The proposed project is within an area that has been extensively mined and is not located in proximity to a geographical feature that will be susceptible to landslides, as defined in the City's General Plan Program EIR[18]. Additionally, the City's General Plan indicates that the project is in an area with 0-15% slopes[19], and project construction will not impact the existing topography. Because the proposed project is not located within close proximity of any geographical feature that will be susceptible to producing landslides, and is in an area of less than 15% slopes, the occurrence of a landslide near or on the project site is low. Therefore, impacts associated with landslides are less than significant.

a) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Soils are classified by the United States Natural Resource Conservation Service into four hydrologic soils groups based on the soil's runoff potential. "Hydrologic soil group" is a term that represents a group of soils having similar runoff potential under similar storm and cover conditions. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for bare soil after prolonged wetting. The five predominantly mapped soil units within and adjacent to the project site are: Gorgonio loamy sand, 0 to 8 percent slopes (GhC), Honcut sandy loam, 2 to 8 percent slopes (HnC), Clay Pits, Tujunga gravelly loamy sand, 0 to 8 percent slopes (TwC).[20] These soils belong to Group A or B of the hydrologic soil group, which is characterized as having a low runoff potential and high infiltration rate when thoroughly wetted. Therefore, these soils are considered to have a low runoff or erosion potential.

Although the project site soils have a low runoff or erosion potential, the proposed project will require the excavation and movement of on-site soils, which could provide for runoff or erosion issues. Further, construction projects resulting in the disturbance of 1.0 acre or more are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit issued by the Regional Water Quality Control Board (RWQCB). The project's construction contractor will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) that identifies Best Management Practices (BMPs) to limit the soil erosion during project construction. Adherence during construction to provisions of the

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18 City of Lake Elsinore General Plan Program EIR 2011. Section 3.11 Geology and Soils, Slope Stability (p. 3.11-18).

19 City of Lake Elsinore General Plan 2011. Public Safety and Welfare Element. Figure 3.5 "Percent Slope"

20 District Preliminary Geotechnical Report: Temescal Canyon Road Project, Lake Elsinore CA, Group Delta Consultants, Inc., April 4, 2016 (Appendix E).

NPDES permit and applicable BMPs contained in the SWPPP will ensure that potential impacts related to soil erosion are less than significant. No mitigation is required.

b) 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-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant Impact. Subsidence is the sudden sinking or gradual downward settling of the earth's surface with little or no horizontal motion. Subsidence is caused by a variety of activities, which include (but is not limited to) withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydro-compaction. The project does not include the on-site removal of groundwater. Minor ground subsidence is expected to occur in the soils below the zone of removal due to settlement and machinery working. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to precisely assess. Adherence to City and engineering requirements and standards will reduce potential impacts associated with unstable soils to a less than significant level. No mitigation is required.

c) 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?

***Less than Significant with Mitigation Incorporated*.** Expansive soils generally have a significant amount of clay particles which can give up water (shrink) or take on water (swell). The change in volume exerts stress on buildings and other loads placed on these soils. The extent of shrink/swell is influenced by the amount and kind of clay in the soil. The occurrence of these soils is often associated with geologic units having marginal stability. The distribution of expansive soils can be widely dispersed and they can occur in hillside areas as well as low-lying alluvial basins.

The Log of Test Borings from the Lake Street Bridge and soil surveys[21] indicate that surface soils within the project site are mostly silty sand and clayey sand, which are expected to have low to medium expansion potential. However, due to the proximity of the project site to the Pacific Aggregates Clay Pits, the presence of moderately to highly expansive clays cannot be ruled out. The geotechnical report recommended additional soil testing during final design (**Mitigation Measure GEO-03**) With implementation of these tests and recommended actions, impacts associated with expansive soils are reduced to less than significant.

Mitigation Measure:

GEO-03 During final design, soil borings and laboratory testing shall be performed to screen for potentially volumetrically unstable materials and need for any mitigation. Typical tests would include Atterberg Limits, Moisture Content and Dry Density, Expansion Index, and One-dimensional Swell/ Collapse consolidation tests.

d) 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?

***No Impact*.** The proposed project is a roadway improvement project that does not have a septic or alternative waste disposal system component; therefore, alternative wastewater disposal systems will not be utilized, no impact related to this issue will occur, and no mitigation is required.

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[21] Ibid.

7. GREENHOUSE GAS EMISSIONS

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

***b)* Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gases?**

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

The 2020 BAU (Business as Usual) emissions projection was revisited in support of the First Update to the Scoping Plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand as well as other factors. It also accounts for the effects of the 2008 economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario include reductions anticipated from Pavley I and the Renewable Electricity Standard (30 $MMTCO_2e$ total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 $MMTCO_2e$. [22]

Four primary strategies can reduce GHG emissions from transportation sources: (1) improving the transportation system and operational efficiencies, (2) reducing travel activity), (3) transitioning to lower GHG-emitting fuels, and (4) improving vehicle technologies/efficiency. To be most effective all four strategies should be pursued concurrently.

One of the main strategies in the Caltrans *Climate Action Program* to reduce GHG emissions is to make California's transportation system more efficient. The highest levels of CO_2 from mobile sources, such as automobiles, occur at stop-and-go speeds (0–25 mph) and speeds over 55 mph; the most severe emissions occur from 0–25 mph. To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors, GHG emissions, particularly CO_2, may be reduced.

Project Operational Emissions: The proposed project will not increase traffic volumes on Temescal Canyon Road and traffic volumes would be less than 50,000 daily trips. Therefore, the proposed project alternative will not substantially alter the long-term GHG emissions.

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

2. Source: California Air Resources Board. Website: http://www.arb.ca.gov/cc/inventory/data/bau.htm. (accessed 12-1-17)

better traffic management during construction phases. During construction of the project, GHGs will be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Using the same Roadway Construction Model for the criteria pollutants (refer to Appendix B), the maximum amount of construction-related GHG emissions generated would be approximately 986 metric tons for the total construction period. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events. Per Mitigation Measure AIR-05, above, idling times will be restricted to 10 minutes in each direction for passenger cars during lane closures and 5 minutes for construction vehicles. The restriction of idling times reduces harmful emissions from passenger cars and diesel-powered construction vehicles.

Therefore, the project will have a less than significant impact on GHG emissions.

8. HAZARDS AND HAZARDOUS MATERIALS

The analysis in this section of the Initial Study is based on the following reports prepared for the project

- Initial Site Assessment (Hazardous Materials), Group Delta Consultants, Inc. April 18, 2016. (Appendix F-1)
- Aerially Deposited Lead (ADL) Investigation Temescal Canyon Road Over Temescal Wash Bridge Replacement Project. Group Delta, March 18, 2016 (Appendix F-2).
- Yellow Paint and Thermoplastic Traffic Striping. Group Delta, March 18, 2016 (Appendix F-3).

a) Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. During the construction of the new bridge, there will be a nominal quantity of various hazardous materials and fluids on or near the area consisting of fuels, lubricants, and other materials typically associated with construction activities. An initial site assessment was conducted in March 2016, which included an investigation of aerially deposited lead (ADL),[23] which can be found in soils adjacent to paved areas from vehicle exhaust. Concentrations of lead in soil represent a potential threat to the health of site workers performing earthwork activities on some highway construction projects. The permissible exposure limit (PEL) for lead is 0.05 milligrams per cubic meter (mg/m3) in air based on an eight-hour time-weighted average; the Immediately Dangerous to Life and Health (IDLH) exposure limit is 100 mg/m3 as established by the National Institute of Occupational Safety and Health (NIOSH). Soils can be categorized into specific ADL management types using the federal and state hazardous waste classifications. To classify the soil on the proposed project, statistical analyses were conducted by evaluating the site as one segment. Average total lead values were below regulatory levels, and none of the samples analyzed exceeded 50 mg/m3. Soil from all depth intervals will be classified as non-hazardous waste if disposed offsite. Additionally, surplus soil can be disposed of as non-hazardous waste at a Class III landfill or exported for reuse elsewhere in accordance with the destination's waste acceptance policy and local environmental regulations. Excavated soil is not restricted for on-site reuse. ADL therefore poses a less than significant impact.

[23] Aerially Deposited Lead (ADL) Investigation Temescal Canyon Road Over Temescal Wash Bridge Replacement Project. Group Delta March 18, 2016 (Appendix F-2).

The initial site assessment also included an investigation of yellow paint and thermoplastic striping (PTS) [24], which remains in place on Caltrans right-of-way throughout California. Yellow PTS is considered a potential hazard, as it can contain lead and chromium at high enough concentrations to necessitate special management during removal and disposal as hazardous waste. Because the project requires the disturbance and removal of existing yellow PTS, laboratory analyses were conducted to test the concentrations of lead and chromium in the potentially affected roadways. Analytical results found that the concentrations of chromium and lead in yellow PTS along the project alignment do not exceed the established California criteria for non-Resource Conservation and Recovery Act (non-RCRA) California hazardous waste. Results concluded that striping with hazardous levels of chromium or lead does not exist on the project. The yellow PTS associated with the project can be managed and disposed of as non-hazardous construction debris.

Additionally, while older bridges have the potential to contain asbestos fibers and other asbestos-containing materials, the proposed project does not involve demolition of the existing bridge. The proposed project will have a less than significant impact associated with the routine transport, use, or disposal of hazardous materials, and no mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. Because the proposed project is a roadway improvement project, the range of activities that will occur on the project site during the operational phase will not allow for the use, storage, disposal or transport of large volumes of toxic, flammable, explosive, or otherwise hazardous materials that could cause serious environmental damage in the event of an accident. All activity involving hazardous substances during the operation of the proposed project will be conducted in accordance with applicable local, state, and federal safety standards. Therefore, the proposed project will not result in a significant hazard to the public or the environment through a reasonably foreseeable upset or accident condition related to the release of hazardous materials. No mitigation is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The nearest school to the project site is Luiseno Elementary School, approximately 1.5 miles west of the project site. Other schools in the proximity of the project site include Rice Canyon Elementary School (approximately 2.25 miles south of the project site), Terra Cotta Middle School (approximately 2.5 miles southeast of the project site), Temescal Canyon High School (3.5 miles southeast of the project site), and Todd Elementary School (4.0 miles northwest of the project site). According to the AVSP Comprehensive Land Use Plan (Figure 3-1), there is land designated to support a 6,000-student university directly south of the Temescal Canyon Road, which will be within one-quarter mile of the project site. However, as discussed in section 8b) above, the proposed project operation does not involve hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste, and all handling will be conducted in accordance with applicable local, state, and federal safety standards. Therefore, no impact associated with this issue is anticipated to occur and no mitigation is required.

[24] Yellow Paint and Thermoplastic Traffic Striping. Group Delta, March 18, 2016 (Appendix F-2).

d) Be located on site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant Impact. According to the DTSC EnviroStor database[25], the project site is not located on a federal superfund site, State response site, voluntary cleanup site, school cleanup site, corrective action site, or tiered permit site. The AVSP PEIR[26] found that the Pacific Clay property was identified as having two previous Underground Leaking Storage Tanks (RB Case #083303229T and Loc. Case #980657) both meeting the "Cortese List" requirements set forth by Government Code Section 65962.5. However, both of these cases have been deemed "closed". Therefore, impacts are less than significant.

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?

No Impact. The project site is not located within an area subject to an airport land use plan. The nearest airport (McConville Private Airstrip[27]) is approximately 6 miles southwest from the site, and the nearest public airport (Riverside Municipal Airport) is approximately 15 miles north of the project site. Further, the proposed project is an update of existing infrastructure and will not result in a safety hazard for people working and residing in the area. Therefore, no impacts related to this issue will occur and no mitigation is required.

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?

No Impact. The project is not located within the vicinity of a private airstrip or heliport (refer to response to 8[e]). The nearest private airstrip is located 6 miles from the project site. Consequently, no impacts associated with this issue will occur and no mitigation is required.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The proposed project will be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, resulting in the provision of adequate vehicular access that will provide for adequate emergency access and evacuation. Construction activities that may temporarily restrict vehicular traffic will be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Adherence to these measures will reduce potential impacts related to this issue to a less than significant level, and no mitigation is required.

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25 California Department of Toxic Substances Control, ENRIOStor, Website: https://www.envirostor.dtsc.ca.gov/public/, (accessed February 16, 2017).

26 AVSP FPEIR 4.2 Hazards and Hazardous Materials.

27 U.S. Department of Transportation, Federal Aviation Administration "Airport Master Record". http://www.gcr1.com/5010ReportRouter/CA89.pdf (accessed 2/17/2017).

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands?

Less than Significant Impact. The project site is located within a "Very High Fire Hazard Severity Zone (VHFHSZ)" area as identified by CALFIRE[28]. Although the proposed project is located within a VHFHSZ, the project site itself is located within an extensively graded and mined region within the existing community of Alberhill. There is limited vegetated wildlands that will serve as fuel in the event of a fire. Therefore, impacts related to the risk of loss, injury, or death from wildland fires will be reduced to less than significant.

9. HYDROLOGY AND WATER QUALITY

The analysis in this section of the Initial Study is based on the following report prepared for the project:

- Water Quality Assessment Report: New Temescal Canyon Road Bridge and Roadway Project, Aguilar Consulting, Inc., November 30, 2016 (Appendix G).
- Appendix H-1: Floodplain and Bridge Hydraulics and Scour Study Report, Aguilar Engineering, Inc., November 14, 2017
- Appendix H-2: Supplemental Floodplain Study and Bridge Hydraulics and Scour Study Report, Aguilar Engineering, Inc., March 23, 2018

a) Violate any water quality standards or waste discharge requirements?

***Less than Significant Impact with Mitigation Incorporated*.** Future construction activities on the project site will include the construction of a new bridge over Temescal Wash and the realignment of the roadway north, and 200 feet south of the bridge. Construction will also involve drainage improvements within Temescal Wash, and includes minor regrading near the bridge and construction of concrete slope protection and cutoff wall to protect the bridge abutments from scour. Pollutants of concern during construction include trash, sediment, oil, grease, fuel, and metals. During construction activities, excavated soil will be exposed and there will be an increased potential for soil erosion compared to existing conditions. During construction, the total disturbed area will be approximately 3.24 acres. As discussed in the Water Quality Assessment Report (WQAR)[29] prepared for the proposed project, the project is obligated to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014-DWG). This permit regulates storm water discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. The applicant is also required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). As part of the SWPPP, the applicant will identify best management practices (BMPs) to address water quality impacts associated with construction operations. Construction BMPs will include, but not be limited to, erosion control and sediment control BMPs designed to minimize erosion and retain sediment on site and good

[28] California Department of Forestry and Fire Protection (2009). "Lake Elsinore Very High Fire Hazard Severity Zones in LRA Recommended by CAL FIRE. http://www.fire.ca.gov/fire_prevention/fhsz_maps/FHSZ/riverside/Lake_Elsinore.pdf (accessed 2/17/2017).

[29] Water Quality Assessment Report: New Temescal Canyon Road Bridge and Roadway Project, Aguilar Consulting, Inc., November 30, 2016 (Appendix G)

housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. The SWPPP will be developed, and construction BMPs selected and implemented, to target pollutants of concern during construction. The construction BMPs will be designed to retain sediment and other pollutants on site so they will not reach receiving waters or degrade beneficial uses. In addition to these measures, the WQAR recommends several **Mitigation Measures (WQA-01 through WQA-06** listed below) that will be used during construction and operation.

Expected pollutants of concern during operation and maintenance of the future bridge and roadway alignment will be related to surface abrasion from street sweeping, and to crack/joint sealing, painting, and resurfacing activities. Potential pollutants during operation and maintenance include sediment, metals, organic compounds, oil, grease, and debris. However, operations and maintenance of the new bridge will be the same as the existing conditions, so it is anticipated that the project will not have an adverse effect on stormwater quality in the region. There will be minimal addition of impervious area to the watershed. The area of the new bridge and roadway is miniscule in comparison to the total area that is tributary to the watershed, and although the new bridge will be wider than the existing bridge, it is anticipated that there will be no significant change to the stormwater flow rates and volumes that discharge from the bridge into Temescal Wash.

Project compliance with all applicable permits, associated regulations, and mitigation measures will ensure that impacts from the proposed project related to potential violations with water quality standards or waste discharge requirements will be reduced to less than significant.

Mitigation Measures:

WQA-01 **Education for Property Owners, Operators, Tenants, Occupants, or Employees.** The City of Lake Elsinore shall provide affected city personnel with general WQMP education materials from the Santa Ana River Region Stormwater Management Plan and/or California Regional Water Quality Control Board, Santa Ana River Basin Region, California Stormwater Quality Association BMP Handbook, or other appropriate sources. These educational materials shall include general housekeeping practices that prevent pollutant loading in site runoff and other BMPs that eliminate or reduce pollutant loading during subsequent project improvements.

WQA-02 **Activity Restrictions.** The types of activities allowed within the project shall be limited to and in accordance with the City of Lake Elsinore codes, regulations, and zoning ordinances. Activities such as staging or stockpiling construction and landscaping materials or wastes in areas where they can be discharged to storm drains shall be prohibited. Activities associated with street and landscape maintenance, which can discharge pollutants (oil/grease, sediments, solvents, pesticides, herbicides, etc.) into Temescal Wash, shall be prohibited. Additionally, vehicle maintenance and washing shall be prohibited since it is not a feature of the project or associated project activities.

WQA-03 **Common Area Litter Control.** There is no common area proposed in the bridge project. The project is located in the street right-of-way crossing over Temescal Wash, which shall be maintained by the City of Lake Elsinore. Windblown trash and littering are the primary anticipated source of litter. The City of Lake Elsinore shall conduct street sweeping operation at the project site on a regular basis to pick up any accumulated trash and debris on the street and bridge. The street and bridge shall be inspected monthly and prior to the storm season (October 1st), and any accumulation of trash or debris shall be removed. The landscaped areas of the site shall be inspected during landscape maintenance and any accumulation of trash or debris shall be removed.

WQA-04 **Street Sweeping Public Street.** Temescal Canyon Road (public street) shall be swept once a month by the City of Lake Elsinore as a part of their street sweeping schedule.

WQA-05 **Drainage Facility Inspection and Maintenance.** The City of Lake Elsinore shall be responsible for the inspection and maintenance of the drainage facilities. The drainage system on Temescal Canyon Road shall be inspected at least once a year, preferably prior to the rainy season and following significant storm events. The filter insert BMPs should be inspected and maintained periodically for the proper and efficient operation of drainage system. The City shall maintain records of the inspection and maintenance activities.

Upon completion of the project, the City of Lake Elsinore shall conduct training sessions for City staff and associated contractors covering the requirements of the Source Control BMPs including, but not limited to the requirements of the Santa Ana River Region Stormwater Management Plan and the Stormwater Discharge General Permit.

The City of Lake Elsinore shall ensure that updated training materials are provided to city staff and service contractors annually. The City of Lake Elsinore shall be responsible for providing BMP training and education programs to all affected new employees, including service contractors. A record of city staff and service contractors who were trained shall be maintained along with their respective training dates.

WQA-06 **Project Slopes and Channels.** All proposed slopes with slope gradient of 1.5:1 or flatter shall be planted with deep rooted, drought tolerant erosion protection vegetation native to the area. Slopes steeper than 1.5:1 gradient shall be surfaced with concrete for erosion protection and slope stability. Drainage ditches associated with slope construction that outlet into Temescal Wash, if any, shall be lined with concrete and their outlets shall incorporate energy dissipater devices, such as rip-rap. The project slopes and graded area shall be maintained by the City of Lake Elsinore.

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 (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than Significant with Mitigation Incorporated. As indicated in the Water Quality Assessment Report, the project site is within the service boundaries of the Elsinore Valley Municipal Water District (EVMWD). EVMWD's Elsinore Division has eight active municipal wells that provide drinking water from a deep aquifer. Because the project is a roadway improvement project, implementation of the proposed project will not require any withdrawal of groundwater beneath the project site except during the construction of the bridge foundations and cutoff walls (for scour protection). However, since the main channel will be graded in the area of the bridge to depths that range from 1.5 feet to 7.5 feet and the preliminary soils report indicate that the groundwater table might be 10 feet below the ground surface, the possibility of groundwater draining to the surface and lowering the local groundwater table cannot be ignored. Therefore, it is incumbent upon this project to perform groundwater table testing, and install monitoring wells (**Mitigation Measure HYD-01**). With implementation of these tests and recommended actions, impacts associated with groundwater intrusion are reduced to less than significant.

Mitigation Measure:

HYD-01 During final design (PS&E phase), groundwater table testing and monitoring shall be performed to determine actual and seasonal groundwater table data. Groundwater table testing shall be performed, and monitoring wells shall be installed at the beginning of final design at three locations; (1) upstream of the bridge, (2) downstream of the bridge, and (3) within the bridge footprint. The current groundwater table shall be measured using a hollow-stem auger drilling approximately 10 feet below groundwater table. The standpipe piezometer wells shall be installed and monitored monthly during the dry season, and one day after and five days after each significant rainfall event, but no less than monthly during the rainy season. Monitoring of the groundwater table shall be performed for a period of at least a year prior to start of project construction and until construction of the bridge foundations and cutoff walls are completed in order to obtain seasonal groundwater table information. If the results of the tests indicate a shallow or perched groundwater condition that will result in groundwater draining to the surface, then the project design shall be modified to minimize grading of the main channel and the profile of the bridge and roadway over the wash shall be raised over Temescal Wash will be raised to provide adequate conveyance of the 100-year storm flow.

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 site or off site?

***Less than Significant Impact with Mitigation Incorporated*.** Since the proposed bridge reduces the existing flow conveyance area of Temescal Wash and channel grading is proposed near the project site, there will be changes to the flow depth and flow velocity for the reach of Temescal Wash immediately upstream and downstream of the bridge from the existing (pre-project) to the proposed (with-project) conditions. Although the results of the initial hydraulic study indicate no substantial hydraulic changes will occur to the existing flow depth and flow velocity and the risk of erosion or siltation will not significantly increase, a sediment transport study will be performed during the PS&E phase based on the existing and proposed conditions to verify the findings of the initial hydraulic study (**Mitigation Measure HYD-02**). Preparing the sediment transport study for Temescal Wash and recommended actions, impacts associated with erosion or siltation are reduced to less than significant.

Mitigation Measure:

HYD-02 During final design (PS&E phase), a sediment transport study shall be prepared for Temescal Wash from Bernard Street up to Lake Street. The task shall include evaluation of historical channel trends, contrast of local channel slopes to regional slope variation, evaluation of anticipated changes to sediment loading to the project reach due to upstream activities, hydraulic capacity calculations of using normal depth procedures, and sediment transport potential evaluation using qualitative hydraulic indicators. Steady-state methodologies shall be used to contrast the sediment transport capacity of the channel reach local to the proposed bridge with anticipated supply rates, over a range of discharge conditions. Local sediment size information shall be used with the hydraulic information and sediment transport relations to estimate bed material sediment transport volumes passing through the upstream, local and downstream channel reach. Sediment continuity shall be applied to estimate potential erosion/sedimentation depths to be expected along the proposed channel under design event and average annual conditions. Local scour components, due to drop structures or other features incorporated into the proposed plan shall be computed, if applicable. The potential hydraulic and/or channel deformation effects of bed form development shall be assessed

as well. Should the results of the sediment transport study indicate that the risk of erosion or siltation has significantly increased due to the proposed channel grading, then the project design shall be modified to minimize grading of the main channel and the profile of the bridge and roadway over Temescal Wash to provide adequate conveyance of the 100-year storm flow.

Stream Stability and Scour. An initial hydraulics and channel stability assessment was prepared (Appendices H-1 and H-2) to determine (or predict) the stability of Temescal Wash using the following engineering procedures to evaluate the results of the hydraulic calculations, specifically flow velocities, between the existing (pre-project) and proposed (with-project) conditions. Per the HEC-RAS model, the flow velocities at the upstream end of the bridge under the existing and proposed conditions are 4.16 feet per second (FPS) and 3.50 FPS, respectively, which indicate that the flow velocity is reduced by 0.66 FPS upon construction of the proposed bridge. Since the flow velocity under the proposed condition is lower than the existing condition, the project will not have an impact to the current or existing scour condition of the wash in the vicinity of the bridge and no mitigation is required.

Sedimentation and Siltation. According to the preliminary soils report, the soil type in the project area can be classified as Silty Sand and Clayey Sand with approximate D50 values of 0.18 mm and 0.15 mm, respectively. As discussed previously, the 100-year flow velocity at the upstream face of the proposed bridge is 3.5 FPS. Per the Hjulstrom's diagram (see Figure 5) and based on a flow velocity of 3.5 FPS (or 106.7 cm/sec) and D50 value of 0.18 mm, the soil in the project area is expected to be in the "erosion" section of the diagram, which means that movement of sediment is expected to occur, for soils with a D50 value of 25 mm or less (clay, silt and very fine sand to less than coarse sand). In order for the soils to drop off or settle in the bridge area, the flow velocity needs to be about 0.06 FPS (or 2 cm/sec) or lower, which is not expected to occur even during the more frequent storm event (i.e. less than the 100-year event such as the 2, 5 or 10-year events). Please note that the computed flow velocity of 3.5 FPS was derived based on high roughness coefficients (Manning's N-values) of 0.07 for the main channel and 0.055 for the floodplain area to reflect the proposed vegetation plan within the conservation easement.

The hydraulic study determined there would not be a significant channel degradation (head-cutting) or aggradation .Through multiple field site visits over 4 years (and after various storm events), no major or significant channel degradation (head-cutting) or aggradation in the wash area from Bernard Street up to Lake Street has been observed.

Channel instability is generally caused by physiological changes in the wash or river such as sediment supply imbalance associated with gravel mining operation and poorly designed flood control improvements. Drastic changes in the hydrological condition of the river system could also be a contributing factor. The hydraulic study evaluated the stability of Temescal Wash by comparing the changes in the overall river bed and floodplain elevations using the following aerial topographic maps:

- Riverside County Flood Control District's 1969 Line Topo Map with 4-foot contour intervals (NGVD 1929):
  - Section 15, T5S and R5W
  - Section 16, T5S and R5W
- Riverside County Flood Control District's 2009 Orthophoto Map with 4-foot contour intervals (NAVD 1988):
  - Section 15, T5S and R5W
  - Section 16, T5S and R5W
- Project design aerial topographic map dated 2015 with 1-foot contour intervals (NAVD 1988)

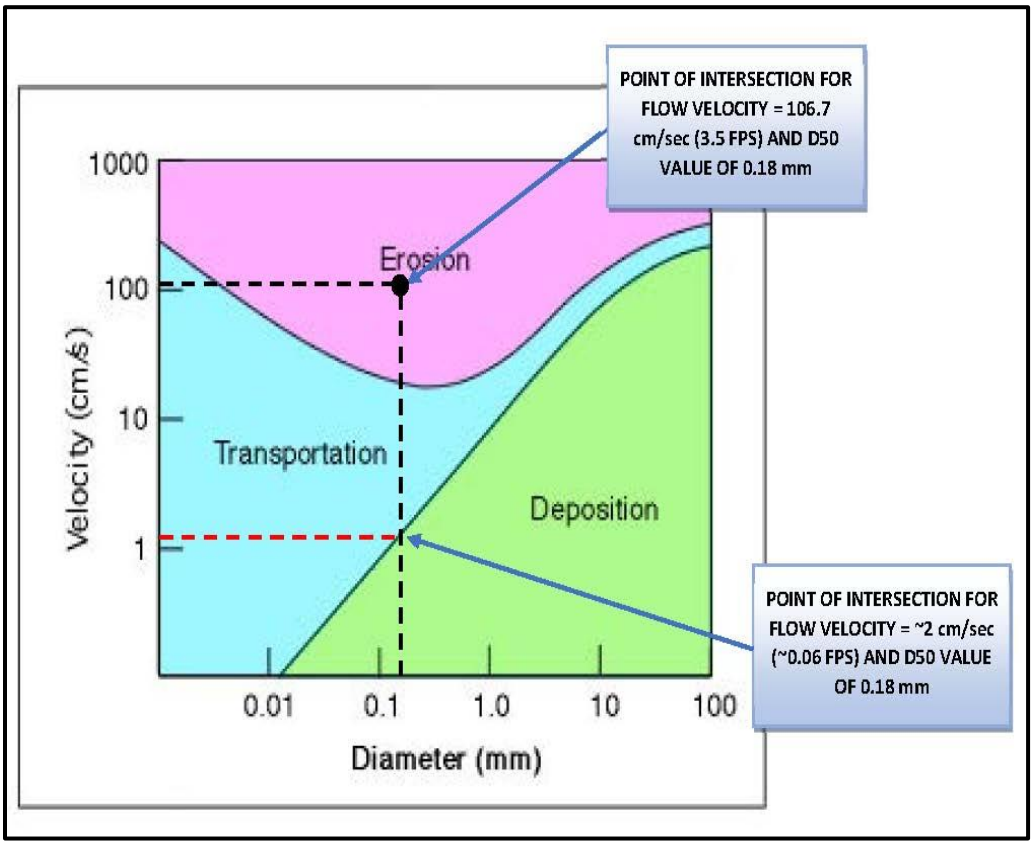

Figure 5: Hjulstrom's Diagram

The study evaluated the reach of Temescal Wash from Bernard Street culvert (formerly Larson Road) to Lake Street bridge. The results of the analysis are outlined below:

- Section 16 (Bernard Street culvert, formerly Larson Road): No appreciable change in elevations in the overbank area of Temescal Wash is apparent. However, the flowline elevation of the wash shown on the 1969 line topo map at the upstream side of the culvert is 1199.5 (NGVD 1929) or 1201.86 (NAVD 1988) while the 2009 orthophoto map shows it to be approximately elevation 1204.0. Due to heavy and dense vegetation existing in the 2009 orthophoto map, it is feasible that elevation 1204.0 does not reflect the true flow line elevation of the wash. The project design topo map (2015) shows elevation 1200.6 at roughly the same location. This could mean that a channel degradation of approximately 1.26 feet has occurred from 1969 to 2015, a period of 46 years, which translates to a long-term degradation rate of 0.03 feet per year which is not significant.

- Section 15 (existing Temescal Canyon Road Bridge): The flowline elevation of the wash shown on the 1969 line topo map is 1208.8 (NGVD 1929) or 1211.16 (NAVD 1988) while the 2009 orthophoto map shows it to be approximately elevation 1212.0. Again, due to heavy and dense vegetation existing in the 2009 orthophoto map, it is feasible that elevation 1212.0 does not reflect the true flow line elevation of the wash. The project design topo map (2015) shows elevation 1210.0 at roughly the same location in the wash. This could mean that a channel degradation of approximately

1.16 feet has occurred from 1969 to 2015, a period of 46 years, which translates to a long-term degradation rate of 0.03 feet per year which is not significant.

The results of the study indicate that an average degradation rate of approximately 0.03 feet per year (or 0.36 inches per year) can be expected, which is considered a minor change and it provides qualitative evidence about the long-term stability of Temescal Wash. The results of the initial hydraulics and channel stability assessment also indicate no substantial hydraulic changes will occur to the flow depth and flow velocity under the existing condition due to the construction of the bridge and proposed channel grading. Additionally, the results indicate that the risk of erosion or siltation will not significantly increase from existing to proposed conditions.

The Riverside County Flood Control District (RCFCD) and the Hydraulics Branch of Caltrans Headquarters have reviewed the Floodplain and Bridge Hydraulics and Scour Study Report (refer to Appendices H-1) in support of the original and shorter 306-foot long bridge and broader channel grading plan and did not voice their concern about the stream stability of the existing Temescal Wash nor the impact of the bridge to the overall stability of the wash. RCFCD and Caltrans subsequently approved the study report on October 31, 2016 and January 26, 2016, respectively.

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 site or off site?

Less than Significant Impact. Please refer to Checklist Question 8e response. Implementation of the proposed project will not significantly alter the existing drainage pattern of the project site, resulting in a less than significant impact to drainage.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact. As mentioned previously, the proposed project area is miniscule relative to the total watershed area tributary to Temescal Wash. It is anticipated that because the project site will add a minimal amount of impervious surfaces, the effect to the storm flow of Temescal Wash downstream of the project will be negligible and therefore will have no impact to the capacity of existing or planned stormwater drainage systems. However, construction of the project site could degrade existing stormwater quality due to the concrete bridge surface and roadway pavement. Therefore, implementation of the proposed project would include the installation of treatment BMPs that would remove pollutants from storm runoff generated by the project site.[30] Because treatment BMPs will be installed, impacts associated with this issue will be reduced to below a level of significance. No mitigation will be required.

Otherwise substantially degrade water quality?

Less than Significant Impact. Please refer to Checklist Question 8d and 8e responses. Implementation of the proposed project will not otherwise substantially degrade stormwater quality, resulting in a less than significant impact to stormwater.

[30] Water Quality Assessment Report: New Temescal Canyon Road Bridge and Roadway Project, Aguilar Consulting, Inc., November 30, 2016.

f) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazards delineation?

No Impact. The project does not include a residential component; therefore, it will not place housing within a 100-year flood hazard area, as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map. No impact related to this issue is anticipated to occur with the implementation of the proposed project and no mitigation is required.

g) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Less than Significant Impact. According to FEMA Flood Map (Number 06065C2007G) for the area, the project site is located within an area identified as a 100-year floodplain.[31] The project is therefore located within a regulatory floodway and also mapped as Zone AE, which means that the area is subject to inundation by the 1-percent-annual-chance flood event with Base Flood Elevations (BFEs). Although the proposed project will be within the 100-year floodplain, it will be designed to withstand floodwaters. Features such as the bridge deck will be built high enough so that floodwaters will not overflow the bridge. The bridge will be designed and constructed to allow anticipated flood flows to flow through unrestricted. Because the bridge will not impede or redirect flood flows, impacts related to this issue are considered to be less than significant and no mitigation is required.

h) 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?

***Less than Significant* Impact.** The nearest dam to the project site is Railroad Canyon Dam, located approximately 8 miles southeast of the project site. In the remote event of dam failure at the Railroad Canyon Dam, the project site will be exposed to flood risk or be within the dam inundation area.[32] Although the project site is within the potential dam inundation area for the Railroad Canyon Dam, occurrence of such an event is extremely remote according to the Dam Break Analysis from 1991[33], which concluded that Lake Elsinore will have sufficient capacity to accommodate the 12,000 acre-feet stored in the Dam should failure occur. Additionally, the proposed project will be designed and constructed as to allow anticipated flood flows to flow through unrestricted. For these reasons, potential impacts related to this issue are less than significant and no mitigation is required.

i) Expose people or structures to inundation by seiche, tsunami, or mudflow?

Less than Significant Impact. A tsunami is a series of waves generated in a body of water by a pulsating or abrupt disturbance that vertically displaces water. Inundation of the proposed project's site by a tsunami is highly unlikely as the project site is approximately 25.0 miles northeast of the Pacific Ocean. Seiches are oscillations in enclosed bodies of water that are caused by a number of factors, most often wind or seismic activity. As described in the City's General Plan, and AVSP PEIR, there is potential for a seiche to occur in Lake Elsinore during an earthquake. However, as stated in the AVSP PEIR, there is a low potential for seiche to occur at the site due to the lower elevation of the Lake relative to the project site, and because of the existing topographical features between the project site and the Lake.

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31 The term "100-year flood" is a measure of the size of the flood, not how often it occurs. The "100-year flood" is a flooding event that has a one percent chance of occurring in any given year.

32 Figure 3.9-1: "Dam Inundation Zone," Hydrology and Water Quality, City of Lake Elsinore General Plan FPEIR, City of Lake Elsinore, December 2011.

33 Hydrology and Water Quality, City of Lake Elsinore General Plan FPEIR, City of Lake Elsinore, December 2011.

A mudflow occurs when there is fast-moving water and a great volume of sediment and debris that surges down a slope, stream, canyon, arroyo, or gulch with tremendous force. They are similar to flash floods and can occur suddenly without time for adequate warning. Mudflows can ruin substantial improvements with the force of the flow itself and the burying or erosion of improvements by mud and debris. This type of event can be caused by a combination of events which include flooding, landsliding, or earthquake. However, for a mudflow event to occur, there must be fast-moving water and a great volume of sediment and debris. Without these two components, a mudslide is unlikely to occur.

The project site is in an area of the City where landslide susceptibility is not identified.[34] However, the project site's location in a floodplain, its general proximity to major earthquake fault systems, and its location to Temescal Wash indicates that the occurrence of a mud slide coming through the area is possible. Although there is a possibility that a mud slide could come through the area, the proposed project will be built to withstand floodwaters, which are a significant component of a mudslide. Because the proposed project will be designed to withstand floodwaters and debris flows and will be built to reduce the probability of floodwaters overflowing onto the bridge, impacts associated with mudslides will be reduced to below a level of significance and no mitigation measures are required.

10. LAND USE AND PLANNING

a) Physically divide an established community?

No Impact. The proposed project will replace the existing bridge with a new 4-lane bridge in an area that is developed with commercial mixed uses. The project site will not be located within or divide an existing neighborhood, nor will it introduce a barrier between existing or planned residential uses; therefore, no impact related to this issue will occur and no mitigation is required.

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?

No Impact. The proposed project is a roadway improvement to correct existing deficiencies. Implementation of the project does not require any amendments to City zoning designations or General Plan. The proposed is also consistent with Goal 2, Objective 2-2 of the AVSP, which describes the rerouting of Temescal Canyon Road, and relocation of the bridge over Temescal Wash. Therefore, no impact related to this issue will occur. No mitigation is required.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Less than Significant with Mitigation Incorporated. The project site is located within the Western Riverside Multiple Species Habitat Conservation Plan (WRMSHCP). This plan covers 1.26 million acres, and protects 146 native species of plants, and animals[35]. Section IV, Biological Resources above, outlines specific mitigation measures that will be implemented to ensure compliance with the WRMSHCP. Therefore, impacts related to habitat conservation and natural community conservation plans will be reduced to less than significant.

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[34] City of Lake Elsinore General Plan Program EIR 2011. Section 3.11 Geology and Soils, Slope Stability (p. 3.11-18).

[35] Western Riverside County Regional Conservation Authority. http://wrc-rca.org (Accessed 02/20/2017).

11. MINERAL RESOURCES

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less Than Significant Impact. Mineral resources present in the Alberhill include clay mineral resources and aggregates. According to the AVSP, central clay bearing zone is classified as Mineral Resource Zone (MRZ) 2, as it contains significant mineral deposits. The site is currently a vested mining operation, but is being phased out, in accordance with approved permits, as the site evolves into a residential community.[36] The mining operation is subject to Reclamation Plan RP-112 mitigation measures prior to final reclamation from development of the AVSP. The proposed relocation of the bridge and realignment of the roadway is consistent with the AVSP. Therefore, implementation of the proposed project will not significantly affect the availability of mineral resources in the project vicinity, a less than significant impact related to this issue would occur, and no mitigation is required.

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?

Less Than Significant Impact. According to the AVSP PEIR, development within the area will not result in the loss of availability of clay deposits within the site, as material will be extracted and stockpiled for future economic use. Further, the loss of a locally important resource is mitigated if future developments allow for complete recovery of the resource. The phasing concept discussed in 11a) above ensures the continuation of the clay mining activities and stockpiling of material to an economically feasible extent. Because the proposed project is consistent with the AVSP, which outlines this phasing out process, impacts related to this issue are less than significant. No mitigation is required.

12. NOISE

The analysis in this section of the Initial Study is based on the following report prepared for the project:

- Noise Technical Memorandum, Temescal Canyon Road Bridge and Roadway Project, LSA Associates, Inc., August 2017 (Appendix I).

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?

Less Than Significant Impact with Mitigation Incorporated. Existing noise in the project area is the result of traffic traveling on existing Temescal Canyon Road, Lake Street and I-15 in addition to the noise generated by the Pac Clay operation. Noise increases from the proposed project will be generated on a short-term and long-term basis. Short-term noise levels are associated with excavation, grading, and roadway construction. Short-term noise levels will be higher than existing ambient noise levels in the project area, but will cease upon project completion. Long-term noise levels will be associated with traffic noise on Temescal Canyon Road.

Temporary or periodic increases in ambient noise levels will occur during the construction of the proposed project. Construction of the proposed project is expected to require the use of earthmovers,

[36] City of Lake Elsinore General Plan, Chapter 4. Resource Protection and Preservation

bulldozers, water trucks, and pickup trucks. The maximum composite noise level will be 86 dBA L_{max} at a distance of 50 feet from an active construction site. The project may require the use of pile drivers. Pile driving generates noise levels of approximately 95 dBA Lmax at 50 feet. If pile driving is conducted concurrently with standard construction activities, the active construction area could potentially generate noise levels of 96 dBA Lmax at a distance of 50 feet.

The closest residence is located approximately 2,740 feet from the project construction areas and approximately 3,110 feet from potential pile driving. Therefore, the closest residence may be subject to short-term noise reaching 69 dBA Lmax generated by construction activities. Compliance with the construction hours specified by the City's Municipal Code and Caltrans Standard Specifications in Section 14-8.02 will be required to minimize construction noise impacts on land uses adjacent to the project site. The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA Lmax at a distance of 50 feet. The Contractor should use an alternative warning method instead of a sound signal unless required by safety laws. In addition, the Contractor shall equip all internal combustion engines with the manufacturer-recommended muffler and shall not operate any internal combustion engine on the job site without its appropriate muffler.

Because construction activities will generate noise in excess of City noise standards, **Mitigation Measures NOS-01** through **NOS-05** have been identified. Adherence to these measures in addition to compliance with City noise regulations will reduce impacts associated with this issue to a less than significant level.

Mitigation Measures:

NOS-01 The project contractor shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.

NOS-02 The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors to the west of the construction site.

NOS-03 The construction contractor shall locate equipment staging in areas that shall create the greatest distance between construction-related noise sources and noise-sensitive receptors to the west of the site during all project construction.

NOS-04 During all project site construction activities, the construction contractor shall limit all construction-related activities that would result in high noise levels to between the hours of 6:00 a.m. and 9:00 p.m. Monday through Saturday. No construction activities shall be allowed on Sundays and public holidays.

NOS-05 Sound control during the construction phase of the project shall conform to the provisions in Section 7-1.01I, Sound Control Requirements, of the Caltrans Standard Specifications and these special provisions. The noise level from the contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA at a distance of 15 meters (50 feet). This requirement in no way relieves the contractor from responsibility for complying with local ordinances regulating noise level. The noise level requirements shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixers, and transient equipment that may or may not be owned by the contractor. The use of loud signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel. Full compensation for conforming to the requirements of this section would be considered as included in the process paid for various contract items of work involved.

b) **Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

Less Than Significant Impact. Vibration refers to groundborne noise and perceptible motion. Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernable but without the accompanying effects (e.g., shaking of a building). Building damage is not a factor for normal projects, with the occasional exception of blasting and pile driving during construction. Problems with groundborne vibration and noise are usually localized to areas within about 100 feet from the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 feet. The level of vibration is not excessive or permanent, nor will it cause any damage to the buildings. Therefore, impacts from construction-related groundborne vibration construction will be less than significant and no mitigation is required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. Future traffic noise levels along Temescal Canyon Road were determined using either the peak-hour traffic volumes or the worst-case traffic operations (prior to speed degradation), whichever is lower. The worst-case traffic condition, which results in the highest traffic noise level, is based on the maximum number of vehicles that can typically travel in a given lane while still resulting in free-flowing traffic conditions. This traffic condition is assumed to be LOS D/E, which corresponds to 1,950 vplph on the highway mainline, 900 vplph on the highway on-ramps, 875 vplph on 4-lane local roadways (two lanes in each direction), and 775 vplph on 2-lane local roadways (one lane in each direction). The peak-hour traffic volumes were obtained from the Temescal Canyon Wash Bridge, Lake Elsinore-Traffic Volumes Memorandum (LLG 2017). The a.m. peak-hour traffic volume was selected for the peak-hour traffic volume because the results of the long-term 24-hour noise level measurement showed that the peak traffic noise hour occurs during this period.

Table C summarizes the TNM results for the Existing, Future No Build, and Future Build conditions. As shown in Table C all the modeled receptors represent the highest expected traffic noise level for reporting purposes. There are no receptors within the project area that have a Noise Abatement Criteria (NAC) that require mitigation for noise impact. Long term noise impacts are less than significant.

Table C: Predicted Future Noise Levels

Receptor No.	Location	Land Use	No. of Dwelling Units/ Receptors	Existing Noise Level, dBA Leq(h)	Future (2040) Noise Levels, dBA Leq(h)			
					Future No Build	Future Build	Future Build Minus No Build Conditions	Future Build Minus Existing Conditions
R-1	14881 Temescal Canyon Road	Light Industrial	1	74	76	77	1	3
R-2	Temescal Canyon Road	Vacant Land	1	68	69	70	1	2

Table C: Predicted Future Noise Levels

Receptor No.	Location	Land Use	No. of Dwelling Units/ Receptors	Existing Noise Level, dBA Leq(h)	Future (2040) Noise Levels, dBA Leq(h)			
					Future No Build	Future Build	Future Build Minus No Build Conditions	Future Build Minus Existing Conditions
R-3	16800 Bernard Street	Industrial	1	66	67	68	1	2
R-4	16800 Bernard Street	Industrial	1	64	65	66	1	2
R-5	Temescal Canyon Road	Vacant Land	1	75	77	71	-6	-4

dB = decibel(s)
dBA = A-weighted decibel(s)
L_{eq}(h) =1-hour A-weighted equivalent continuous sound level

Source: Noise Technical Memorandum, Temescal Canyon Road Bridge and Roadway Project, LSA Associates, Inc., August 2017 (Appendix I).

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact with Mitigation Incorporated. Refer to response to Checklist Question 12 a.

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?

No Impact. Refer to response to question Hazards and Hazardous Materials (e). Additionally, the proposed project is a roadway project that will not have people residing or working on the project site for long periods of time. Taking into consideration these factors, no impacts related to this issue will occur and no mitigation is required.

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?

No Impact. The proposed project site is not located within the vicinity of a private airstrip; therefore, no impact associated with this issue will occur and mitigation is not required.

13. POPULATION AND HOUSING

a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

No Impact. The proposed project would result in the replacement of an existing 2-lane bridge with a new 4-lane bridge, and realignment of the roadway to the north. The purpose of the proposed project is to improve public safety and allow conveyance of the Temescal Wash 100-year flood waters;

therefore, it will not induce growth like the development of a residential, commercial, or industrial use. The extent to which new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth inducing effect of a project. The construction of the proposed project will create short-term construction jobs; however, these short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area. Therefore, construction of the proposed project will not generate a permanent increase in population within the project area. Infrastructure, including roads, sewers, water, and electricity, already exists around the project site. Because the proposed project will remediate existing deficiencies in current roadway configurations, the relocation of the bridge will not induce indirect growth above that which currently exists. Therefore, no impacts associated with this issue will occur and no mitigation is required.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

***No Impact*.** The proposed project site consists of the construction and operation of a bridge and associated roadway improvements with no residential structures located within the project limits. Because there are no residential structures within the project limits, no displacement of housing or residents will occur and construction of replacement housing is not required. No impact associated with this issue will occur and no mitigation is necessary.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

***No Impact*.** The proposed project will result in the construction of a 4-lane bridge and will not result in the displacement of people. Because the proposed project will not result in the displacement of people, the construction of replacement housing is not required. Therefore, no impacts associated with this impact will occur and no mitigation is required.

14. 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?

***No Impact*.** The proposed project will result in the construction of a 4–lane bridge and roadway improvements that will not require fire protection services. Because the proposed project will not require fire protection services, no impacts will occur with respect to the provision of fire protection services and no mitigation is required.

b) Police Protection?

***No Impact*.** Implementation of the proposed project will result in the construction of a new 4-lane bridge and roadway realignment. It is anticipated that no police services will be needed to implement the proposed project. Therefore, no impacts related to this issue will occur.

c) Schools?

***No Impact*.** The proposed project consists of a roadway improvement project and will not consist of building residential units that will house school-age children. It is anticipated that the implementation

of the proposed project will not affect schools in the nearby area as the project is a roadway improvement and will not generate additional students. The proposed project will not reduce the level of service at school facilities. Therefore, no impacts associated with this issue will occur and no mitigation is required.

d) Parks?

***No Impact*.** The proposed project does not include a residential component and will not contribute to a direct increase in population. As there is no direct increase in population resulting from the proposed project, no new demand on existing park facilities will occur. Therefore, no impacts associated with this issue will occur and no mitigation is necessary.

e) Other Public Facilities?

***No Impact*.** The proposed project is a roadway improvement project and, as a result, will not cause an increase in population resulting in a significant impact on other public facilities such as libraries and hospital services. The proposed project does not include a residential component and will not contribute to a direct increase in population. As there is no direct increase in population resulting from the proposed project, no new significant demand on library or medical facilities will occur. Therefore, no impacts associated with this issue will occur and no mitigation is required.

15. RECREATION

a) Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

***No Impact*.** The proposed project is a roadway improvement project that will improve drainage in the area of the crossing at Temescal Wash. The proposed project will not create additional demand on existing neighborhood or regional parks or on other recreational facilities. Because the proposed project will not create an additional demand on existing recreational facilities, it will not cause substantial physical deterioration on existing facilities. Therefore, no impacts will occur and no mitigation is required.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

***No Impact*.** The proposed project is the construction and operation of a 4-lane bridge over Temescal Wash. This roadway segment is designated as a Major Road by the City's General Plan and will include a six-foot bike lane on both sides of the roadway. This does not constitute an expansion of recreational facilities, as the addition of the bike lane will be included within the existing right-of-way and on the proposed bridge. The proposed project will therefore not have an adverse physical effect on the environment as a result of expanding recreational facilities, impacts related to this issue are less than significant, and no mitigation is required.

16. TRANSPORTATION AND TRAFFIC

The analysis in this section of the Initial Study is based on the following report prepared for the project:

- Temescal Canyon Wash Bridge, Lake Elsinore – Revised Traffic Assessment, Linscott, Law and Greenspan, May 5, 2017 (Appendix J)

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?

Less Than Significant Impact. The proposed project will add some additional traffic along area roadways during the construction phase. However, this traffic will be minimal and temporary in nature. Temescal Canyon Road will remain open to vehicle and non-motorized modes of transportation during construction. Any detours will be managed in an effective manner. The proposed project will construct a 4-lane bridge that will transition to a 2-lane roadway on either side of the bridge. The bridge and roadway will be designed to include sidewalks and a on-street bike lane to be consistent with the City's General Plan Circulation Plan and the AVSP. Therefore, impacts associated with this issue are considered to be less than significant. No mitigation is required.

b) Conflict with an applicable congestion management program, including not limited to a level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

No Impact. Temescal Canyon Road, west of Lake Street (Bridge Portion) is predicted to operate at LOS A with the proposed project and LOS C without the project in Year 2021. Temescal Canyon Road, west of Lake Street (Adjoining Roadway) in Year 2021 will operate at LOS C with and without the project.[37] According to City of Lake Elsinore criteria, LOS D is the minimum acceptable condition that should be maintained along all roadway segments. Because the proposed project will help maintain the City's LOS standard of D, no impacts associated with this issue will occur. No mitigation is required.

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?

No Impact. Refer to response to question Hazards and Hazardous Materials (e). The proposed project will not cause any changes to air traffic volumes or air traffic patterns as the project is the construction of roadway and bridge. Therefore, no impact related to this issue will occur and no mitigation is required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The construction of the proposed 4-lane bridge of City Creek will remove the existing hazardous design features by elevating the roadway over City Creek and improving roadway drainage. The design of the proposed project does not include any sharp curves or dangerous intersections. Therefore, the project will not create a substantial increase in hazards due to a design feature but will remediate an existing bridge hazard and result in a beneficial impact. Impacts associated with this issue are less than significant and no mitigation is required.

e) Result in inadequate emergency access?

Less Than Significant Impact. The proposed project will be required to be designed, constructed, and maintained to provide for adequate emergency access and evacuation. Construction activities,

[37] Temescal Canyon Wash Bridge, Lake Elsinore – Revised Traffic Assessment, Linscott, Law and Greenspan, May 5, 2017 (Appendix I), Table 4: Year 2021 Conditions Daily Roadway Segment Capacity Analysis Summary.

which may temporarily restrict vehicular traffic, will be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. The proposed project design will be submitted to and approved by the City's Fire and Police Departments prior the issuance of construction permits.

In the existing condition flood conditions limit emergency access along Temescal Canyon Road because the current bridge over tops during flood events and the roadway becomes impassable. Upon the completion of the bridge emergency access in this portion of the City will be improved. Emergency vehicles will be able to cross Temescal Canyon Wash more easily during heavy rains or flooding. A less than significant impact related to this issue will occur and no mitigation is required.

f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle lanes, sidewalks, etc.)?

***No Impact*.** The proposed project will result in the replacement of a substandard 2-lane bridge on Temescal Wash with a new 4-lane bridge, which includes sidewalks and a bike lane, which will support alternative transportation such as walking and bicycling. Because the proposed project will enhance existing infrastructure that supports alternative transportation options and because the proposed project will comply with adopted policies, plans, or programs supporting alternative transportation, no impacts associated with this issue are anticipated to occur and no mitigation is required.

17. TRIBAL CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

***Less than Significant Impact with Mitigation Incorporated*.** The Native American Heritage Commission (NAHC) was contacted on February 23, 2016 to request a Sacred Lands File (SLF) search a consultation list for the proposed project site. The NAHC responded with negative results for the SLF, indicating that no Native American cultural resources are present in the project area. The NAHC also provided a list of 21 Native American contacts, representing 17 Native American groups, designated for consultation.

The 21 individuals identified by the NAHC were contacted via certified mail and email on March 2, 2016, followed by additional emails, mail, and telephone calls. The Luiseño Band of Mission Indians indicated that the project is potentially in a Traditional Cultural Property, but had no recommendations and deferred to Pechanga. AB 52 was enacted on July 1, 2015. AB 52 added a new requirement for Native American consultation under CEQA and recognized a new cultural resource type, the tribal cultural resource (TCR). The City initiated Native American consultation pursuant to AB 52

requirements by sending "Notice of Consultation Opportunity" letters to the following five tribes on March 15, 2016: Soboba Band of Luiseño Indians, Rincon Band of Luiseño Indians, Morongo Band of Mission Indians, Agua Caliente Band of Cahuilla Indians, and Pechanga Band of Luiseño Indians. Two tribes (i.e., Soboba Band, and Pechanga Band) responded and requested further consultation. Consultation with these tribes was initiated in April 2016, and was concluded on October 11, 2017. The Soboba Band of Luiseño Indians indicated that the project area is regarded as culturally sensitive by the Soboba. As a result, **Mitigation Measures TCR-01** through **TCR-09** were formulated in consultation with the Pechanga Band and the Soboba Band and will ensure that related impacts to cultural resources will be reduced to less than significant.

Mitigation Measures:

TCR-01 At least 30 days prior to any grading, excavation and/or other ground-disturbing activities on the Project site, the City of Lake Elsinore shall retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology and listed on the Register of Professional Archaeologists (RPA) or the County of Riverside list of qualified archaeologists to monitor all ground-disturbing activities.

TCR-02 At least 30 days prior to excavation within any previously undisturbed native soils, the City shall contact the Consulting Tribes to notify each Tribe of excavation activities and coordinate with the Tribes to develop Monitoring Agreements. The Agreements shall address the designation, responsibilities, and participation of Native American Tribal monitors during excavation and other ground disturbing activities within undisturbed native soils and construction scheduling. Native American monitoring shall be limited to only those periods during project construction where excavation within previously undisturbed areas is occurring. Ground disturbing activities within previously disturbed areas shall not require notification, monitoring or an Agreement.

TCR-03 The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:

a. Project grading and development scheduling;

b. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the City of Lake Elsinore; and

c. The protocols and stipulations that the City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resources.

TCR-04 Prior to any grading, excavation and/or other ground-disturbing activities on the Project site, the Project archaeologist and the Monitoring Tribe(s) shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. The City's construction manager shall ensure that construction personnel are made available for and attend the training and shall retain documentation demonstrating attendance.

TCR-05 In accordance with the agreement required in CR-2, the Project archaeologist and designated tribal monitor(s) assigned to the project by the Luiseño Tribe(s) shall have the authority to stop and redirect excavation in order to evaluate the significance of any archaeological resources discovered on the property.

TCR-06 All artifacts discovered at the development site shall be inventoried and analyzed by the Project archaeologist and Native American monitor(s). If any cultural materials of Native American origin are discovered, all activities in the immediate vicinity of the find (within a 50-foot radius) shall stop. The Project archaeologist and Native American monitor(s) shall analyze the Native American cultural materials for identification as everyday life and/or religious or sacred items, cultural affiliation, temporal placement, and function, as deemed possible. The significance of Native American resources shall be evaluated in accordance with the provisions of CEQA and shall consider the religious beliefs, customs, and practices of the Luiseño tribes. All items found in association with Native American human remains shall be considered grave goods or sacred in origin and subject to special handling.

The City and/or landowner shall relinquish ownership of all cultural resources. Native American cultural materials that cannot be avoided or relocated at the Project site shall be prepared in a manner for curation. Within a reasonable amount of time, the Project archaeological, following consultation with the Monitoring Tribe(s), shall deliver the materials to a qualified repository in Riverside County that meets or exceeds federal standards per 36 CFR Part 79 and which shall be made available to all qualified researchers and tribal representatives.

TCR-07 Treatment and Disposition of Cultural Resources: In the event that Native American cultural resources are inadvertently discovered during the course of grading for this Project. The following procedures will be carried out for treatment and disposition of the discoveries:

1. Temporary On-Site Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite. The removal of any cultural materials from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process; and

2. Treatment and Final Disposition: The agency shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all cultural materials and non- human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the cultural materials through one or more of the following methods and provide the City of Lake Elsinore Planning Department, Caltrans and Consulting Tribe(s)

    a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

    b. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred,

including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation:

c. At the completion of grading, excavation and ground disturbing activities on the site a Phase IV Monitoring Report shall be submitted to the City of Lake Elsinore Planning Department, Caltrans and Consulting Tribe(s) documenting monitoring activities conducted by the project Archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City of Lake Elsinore Planning Department,

TCR-08 All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.

TCR-09 The Project archaeologist shall prepare a final archaeological report within sixty (60) days of completion of the Project. The report shall follow ARMR Guidelines and City of Lake Elsinore requirements and shall include at a minimum: a discussion of monitoring methods and techniques uses, the results of the monitoring program including any cultural materials recovered, an inventory of any resources recovered, updated DPR forms, if any, and any other site(s) identified, final disposition of the resources, and any additional recommendations. A final copy shall be submitted to the City of Lake Elsinore, the Eastern Information Center and the monitoring tribe(s).

18. UTILITIES AND SERVICE SYSTEMS

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

***No Impact*.** The proposed project will not generate wastewater as the proposed project is a bridge replacement and roadway improvement project. Because the proposed project will not generate wastewater, the wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB) will not be exceeded. Therefore, no impact will occur and no mitigation required.

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?

***No Impact*.** The proposed project will result in the construction of a new 4-lane bridge to accommodate Temescal Wash 100-year flood waters. Implementation of the proposed project will not require water or wastewater services as the project is a roadway improvement project that does not require water for roadway or median landscaping. Because the proposed project will not require water or wastewater services, the construction of additional water or wastewater treatment facilities or the expansion of existing facilities to serve the project will not occur. Therefore, no impacts associated with this issue will occur and no mitigation is required.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

***Less than Significant Impact*.** Development of the proposed project will result in an increase in the amount of impermeable surfaces and, therefore, an increase in surface runoff. As previously stated, construction projects that disturb more than one acre require NPDES permits. Under the NPDES permits, project proponents are required to prepare an SWPPP. Adherence to BMPs specified in the SWPPP is expected to reduce potential water quality impacts associated with this issue to a less than significant level. It is anticipated that because BMPs will be installed on the roadway, the construction of these features will be less than significant as construction will occur within an existing commercial mixed use area. Because the BMPs include features to mitigate potential impacts to water quality from project drainage, the construction, operation, and maintenance of the project drainage features, including features associated with the BMPs, will not result in significant impacts to water quality.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The proposed project is a roadway improvement project consisting of the construction of a new 4-lane bridge and new bridge approaches. Because the proposed project will not require water within the service area, there is no need for new water sources or water entitlements (refer to response 16b). Therefore, no impacts associated with sufficient water supply will occur with implementation of the proposed project and no mitigation is required.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The proposed project will not require services provided by a wastewater treatment provider as the project is a roadway improvement project that will not generate wastewater. Therefore, no impacts related to this issue will occur and no mitigation is required.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

***No Impact*.** Solid waste collection is a "demand-responsive" service and current service levels can be expanded and funded through user fees without difficulty. However, because the proposed project consists of a bridge replacement and roadway realignment and does not include the demolition of the existing bridge or roadway, it is anticipated that no solid waste disposal services will be required. Therefore, no impacts related to this issue will occur and no mitigation is required.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

***No Impact*.** The proposed project will result in the construction and operation of a new bridge, and realigned roadway. The project does not involve demolition of the existing bridge or roadway. During the operation of the bridge, it is anticipated that no solid waste will be generated. Therefore, no impacts related to this issue will occur and no mitigation is required.

19. MANDATORY FINDINGS OF SIGNIFICANCE

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?

***Less Than Significant with Mitigation Incorporated*.** As stated in this Initial Study, although the proposed project will affect the quality of the environment with respect to the habitat of a plant or animal communities, the mitigation identified in the Initial Study will reduce such impacts through the provision of on- and off-site mitigation lands or habitat for the species that will be affected. Similarly, although the project will reduce habitat of a rare or endangered plant or animal, mitigation identified in the Initial Study will reduce impacts through the preparation and implementation of a revegetation plan for the project site, replacement of lost oak trees at a 10:1 ratio, protection of the site from invasive species and by the eradication of invasive species, protection of nesting birds, and protection of the site from toxic spills during construction. Implementation of **Mitigation Measures BIO-01** through **BIO-25** will ensure that habitats are protected to the maximum extent possible. The project does not impact or eliminate important examples of the major periods of California history or prehistory. Therefore, impacts related to this issue are considered to be less than significant with implementation of mitigation identified.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerate" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

***Less than Significant Impact*.** The proposed project site is currently an extensively mined, commercial mixed use area. The project has the potential to result in both short-term and long-term impacts to the environment. Grading and related site preparation activities are expected to generate short-term impacts; however, while short-term impacts are anticipated to occur, the achievement of short-term environmental goals will not be at the expense of long-term environmental goals. Additionally, the proposed project is consistent with the City's General Plan and AVSP. The project is therefore part of the proposed growth of the area. As such, impacts related to this issue are considered to be less than significant.

c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?

***Less Than Significant Impact*.** Implementation of the of the proposed project may result in direct and indirect impacts to human beings, such as exposure to hazards associated with strong seismic ground-shaking, increased traffic, and increased noise. However, based on the information provided, such impacts are anticipated to be less than significant due to adherence to standard requirements and identified mitigation measures. Therefore no mitigation will be required.

4.0 MITIGATION MONITORING AND REPORTING PLAN

4.1 SUMMARY OF MITIGATION MEASURES

AIR QUALITY

AIR-01 During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions will be controlled by regular watering or other dust preventive measures using the following procedures, as specified in the South Coast Air Quality Management District (SCAQMD) Rule 403. All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust. Watering will occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. All material transported on site or off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust. The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized so as to prevent excessive amounts of dust. These control techniques will be indicated in project specifications. Visible dust beyond the property line emanating from the project will be prevented to the maximum extent feasible.

AIR-02 Project grading plans will show the duration of construction. Ozone precursor emissions from construction equipment vehicles will be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications.

AIR-03 All trucks that are to haul excavated or graded material on site will comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4), as amended, regarding the prevention of such material spilling onto public streets and roads. The contractor shall provide periodic reporting documents to the City to prove and ensure compliance.

AIR-04 The contractor will adhere to the California Department of Transportation (Caltrans) Standard Specifications for Construction (Sections 14.9 02 and 14 9.03).

AIR-05 All construction vehicles both on and off site shall be prohibited from idling in excess of 5 minutes. This requirement shall be provided as a bid or contract specification with contractors.

AIR-06 Construction trucks shall use of 2010 model year diesel haul trucks that conform to 2010 U.S. EPA truck standards or newer diesel haul trucks (e.g., material delivery trucks and soil import/export) during construction. This requirement shall be provided as a bid or contract specification with contractors. The contractor shall provide periodic reporting documents to the City to prove and ensure compliance.

AIR-07 The contractor shall use Tier 4 emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower. This requirement shall be provided as a bid or contract specification with contractors.

BIOLOGICAL RESOURCES

BIO-01 Project construction and vegetation removal shall be completed outside of general bird breeding season (typically set as February 15 through August 31).

BIO-02 In the event that vegetation removal cannot be conducted outside the bird breeding season, focused surveys shall be conducted by a qualified biologist within three days prior to vegetation removal activities. Should nesting birds be found, an exclusionary buffer shall be established by a qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer shall be clearly marked in the field by construction personnel under guidance of the qualified biologist, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.

BIO-03 Prior to project construction activities, a pre-construction nesting bird survey will be conducted over the entire project site by a qualified biologist within three days prior to construction activities.

BIO-04 If nesting birds be found, an exclusionary buffer shall be established by a qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer shall be clearly marked in the field by construction personnel under guidance of the qualified biologist, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.

BIO-05 Nesting bird habitat within the construction footprint of the project shall be resurveyed during the general bird breeding season if there is a lapse in construction activities longer than seven days..

BIO-06 **Burrowing Owls.** Prior to the start of any vegetation removal or ground-disturbing activities, a pre-construction clearance survey for burrowing owls shall be conducted to ensure that burrowing owls remain absent, and impacts to any occupied burrows do not occur. In accordance with the *Staff Report on Burrowing Owl Mitigation,*[38] two pre-construction clearance surveys shall be conducted 14 days and 24 hours, respectively, prior to any vegetation removal or ground-disturbing activities. In the event this species is not identified onsite, no further mitigation is required. If during the pre-construction burrowing owl survey, this species is found to occupy the site, **Mitigation Measure BIO-07** shall be required.

BIO-07 In the event burrowing owls are identified during the survey periods, the City shall contact the California Department of Fish and Wildlife (CDFW) to develop a burrowing owl relocation and conservation strategy. Prior to ground-disturbing activities, the project applicant shall take the following actions:

- A minimum 75-meter (250-foot) buffer shall be provided around any active nest until fledging has occurred. Following fledging, owls may be passively relocated (use of one-way doors and collapse of burrows) by a qualified biologist.
- If impacts to occupied (non-nesting) burrows are unavoidable, onsite passive relocation techniques, as approved by the CDFW, may be employed to encourage owls to move to alternative burrows outside of the impact area.

[38] *Staff Report on Burrowing Owl Mitigation*. State of California Natural Resources Agency, California Department of Fish and Game. March 2012.

- If relocation of the owls is approved for the site by the CDFW, the City shall require the developer to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan must include all of the following:
  - The location of the nest and owls proposed for relocation.
  - The location of the proposed relocation site.
  - The number of owls involved and the time of year when the relocation is proposed to take place.
  - The name and credentials of the biologist who shall be retained to supervise the relocation.
  - The proposed method of capture and transport for the owls to the new site.
  - A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).
  - A description of efforts and funding support proposed to monitor the relocation.

BIO-08 Prior to clearing or construction, highly visible barriers (such as orange construction fencing) shall be installed along the boundaries of the project footprint. All construction equipment shall be operated in a manner to prevent accidental damage to areas outside the project footprint. No structure of any kind, or incidental storage of equipment or supplies, shall be allowed within these protected zones. Silt fence barriers shall be installed at the project boundary to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned grading activities.

BIO-09 All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities shall occur in developed or designated non-sensitive upland habitat areas. The designated upland areas shall be located in such a manner as to prevent any spill runoff from entering waters of the U.S.

BIO-10 A biologist shall monitor construction for the duration of the project construction to ensure that vegetation removal, Best Management Practices (BMPs), and all avoidance and minimization measures are properly constructed and followed.

BIO-11 A weed abatement program shall be developed by the City of Lake Elsinore to minimize the importation of non-native plant material during and after construction. Eradication strategies shall be employed should an invasion occur.

BIO-12 The portions of the Temescal Wash affected by the project shall be recontoured to its original grades.

BIO-13 During construction, the construction contractor shall inspect and clean construction equipment at the beginning of each day and prior to transporting equipment from one project location to another.

BIO-14 During construction, soil and vegetation disturbance shall be minimized to the greatest extent feasible.

BIO-15 During construction, the construction contractor shall ensure that all active portions of the construction site are watered as necessary to prevent excessive amounts of dust.

BIO-16• During construction, soil, gravel, and rock shall be obtained from weed-free sources.

BIO-17 Only certified weed-free straw, mulch, and/or fiber rolls shall be used for erosion control.

BIO-18 After construction, affected areas adjacent to native vegetation shall be revegetated with plant species that are native to the vicinity as approved by the District Biologist.

BIO-19 After construction, all revegetated areas shall avoid the use of species listed on Cal-IPC's California Invasive Plant Inventory that have a high or moderate rating.

BIO-20 Erosion control and/or revegetation sites shall be monitored after construction to detect and control the introduction/invasion of nonnative species. The monitoring period shall be determined in consultation with resource agencies.

BIO-21 Eradication procedures (e.g., spraying and/or hand weeding) shall be outlined should an infestation occur; the use of herbicides shall be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the District Biologist.

BIO-22 All woody invasive species (e.g., tamarisk and eucalyptus trees) shall be removed from the project limits.

BIO-23 A Habitat Mitigation and Monitoring Plan (HMMP) for the 6.22-acre on-site restoration area shall be prepared and implemented by the project.

1. Remove non-native trees and shrubs from the reaches of Temescal Creek located outside of the grading limits. Examples of species to be removed are eucalyptus, tamarisk, and tree tobacco. Stumps will be treated with herbicide to prevent re-sprouting.

2. Establish cottonwood, arroyo willow, mule fat, and elderberry and other tree and shrub riparian species using at least 1-gallon container stock. Planting and irrigation will be installed in the relocated low-flow trapezoidal channel and in the excavated and widened channel bed/terrace of various widths upstream and downstream of the bridge. The channel bed will be 8 to 10 feet lower than existing grade and the channel bed will be excavated down 5 to 8 feet. Groundwater is possibly 10 feet below the existing ground level and establishment of this habitat would be dependent on appropriate hydrology. Hydrologic conditions within the restoration area would be determined prior to the preparation of the HMMP.

3. Approximately five coast live oak trees will be removed by the project. To compensate for the loss of coast live oak trees, oak trees will be replaced at a 10:1 replacement ratio on either side of the new and old road alignment within the transitional upland area. Mulch, bark, acorns, and branches from the existing trees will be saved to serve as mulch around the planted oak saplings. The oaks will be irrigated during establishment period. The number of replacement oak trees is estimated to be 50 but the actual number will be determined after completion of an arborist inventory prior to tree removal.

4. Create native coastal sage scrub habitat (CSS) in the adjacent transitional upland areas. A diversity of common shrub, forbs, and annuals will be seeded in the areas adjacent to the riparian areas and streambed. The CSS will also be seeded around the oak trees. The upland areas will be irrigated for the first three years to ensure rapid establishment.

5. Dedicate the restoration area as a long-term conservation easement.

6. Planting will be implemented using standard practices used by professional native landscaping companies, arborists, and irrigation installers. Creating natural stream characteristics after excavation of the channel bed and completion of the new streambed alignment will be guided by criteria described the 2012 function-based framework for restoration projects as recommended by the U.S. Army Corps of Engineers (USACE) and USFWS (Harmon, et al. 2012).

7. The HMMP will include an implementation plan, site preparation, seed and plant material, installation methods, performance standards, maintenance and monitoring success criteria, and reporting measures. The mitigation area will be maintained until performance standards are achieved, which is anticipated to be approximately five years.

BIO-24 The additional 1.76 acres of mitigation shall be acquired off site through one of the following options:

- **Option 1:** Purchase of 1.76 acres of restoration credits from a CDFW-approved mitigation bank or habitat conservation organization.
- **Option 2:** Provide 1.76 acres of mitigation on City-owned property. Provide long-term habitat restoration/enhancement and management with a non-wasting endowment for an existing fairy shrimp conservation area. An HMMP would be prepared and the lands would be managed by a CDFW-approved conservation organization.
- **Option 3:** RCA and Wildlife Agency-approved mitigation site for 1.76 acres. A restoration or enhancement mitigation opportunity, such as on an RCA conserved property within the MSHCP, may become available by the time the project is ready to purchase off-site mitigation and provide appropriate funding for restoration/enhancement activities. It would preferably be located in or along Temescal Wash.

The preferred option shall be selected prior to any vegetation removal or ground disturbance associated with the proposed project and the City shall notify the RCA and Wildlife Agencies of the selected option immediately after the decision has been made. Initiation of the selected option shall also occur prior to vegetation removal or any ground disturbance, but may be finalized/completed within six months of the start of construction. If necessary, any extension of the off-site mitigation option should be done through a request submitted to RCA and the Wildlife Agencies.

BIO-25• Prior to construction, a Caltrans-approved bat biologist shall conduct a bat assessment survey to determine the presence or absence of bat species that may occur within the project limits. Should the presence of bat species be determined during this assessment, the following measures shall be implemented to address potential impacts to bats.

- Project-related construction activities shall occur outside of the bat maternity roosting season (April 1–August 31), if feasible. Should such activities occur during the maternity roosting season (April 1–August 31), the following measures shall be implemented to minimize potential impacts to day-roosting bats (including maternity colonies) from project construction.
- Nighttime exit counts and acoustic surveys shall be performed by a qualified bat biologist at structures that may be subject to project-related impacts. These surveys shall be performed during the recognized bat maternity season (April 1–August 31, but preferably in June or July), and as far in advance of construction as possible in order to provide adequate time for mitigation planning.

- Construction activities within 200 feet of structures housing maternity colonies shall be coordinated with a Caltrans-approved bat biologist and the California Department of Fish and Wildlife.
- If direct impacts to bat-roosting habitat are anticipated, humane evictions and exclusions of roosting bats shall be performed under the supervision of a Caltrans-approved bat biologist after August 31 in the fall (September or October) prior to any work activities that would result in direct impacts or direct mortality to roosting bats. This action shall be performed in coordination with the California Department of Fish and Wildlife. To avoid potential mortality of flightless juvenile bats, evictions and exclusions of bats cannot be performed during the maternity season (April 1–August 31). Winter months are also inappropriate for bat eviction because not all individuals in a roost will emerge on any given night. In addition, long-distance movements to other roost sites are more difficult during the winter when prey availability is scarce, resulting in high mortality rates of evicted bats.
- If permanent, direct impacts to bat-roosting habitat are anticipated and/or if a humane eviction/exclusion is performed, alternate permanent roosting habitat shall be provided prior to the eviction/exclusion of bats from that structure to ensure no net loss of bat-roosting habitat. This action shall be coordinated with the California Department of Fish and Wildlife, and the design, numbers, and locations of these roost structures shall be determined in consultation with a Caltrans-approved bat biologist to ensure that the installed habitat will provide adequate mitigation for impacts.
- The loss of a night roost can negatively affect the use of a foraging area, and consequently may result in reduced fecundity in species that are already slow to reproduce. If night roosting is confirmed at any of the structures within the proposed project area, work shall be limited to the daylight hours to the greatest extent feasible to avoid potential disruption of foraging. If night work cannot be avoided, night lighting shall be focused only on the area of direct work, airspace access to and from the roost features of the structure shall not be obstructed, and light spillover into the adjacent foraging areas shall be minimized to the greatest extent feasible.
- All mature trees to be removed as part of the project evaluated by a qualified bat biologist for their potential to support roosting bats. Trees that are identified as suitable bat roost sites shall be removed using a two-step process that occurs over a 2-day period. On Day 1, branches and limbs that do not contain crevices or cavities shall be removed using hand tools or chainsaws. The goal is to create a disturbance sufficient to cause any bats roosting in the tree to leave that night and not return, but not at a level of intensity that will cause bats to fly out of the tree during the disturbance itself (i.e., during the daytime, when leaving the roost will likely result in predation). On Day 2, the remainder of the tree may be removed. Trimming or removal of any mature trees and snags during the maternity season (April 1–August 31) shall be avoided to prevent “take” of flightless young; this period approximately coincides with bird nesting season (March 15–September 15).
- If removal of mature trees during the bat maternity season (April 1–August 31) is necessary for project construction, all mature trees to be removed that have also been identified as containing suitable bat roosting habitat shall be surveyed at night prior to removal. Any trees confirmed during those surveys as housing bat

maternity colonies or special-status bat species shall be avoided until the end of the maternity season.

CULTURAL RESOURCES

CUL-01 If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours. Subsequently, the Native American Heritage Commission shall identify the person or persons it believes to be the "most likely descendant." The most likely descendant may then make recommendations, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98

GEOLOGY AND SOILS

GEO-01 During final design, borings shall be conducted by a registered geologist with Standard Penetration Testing and Seismic Cone Penetration Tests (SCPTs). Final design ARS curve should be developed using the estimated Vs30 and Caltrans ARS Online tool.

GEO-02 Liquefaction potential, seismically-induced liquefaction and dry sand settlement, and potential for ground and embankment instability or displacement due to liquefaction shall be quantified in final design by conducting borings with Standard Penetration Testing and Cone Penetration Testing (CPT), measuring stabilized groundwater levels, and performing detailed liquefaction analysis. If final design studies indicate it is required, mitigation measures could include structural solutions such as use of longer piles to mitigate settlement and/or lateral displacements of structures, or ground improvement solutions to reduce liquefaction potential and its impacts.

GEO-03 During final design, soil borings and laboratory testing shall be performed to screen for potentially volumetrically unstable materials and need for any mitigation. Typical tests would include Atterberg Limits, Moisture Content and Dry Density, Expansion Index, and One-dimensional Swell/ Collapse consolidation tests.

HYDROLOGY AND WATER QUALITY

WQA-01 **Education for Property Owners, Operators, Tenants, Occupants, or Employees.** The City of Lake Elsinore shall provide affected city personnel with general WQMP education materials from the Santa Ana River Region Stormwater Management Plan and/or California Regional Water Quality Control Board, Santa Ana River Basin Region, California Stormwater Quality Association BMP Handbook, or other appropriate sources. These educational materials shall include general housekeeping practices that prevent pollutant loading in site runoff and other BMPs that eliminate or reduce pollutant loading during subsequent project improvements.

WQA-02 **Activity Restrictions.** The types of activities allowed within the project shall be limited to and in accordance with the City of Lake Elsinore codes, regulations, and zoning ordinances. Activities such as staging or stockpiling construction and landscaping

materials or wastes in areas where they can be discharged to storm drains shall be prohibited. Activities associated with street and landscape maintenance, which can discharge pollutants (oil/grease, sediments, solvents, pesticides, herbicides, etc.) into Temescal Wash, shall be prohibited. Additionally, vehicle maintenance and washing shall be prohibited since it is not a feature of the project or associated project activities.

WQA-03 **Common Area Litter Control.** There is no common area proposed in the bridge project. The project is located in the street right-of-way crossing over Temescal Wash, which shall be maintained by the City of Lake Elsinore. Windblown trash and littering are the primary anticipated source of litter. The City of Lake Elsinore shall conduct street sweeping operation at the project site on a regular basis to pick up any accumulated trash and debris on the street and bridge. The street and bridge shall be inspected monthly and prior to the storm season (October 1st), and any accumulation of trash or debris shall be removed. The landscaped areas of the site shall be inspected during landscape maintenance and any accumulation of trash or debris shall be removed.

WQA-04 **Street Sweeping Public Street.** Temescal Canyon Road (public street) shall be swept once a month by the City of Lake Elsinore as a part of their street sweeping schedule.

WQA-05 **Drainage Facility Inspection and Maintenance.** The City of Lake Elsinore shall be responsible for the inspection and maintenance of the drainage facilities. The drainage system on Temescal Canyon Road shall be inspected at least once a year, preferably prior to the rainy season and following significant storm events. The filter insert BMPs should be inspected and maintained periodically for the proper and efficient operation of drainage system. The City shall maintain records of the inspection and maintenance activities.

Upon completion of the project, the City of Lake Elsinore shall conduct training sessions for City staff and associated contractors covering the requirements of the Source Control BMPs including, but not limited to the requirements of the Santa Ana River Region Stormwater Management Plan and the Stormwater Discharge General Permit.

The City of Lake Elsinore shall ensure that updated training materials are provided to city staff and service contractors annually. The City of Lake Elsinore shall be responsible for providing BMP training and education programs to all affected new employees, including service contractors. A record of city staff and service contractors who were trained shall be maintained along with their respective training dates.

WQA-06 **Project Slopes and Channels.** All proposed slopes with slope gradient of 1.5:1 or flatter shall be planted with deep rooted, drought tolerant erosion protection vegetation native to the area. Slopes steeper than 1.5:1 gradient shall be surfaced with concrete for erosion protection and slope stability. Drainage ditches associated with slope construction that outlet into Temescal Wash, if any, shall be lined with concrete and their outlets shall incorporate energy dissipater devices, such as rip-rap. The project slopes and graded area shall be maintained by the City of Lake Elsinore.

HYD-01 During final design (PS&E phase), groundwater table testing and monitoring shall be performed to determine actual and seasonal groundwater table data. Groundwater table testing shall be performed, and monitoring wells shall be installed at the beginning of final design at three locations; (1) upstream of the bridge, (2) downstream of the bridge, and (3) within the bridge footprint. The current groundwater table shall be measured using a hollow-stem auger drilling approximately 10 feet below groundwater table. The standpipe

piezometer wells shall be installed and monitored monthly during the dry season, and one day after and five days after each significant rainfall event, but no less than monthly during the rainy season. Monitoring of the groundwater table shall be performed for a period of at least a year prior to start of project construction and until construction of the bridge foundations and cutoff walls are completed in order to obtain seasonal groundwater table information. If the results of the tests indicate a shallow or perched groundwater condition that will result in groundwater draining to the surface, then the project design shall be modified to minimize grading of the main channel and the profile of the bridge and roadway over the wash shall be raised over Temescal Wash will be raised to provide adequate conveyance of the 100-year storm flow.

HYD-02 During final design (PS&E phase), a sediment transport study shall be prepared for Temescal Wash from Bernard Street up to Lake Street. The task shall include evaluation of historical channel trends, contrast of local channel slopes to regional slope variation, evaluation of anticipated changes to sediment loading to the project reach due to upstream activities, hydraulic capacity calculations of using normal depth procedures, and sediment transport potential evaluation using qualitative hydraulic indicators. Steady-state methodologies shall be used to contrast the sediment transport capacity of the channel reach local to the proposed bridge with anticipated supply rates, over a range of discharge conditions. Local sediment size information shall be used with the hydraulic information and sediment transport relations to estimate bed material sediment transport volumes passing through the upstream, local and downstream channel reach. Sediment continuity shall be applied to estimate potential erosion/sedimentation depths to be expected along the proposed channel under design event and average annual conditions. Local scour components, due to drop structures or other features incorporated into the proposed plan shall be computed, if applicable. The potential hydraulic and/or channel deformation effects of bed form development shall be assessed as well. Should the results of the sediment transport study indicate that the risk of erosion or siltation has significantly increased due to the proposed channel grading, then the project design shall be modified to minimize grading of the main channel and the profile of the bridge and roadway over Temescal Wash to provide adequate conveyance of the 100-year storm flow.

NOISE

NOS-01 The project contractor shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.

NOS-02 The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors to the west of the construction site.

NOS-03 The construction contractor shall locate equipment staging in areas that shall create the greatest distance between construction-related noise sources and noise-sensitive receptors to the west of the site during all project construction.

NOS-04 During all project site construction activities, the construction contractor shall limit all construction-related activities that would result in high noise levels to between the hours of 6:00 a.m. and 9:00 p.m. Monday through Saturday. No construction activities shall be allowed on Sundays and public holidays.

NOS-05 Sound control during the construction phase of the project shall conform to the provisions in Section 7-1.01I, Sound Control Requirements, of the Caltrans Standard Specifications

and these special provisions. The noise level from the contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA at a distance of 15 meters (50 feet). This requirement in no way relieves the contractor from responsibility for complying with local ordinances regulating noise level. The noise level requirements shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixers, and transient equipment that may or may not be owned by the contractor. The use of loud signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel. Full compensation for conforming to the requirements of this section would be considered as included in the process paid for various contract items of work involved.

TRIBAL CULTURAL RESOURCES

TCR-01 At least 30 days prior to any grading, excavation and/or other ground-disturbing activities on the Project site, the City of Lake Elsinore shall retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology and listed on the Register of Professional Archaeologists (RPA) or the County of Riverside list of qualified archaeologists to monitor all ground-disturbing activities.

TCR-02 At least 30 days prior to excavation within any previously undisturbed native soils, the City shall contact the Consulting Tribes to notify each Tribe of excavation activities and coordinate with the Tribes to develop Monitoring Agreements. The Agreements shall address the designation, responsibilities, and participation of Native American Tribal monitors during excavation and other ground disturbing activities within undisturbed native soils and construction scheduling. Native American monitoring shall be limited to only those periods during project construction where excavation within previously undisturbed areas is occurring. Ground disturbing activities within previously disturbed areas shall not require notification, monitoring or an Agreement.

TCR-03 The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:

a. Project grading and development scheduling;

b. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the City of Lake Elsinore; and

c. The protocols and stipulations that the City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resources.

TCR-04 Prior to any grading, excavation and/or other ground-disturbing activities on the Project site, the Project archaeologist and the Monitoring Tribe(s) shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. The City's construction manager shall ensure that construction personnel are made available for and attend the training and shall retain documentation demonstrating attendance.

TCR-05 In accordance with the agreement required in CR-2, the Project archaeologist and designated tribal monitor(s) assigned to the project by the Luiseño Tribe(s) shall have the authority to stop and redirect excavation in order to evaluate the significance of any archaeological resources discovered on the property.

TCR-06 All artifacts discovered at the development site shall be inventoried and analyzed by the Project archaeologist and Native American monitor(s). If any cultural materials of Native American origin are discovered, all activities in the immediate vicinity of the find (within a 50-foot radius) shall stop. The Project archaeologist and Native American monitor(s) shall analyze the Native American cultural materials for identification as everyday life and/or religious or sacred items, cultural affiliation, temporal placement, and function, as deemed possible. The significance of Native American resources shall be evaluated in accordance with the provisions of CEQA and shall consider the religious beliefs, customs, and practices of the Luiseño tribes. All items found in association with Native American human remains shall be considered grave goods or sacred in origin and subject to special handling.

The City and/or landowner shall relinquish ownership of all cultural resources. Native American cultural materials that cannot be avoided or relocated at the Project site shall be prepared in a manner for curation. Within a reasonable amount of time, the Project archaeological, following consultation with the Monitoring Tribe(s), shall deliver the materials to a qualified repository in Riverside County that meets or exceeds federal standards per 36 CFR Part 79 and which shall be made available to all qualified researchers and tribal representatives.

TCR-07 Treatment and Disposition of Cultural Resources: In the event that Native American cultural resources are inadvertently discovered during the course of grading for this Project. The following procedures will be carried out for treatment and disposition of the discoveries:

1. Temporary On-Site Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite. The removal of any cultural materials from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process; and

2. Treatment and Final Disposition: The agency shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all cultural materials and non- human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the cultural materials through one or more of the following methods and provide the City of Lake Elsinore Planning Department, Caltrans and Consulting Tribe(s)

    a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

    b. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated

records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation:

c. At the completion of grading, excavation and ground disturbing activities on the site a Phase IV Monitoring Report shall be submitted to the City of Lake Elsinore Planning Department, Caltrans and Consulting Tribe(s) documenting monitoring activities conducted by the project Archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City of Lake Elsinore Planning Department,

TCR-08 All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.

TCR-09 The Project archaeologist shall prepare a final archaeological report within sixty (60) days of completion of the Project. The report shall follow ARMR Guidelines and City of Lake Elsinore requirements and shall include at a minimum: a discussion of monitoring methods and techniques uses, the results of the monitoring program including any cultural materials recovered, an inventory of any resources recovered, updated DPR forms, if any, and any other site(s) identified, final disposition of the resources, and any additional recommendations. A final copy shall be submitted to the City of Lake Elsinore, the Eastern Information Center and the monitoring tribe(s).

4.2 MITIGATION MONITORING AND REPORTING PLAN

This Mitigation Monitoring and Reporting Plan has been prepared for use in implementing mitigation for the:

Temescal Canyon Road Bridge Replacement and Road Realignment Project

The program has been prepared in compliance with State law and the Initial Study (IS) prepared for the project by the City of Lake Elsinore.

The California Environmental Quality Act (CEQA) requires adoption of a reporting or monitoring program for those measures placed on a project to mitigate or avoid adverse effects on the environment (Public Resource Code Section 21081.6). The law states that the reporting or monitoring program would be designed to ensure compliance during project implementation.

The monitoring program contains the following elements:

1) The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.
2) A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who would take action, what action would be taken and when, and to whom and when compliance would be reported.
3) The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon recommendations by those responsible for the program. As changes are made, new monitoring compliance procedures and records would be developed and incorporated into the program.

This Mitigation Monitoring and Reporting Plan includes mitigation identified in the Initial Study.

MITIGATION MONITORING AND REPORTING PLAN CHECKLIST

Project File Name: **Temescal Canyon Road Bridge Replacement and Road Realignment Project**

Applicant: **City of Lake Elsinore**

Prepared by: **City of Lake Elsinore**

Date: **May 7, 2018**

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
AIR QUALITY						
AIR-01. During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions will be controlled by regular watering or other dust preventive measures using the following procedures, as specified in the South Coast Air Quality Management District (SCAQMD) Rule 403. All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust. Watering will occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. All material transported on site or off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust. The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized so as to prevent excessive amounts of dust. These control techniques will be indicated in project specifications. Visible dust beyond the property line emanating from the project will be prevented to the maximum extent feasible.	City Engineer or designee	Throughout construction	During grading and construction	On-site inspection		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
AIR-02. Project grading plans will show the duration of construction. Ozone precursor emissions from construction equipment vehicles will be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications.	City Engineer or designee and Construction Contractor	Prior to authorization to begin construction Throughout construction	Prior to authorization to begin construction During grading and construction	Review of construction plans On-site inspection		Withhold Authorization to Begin Construction Stop Work Order
AIR-03. All trucks that are to haul excavated or graded material on site will comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4), as amended, regarding the prevention of such material spilling onto public streets and roads. The contractor shall provide periodic reporting documents to the City to prove and ensure compliance.	City Engineer or designee and Construction Contractor	Throughout construction	During grading and construction	On-site inspection and Contractor Reporting Documents		Stop Work Order
AIR-04. The contractor will adhere to the California Department of Transportation (Caltrans) Standard Specifications for Construction (Sections 14.9 02 and 14 9.03).	City Engineer or designee and Construction Contractor	Throughout construction	During grading and construction	On-site inspection		Stop Work Order
AIR-05. All construction vehicles both on and off site shall be prohibited from idling in excess of 5 minutes. This requirement shall be provided as a bid or contract specification with contractors.	City Engineer or designee and Construction Contractor	Throughout construction	During grading and construction	On-site inspection and review of reporting documents		Stop Work Order
AIR-06. Construction trucks shall use of 2010 model year diesel haul trucks that conform to 2010 U.S. EPA truck	City Engineer or designee and Construction	Review of bid and construction	During grading and construction	On-site inspection and review of		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
standards or newer diesel haul trucks (e.g., material delivery trucks and soil import/export) during construction. This requirement shall be provided as a bid or contract specification with contractors. The contractor shall provide periodic reporting documents to the City to prove and ensure compliance.	Contractor	documents and throughout construction		reporting documents		
AIR-07. The contractor shall use Tier 4 emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower. This requirement shall be provided as a bid or contract specification with contractors.	City Engineer or designee and Construction Contractor	Review of bid and construction documents and throughout construction	During grading and construction	On-site inspection		Stop Work Order
BIOLOGICAL RESOURCES						
BIO-01 Project construction and vegetation removal shall be completed outside of general bird breeding season (typically set as February 15 through August 31).	City Engineer or designee and Construction Contractor	Prior to authorization to begin construction Feb 15-Aug31	Prior to authorization to begin construction During grading and construction	Construction Plans Onsite Inspection		Withhold Authorization to Begin Construction Stop Work Order
BIO-02 In the event that vegetation removal cannot be conducted outside the bird breeding season, focused surveys shall be conducted by a qualified biologist within three days prior to vegetation removal activities. Should nesting birds be found, an exclusionary buffer shall be established by a qualified	City Engineer or designee and Project Biologist	3 days prior to vegetation removal activities survey	Between Sept 1 through Feb 14	Onsite Inspection		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer shall be clearly marked in the field by construction personnel under guidance of the qualified biologist, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.		During vegetation removal				
BIO-03. Prior to project construction activities, a pre-construction nesting bird survey will be conducted over the entire project site by a qualified biologist within three days prior to construction activities.	City Engineer or designee and Project Biologist	Once	During bird breeding season prior to construction	Review of report prepared by qualified biologist		Withhold Authorization to Begin Construction
BIO-04. If nesting birds be found**,** an exclusionary buffer shall be established by a qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer shall be clearly marked in the field by construction personnel under guidance of the qualified biologist, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.	City Engineer or designee and Project Biologist	Once	During bird breeding season prior to construction	On site inspection		Withhold Authorization to Begin Construction
BIO-05. Nesting bird habitat within the construction footprint of the project shall be resurveyed during the general bird breeding season if there is a lapse in construction activities longer than seven days.	City Engineer or designee Construction Contractor Project Biologist	Ongoing if required	If construction stops for more than 7 days during bird breeding season.	Review of nesting bird survey report		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
BIO-06. Burrowing Owls. Prior to the start of any vegetation removal or ground-disturbing activities, a pre-construction clearance survey for burrowing owls shall be conducted to ensure that burrowing owls remain absent, and impacts to any occupied burrows do not occur. In accordance with the Staff Report on Burrowing Owl Mitigation, two pre-construction clearance surveys shall be conducted 14 days and 24 hours, respectively, prior to any vegetation removal or ground-disturbing activities. In the event this species is not identified onsite, no further mitigation is required. If during the pre-construction burrowing owl survey, this species is found to occupy the site, Mitigation **Measure BIO-07** shall be required.	City Engineer or designee and Project Biologist	Prior to vegetation removal	Pre-construction survey	Survey Results		Withhold Authorization to Begin Construction
BIO-07. In the event burrowing owls are identified during the survey periods, the City shall contact the California Department of Fish and Wildlife (CDFW) to develop a burrowing owl relocation and conservation strategy. Prior to ground-disturbing activities, the project applicant shall take the following actions: • A minimum 75-meter (250-foot) buffer shall be provided around any active nest until fledging has occurred. Following fledging, owls may be passively relocated (use of one-way doors and collapse of burrows) by a qualified biologist. • If impacts to occupied (non-nesting) burrows are unavoidable, onsite	City Engineer or designee and Project Biologist	Prior to vegetation removal	Pre-construction survey	Review of construction plans		Withhold Authorization to Begin Construction

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
passive relocation techniques, as approved by the CDFW, may be employed to encourage owls to move to alternative burrows outside of the impact area. • If relocation of the owls is approved for the site by the CDFW, the City shall require the developer to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan must include all of the following: - The location of the nest and owls proposed for relocation. - The location of the proposed relocation site. - The number of owls involved and the time of year when the relocation is proposed to take place. - The name and credentials of the biologist who shall be retained to supervise the relocation. - The proposed method of capture and transport for the owls to the new site. - A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control). - A description of efforts and funding support proposed to monitor the relocation.						

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
BIO-08. Prior to clearing or construction, highly visible barriers (such as orange construction fencing) shall be installed along the boundaries of the project footprint. All construction equipment shall be operated in a manner to prevent accidental damage to areas outside the project footprint. No structure of any kind, or incidental storage of equipment or supplies, shall be allowed within these protected zones. Silt fence barriers shall be installed at the project boundary to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned grading activities.	Project Biologist and Construction Contractor	Once	Prior to vegetation removal	Onsite Inspection		Stop Work Order
BIO-09. All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities shall occur in developed or designated non-sensitive upland habitat areas. The designated upland areas shall be located in such a manner as to prevent any spill runoff from entering waters of the U.S.	Construction Contractor and Project Biologist	Ongoing	During ground disturbing activities and construction	Onsite Inspection		Stop Work Order
BIO-10. A biologist shall monitor construction for the duration of the project construction to ensure that vegetation removal, Best Management Practices (BMPs), and all avoidance and minimization measures are properly constructed and followed.	Construction Contractor and Project Biologist	Ongoing	During ground disturbing activities and construction	Onsite Inspection		Stop Work Order
BIO-11. A weed abatement program shall be developed by the City of Lake Elsinore to minimize the importation of non-native plant material during and after	City's Project Engineer	Once	Prior to authorization to begin construction	Construction Plans		Withhold Authorization to Begin Construction

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
construction. Eradication strategies shall be employed should an invasion occur.		Ongoing	During ground disturbing activities and construction	Onsite Inspection		Stop Work Order
BIO-12. The portions of the Temescal Wash affected by the project shall be recontoured to its original grades.	City's Project Engineer	Once Ongoing	Prior to authorization to begin construction During ground disturbing activities and construction	Construction Plans Onsite Inspection		Withhold Authorization to Begin Construction Stop Work Order
BIO-13. During construction, the construction contractor shall inspect and clean construction equipment at the beginning of each day and prior to transporting equipment from one project location to another.	Construction Contractor	Daily	During ground disturbing activities and construction	Onsite Inspection		Stop Work Order
BIO-14. During construction, soil and vegetation disturbance shall be minimized to the greatest extent feasible.	Construction Contractor	Daily	During ground disturbing activities and construction	Onsite Inspection		Stop Work Order
BIO-15. During construction, the construction contractor shall ensure that all active portions of the construction site are watered as necessary to prevent excessive amounts of dust.	Construction Contractor	Daily	During ground disturbing activities and construction	Onsite Inspection		Stop Work Order
BIO-16. During construction, soil, gravel, and rock shall be obtained from weed-free sources.	Construction Contractor	Ongoing	During ground disturbing activities and	Onsite Inspection		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
			construction			
BIO-17. Only certified weed-free straw, mulch, and/or fiber rolls shall be used for erosion control.	Construction Contractor	Ongoing	During ground disturbing activities and construction	Onsite Inspection		Stop Work Order
BIO-18. After construction, affected areas adjacent to native vegetation shall be revegetated with plant species that are native to the vicinity as approved by a qualified biologist.	Project Biologist	After construction is complete	During revegetation of site	Onsite Inspection		Stop Work Order
BIO-19. After construction, all revegetated areas shall avoid the use of species listed on Cal-IPC's California Invasive Plant Inventory that have a high or moderate rating.	Project Biologist	After construction is complete	During revegetation of site	Onsite Inspection		Stop Work Order
BIO-20. Erosion control and/or revegetation sites shall be monitored after construction to detect and control the introduction/invasion of nonnative species. The monitoring period shall be determined in consultation with resource agencies.	Project Biologist	After revegetation is complete	Timing will be verified with CDFW	Onsite Inspection		
BIO-21. Eradication procedures (e.g., spraying and/or hand weeding) shall be outlined should an infestation occur; the use of herbicides shall be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by a qualified biologist .	Project Biologist and City's Project Engineer	Prior to revegetation of site	Prior to approval of Revegetation Plans	Review of revegetation plans		Withhold approval of Revegetation Plans

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
BIO-22. All woody invasive species (e.g., tamarisk and eucalyptus trees) shall be removed from the project limits.	Project Biologist and City's Project Engineer	Once prior to construction and ongoing during and after construction	Prior to authorization to begin construction and onsite inspection	Review of construction plans and revegetation plans		Withhold Authorization to Begin Construction Stop Work Order
BIO-23. A Habitat Mitigation and Monitoring Plan (HMMP) for the 6.22-acre on-site restoration area shall be prepared and implemented by the project. 1. Remove non-native trees and shrubs from the reaches of Temescal Creek located outside of the grading limits. Examples of species to be removed are eucalyptus, tamarisk, and tree tobacco. Stumps will be treated with herbicide to prevent re-sprouting. 2. Establish cottonwood, arroyo willow, mule fat, and elderberry and other tree and shrub riparian species using at least 1-gallon container stock. Planting and irrigation will be installed in the relocated low-flow trapezoidal channel and in the excavated and widened channel bed/terrace of various widths upstream and downstream of the bridge. The channel bed will be 8 to 10 feet lower than existing grade and the channel bed will be excavated down 5 to 8 feet. Groundwater is possibly 10 feet below the existing ground level and establishment of this habitat would be dependent on appropriate	Project Biologist and City's Project Engineer	Once prior to City approval of the HMMP	Prior to authorization to begin construction and onsite inspection	Review of HMMP		Withhold Authorization to Begin Construction Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
hydrology. Hydrologic conditions within the restoration area would be determined prior to the preparation of the HMMP. 3. Approximately five coast live oak trees will be removed by the project. To compensate for the loss of coast live oak trees, oak trees will be replaced at a 10:1 replacement ratio on either side of the new and old road alignment within the transitional upland area. Mulch, bark, acorns, and branches from the existing trees will be saved to serve as mulch around the planted oak saplings. The oaks will be irrigated during establishment period. The number of replacement oak trees is estimated to be 50 but the actual number will be determined after completion of an arborist inventory prior to tree removal. 4. Create native coastal sage scrub habitat (CSS) in the adjacent transitional upland areas. A diversity of common shrub, forbs, and annuals will be seeded in the areas adjacent to the riparian areas and streambed. The CSS will also be seeded around the oak trees. The upland areas will be irrigated for the first three years to ensure rapid establishment. 5. Dedicate the restoration area as a long-term conservation easement. 6. Planting will be implemented using standard practices used by						

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
professional native landscaping companies, arborists, and irrigation installers. Creating natural stream characteristics after excavation of the channel bed and completion of the new streambed alignment will be guided by criteria described the 2012 function-based framework for restoration projects as recommended by the U.S. Army Corps of Engineers (USACE) and USFWS (Harmon, et al. 2012). 7. The HMMP will include an implementation plan, site preparation, seed and plant material, installation methods, performance standards, maintenance and monitoring success criteria, and reporting measures. The mitigation area will be maintained until performance standards are achieved, which is anticipated to be approximately five years.						
BIO-24. The additional 1.76 acres of mitigation shall be acquired off site through one of the following options: • **Option 1:** Purchase of 1.76 acres of restoration credits from a CDFW-approved mitigation bank or habitat conservation organization. • **Option 2:** Provide 1.76 acres of mitigation on City-owned property. Provide long-term habitat restoration/enhancement and management with a non-wasting endowment for an existing fairy	City's Project Engineer	Once within six months of the start of construction	Consultation with RCA and Wildlife Agencies prior to issuance of grading permits	Construction Plans		Withhold Authorization to Begin Construction

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
shrimp conservation area. An HMMP would be prepared and the lands would be managed by a CDFW-approved conservation organization. • **Option 3:** RCA and Wildlife Agency-approved mitigation site for 1.76 acres. A restoration or enhancement mitigation opportunity, such as on an RCA conserved property within the MSHCP, may become available by the time the project is ready to purchase off-site mitigation and provide appropriate funding for restoration/enhancement activities. It would preferably be located in or along Temescal Wash. The preferred option shall be selected prior to any vegetation removal or ground disturbance associated with the proposed project and the City shall notify the RCA and Wildlife Agencies of the selected option immediately after the decision has been made. Initiation of the selected option shall also occur prior to vegetation removal or any ground disturbance, but may be finalized/completed within six months of the start of construction. If necessary, any extension of the off-site mitigation option should be done through a request submitted to RCA and the Wildlife Agencies.						

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
BIO-25• Prior to construction, a Caltrans-approved bat biologist shall conduct a bat assessment survey to determine the presence or absence of bat species that may occur within the project limits. Should the presence of bat species be determined during this assessment, the following measures shall be implemented to address potential impacts to bats.	City Engineer or designee Construction Contractor Bat Biologist	Once	Prior to construction	Review of bat assessment survey		Withhold Authorization to Begin Construction
• Project-related construction activities shall occur outside of the bat maternity roosting season (April 1–August 31), if feasible. Should such activities occur during the maternity roosting season (April 1–August 31), the following measures shall be implemented to minimize potential impacts to day-roosting bats (including maternity colonies) from project construction.	City Engineer Construction Contractor	Apr 1 – Aug 31	During construction	Site visits		Stop Work Order
• Nighttime exit counts and acoustic surveys shall be performed by a qualified bat biologist at structures that may be subject to project-related impacts. These surveys shall be performed during the recognized bat maternity season (April 1–August 31, but preferably in June or July), and as far in advance of construction as possible in order to provide adequate time for mitigation planning.	City Engineer Construction Contractor Bat Biologist	Apr 1 – Aug 31 Or Jun - July	Prior to construction	Report verifying bat surveys were conducted at night to be prepared by the bat biologist and submitted to the City for review		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
• Construction activities within 200 feet of structures housing maternity colonies shall be coordinated with a Caltrans-approved bat biologist and the California Department of Fish and Wildlife.	City Engineer Construction Manager Bat Biologist	Once	Prior to construction	On-site visit and verification for bat biologist that coordination with CDFW occurred		Stop Work Order
• If direct impacts to bat-roosting habitat are anticipated, humane evictions and exclusions of roosting bats shall be performed under the supervision of a Caltrans-approved bat biologist after August 31 in the fall (September or October) prior to any work activities that would result in direct impacts or direct mortality to roosting bats. This action will be performed in coordination with the California Department of Fish and Wildlife. To avoid potential mortality of flightless juvenile bats, evictions and exclusions of bats cannot be performed during the maternity season (April 1–August 31). Winter months are also inappropriate for bat eviction because not all individuals in a roost will emerge on any given night. In addition, long-distance movements to other roost sites are more difficult during the winter when prey availability is scarce, resulting in high mortality rates of evicted bats.	City Engineer Construction Contractor Bat Biologist	After Aug 31	Prior to construction	Written verification from bat biologist that compliance with the mitigation measure has occurred.		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
• If permanent, direct impacts to bat-roosting habitat are anticipated and/or if a humane eviction/exclusion is performed, alternate permanent roosting habitat shall be provided prior to the eviction/exclusion of bats from that structure to ensure no net loss of bat-roosting habitat. This action shall be coordinated with the California Department of Fish and Wildlife, and the design, numbers, and locations of these roost structures shall be determined in consultation with a Caltrans-approved bat biologist to ensure that the installed habitat will provide adequate mitigation for impacts.	City Engineer Bat Biologist	Once	Prior to construction	On-site visit and report to be provided by bat biologist.		Stop Work Order
• The loss of a night roost can negatively affect the use of a foraging area, and consequently may result in reduced fecundity in species that are already slow to reproduce. If night roosting is confirmed at any of the structures within the proposed project area, work shall be limited to the daylight hours to the greatest extent feasible to avoid potential disruption of foraging. If night work cannot be avoided, night lighting shall be focused only on the area of direct work, airspace access to and from the roost features of the structure shall not be obstructed, and light spillover into the adjacent foraging areas shall be minimized to the	City Engineer Construction Contractor	Ongoing	During construction	Site visit		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
greatest extent feasible.						
• All mature trees to be removed as part of the project evaluated by a qualified bat biologist for their potential to support roosting bats. Trees that are identified as suitable bat roost sites shall be removed using a two-step process that occurs over a 2-day period. On Day 1, branches and limbs that do not contain crevices or cavities shall be removed using hand tools or chainsaws. The goal is to create a disturbance sufficient to cause any bats roosting in the tree to leave that night and not return, but not at a level of intensity that will cause bats to fly out of the tree during the disturbance itself (i.e., during the daytime, when leaving the roost will likely result in predation). On Day 2, the remainder of the tree may be removed. Trimming or removal of any mature trees and snags during the maternity season (April 1–August 31) shall be avoided to prevent "take" of flightless young; this period approximately coincides with bird nesting season (March 15–September 15).	City Engineer Construction Contractor Bat Biologist	On-going	Prior to any tree removal	Site visit and review of report by bat biologist		Stop Work Order
• If removal of mature trees during the bat maternity season (April 1–August 31) is necessary for project construction, all mature trees to be removed that have also been identified as containing suitable bat	City Engineer Construction Contractor	Apr 1 – Aug 31	Prior to any tree removal.	Review of report by bat biologist		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
roosting habitat shall be surveyed at night prior to removal. Any trees confirmed during those surveys as housing bat maternity colonies or special-status bat species shall be avoided until the end of the maternity season.	Bat Biologist					
CULTURAL RESOURCES						
CUL-01. If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours. Subsequently, the Native American Heritage Commission shall identify the person or persons it believes to be the "most likely descendant." The most likely descendant may then make recommendations, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98	City Engineer or designee and Construction Contractor	Throughout construction	During grading and construction	On-site inspection		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
GEOLOGY AND SOILS						
GEO-01. During final design, borings shall be conducted by a registered geologist with Standard Penetration Testing and Seismic Cone Penetration Tests (SCPTs). Final design ARS curve should be developed using the estimated Vs30 and Caltrans ARS Online tool.	City Engineer or designee	Once	During review of Engineering Plans	Engineering Plans		Withhold Approval of Engineering Plans
GEO-02. Liquefaction potential, seismically-induced liquefaction and dry sand settlement, and potential for ground and embankment instability or displacement due to liquefaction shall be quantified in final design by conducting borings with Standard Penetration Testing and Cone Penetration Testing (CPT), measuring stabilized groundwater levels, and performing detailed liquefaction analysis. If final design studies indicate it is required, mitigation measures could include structural solutions such as use of longer piles to mitigate settlement and/or lateral displacements of structures, or ground improvement solutions to reduce liquefaction potential and its impacts.	City Engineer or designee	Once	During review of Engineering Plans	Engineering Plans		Withhold Approval of Engineering Plans
GEO-03. During final design, soil borings and laboratory testing shall be performed to screen for potentially volumetrically unstable materials and need for any mitigation. Typical tests would include Atterberg Limits, Moisture Content and Dry Density, Expansion Index, and One-dimensional Swell/ Collapse consolidation tests.	City Engineer or designee	Once	During review of Engineering Plans	Engineering Plans		Withhold Approval of Engineering Plans

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
HYDROLOGY AND WATER QUALITY						
WQA-01. The City of Lake Elsinore shall provide affected city personnel with general WQMP education materials from the Santa Ana River Region Stormwater Management Plan and/or California Regional Water Quality Control Board, Santa Ana River Basin Region, California Stormwater Quality Association BMP Handbook, or other appropriate sources. These educational materials shall include general housekeeping practices that prevent pollutant loading in site runoff and other BMPs that eliminate or reduce pollutant loading during subsequent Project improvements.	City Engineer or designee	Once	Prior to approval of final WQMP	Final WQMP		Withhold Approval of Final WQMP
WQA-02. The types of activities allowed within the Project shall be limited to and in accordance with the City of Lake Elsinore codes, regulations, and zoning ordinances. Activities such as staging or stockpiling construction and landscaping materials or wastes in areas where they can be discharged to storm drains shall be prohibited. Activities associated with street and landscape maintenance, which can discharge pollutants (oil/grease, sediments, solvents, pesticides, herbicides, etc.) into Temescal Wash, shall be prohibited. Additionally, vehicle maintenance and washing shall be prohibited since it is not a feature of the Project or associated Project activities.	City Engineer or designee	Ongoing	During ground disturbing activities and construction	Onsite Inspection		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
WQA-03. There is no common area proposed in the bridge Project. The Project is located in the street right-of-way crossing over Temescal Wash, which shall be maintained by the City of Lake Elsinore. Windblown trash and littering are the primary anticipated source of litter. The City of Lake Elsinore shall conduct street sweeping operation at the Project site on a regular basis to pick up any accumulated trash and debris on the street and bridge. The street and bridge shall be inspected monthly and prior to the storm season (October 1st), and any accumulation of trash or debris shall be removed. The landscaped areas of the site shall be inspected during landscape maintenance and any accumulation of trash or debris shall be removed.	City Engineer or designee	Monthly	Prior to Oct 31 each year	Contract with a Street sweeper		
WQA-04. Temescal Canyon Road (public street) shall be swept once a month by the City of Lake Elsinore as a part of their street sweeping schedule.	City Engineer or designee	Monthly	Prior to Oct 31 each year	Contract with Street Sweeper		
WQA-05. The City of Lake Elsinore shall be responsible for the inspection and maintenance of the drainage facilities. The drainage system on Temescal Canyon Road shall be inspected at least once a year, preferably prior to the rainy season and following significant storm events. The filter insert BMPs should be inspected and maintained periodically for the proper and efficient operation of drainage system. The City shall	City Engineer or designee	Once Yearly	Prior to rainy season	On-site inspection		

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
maintain records of the inspection and maintenance activities. Upon completion of the Project, the City of Lake Elsinore shall conduct training sessions for City staff and associated contractors covering the requirements of the Source Control BMPs including, but not limited to the requirements of the Santa Ana River Region Stormwater Management Plan and the Stormwater Discharge General Permit. The City of Lake Elsinore shall ensure that updated training materials are provided to city staff and service contractors annually. The City of Lake Elsinore shall be responsible for providing BMP training and education programs to all affected new employees, including service contractors. A record of city staff and service contractors who were trained shall be maintained along with their respective training dates.	City Engineer or designee City Engineer or designee	Once Yearly Once Yearly	Prior to rainy season Prior to rainy season and BMP Training	Conduct BMP Training and keep training date records. Update BMP education and training programs		
WQ-06. All proposed slopes with slope gradient of 1.5:1 or flatter shall be planted with deep rooted, drought tolerant erosion protection vegetation native to the area. Slopes steeper than 1.5:1 gradient shall be surfaced with concrete for erosion protection and slope stability. Drainage ditches associated with slope construction that outlet into Temescal Wash, if any, shall be lined with concrete and their outlets shall incorporate energy dissipater devices, such as rip-rap. The Project slopes and graded area shall be	City Planner and City Engineer or designee Project Biologist City Engineer or designee	Once at grading plan review Ongoing	During review of grading plans	Grading Plan s On-site Inspection		Withhold Grading Permits

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
maintained by the City of Lake Elsinore.						
HYD-01. During final design (PS&E phase), groundwater table testing and monitoring shall be performed to determine actual and seasonal groundwater table data. Groundwater table testing shall be performed, and monitoring wells shall be installed at the beginning of final design at three locations; (1) upstream of the bridge, (2) downstream of the bridge, and (3) within the bridge footprint. The current groundwater table shall be measured using a hollow-stem auger drilling approximately 10 feet below groundwater table. The standpipe piezometer wells shall be installed and monitored monthly during the dry season, and one day after and five days after each significant rainfall event, but no less than monthly during the rainy season. Monitoring of the groundwater table shall be performed for a period of at least a year prior to start of project construction and until construction of the bridge foundations and cutoff walls are completed in order to obtain seasonal groundwater table information. If the results of the tests indicate a shallow or perched groundwater condition that will result in groundwater draining to the surface, then the project design shall be modified to minimize grading of the main channel and the profile of the bridge and roadway over the wash shall be raised over Temescal Wash to provide adequate conveyance of the 100-year storm flow..	City Engineer or designee	Over a period of one year.	During Final Design	On-site inspection and review of groundwater testing report		Do not approval the Final Bridge Design

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
HYD-02 During final design (PS&E phase), a sediment transport study shall be prepared for Temescal Wash from Bernard Street up to Lake Street. The task shall include evaluation of historical channel trends, contrast of local channel slopes to regional slope variation, evaluation of anticipated changes to sediment loading to the project reach due to upstream activities, hydraulic capacity calculations of using normal depth procedures, and sediment transport potential evaluation using qualitative hydraulic indicators. Steady-state methodologies shall be used to contrast the sediment transport capacity of the channel reach local to the proposed bridge with anticipated supply rates, over a range of discharge conditions. Local sediment size information shall be used with the hydraulic information and sediment transport relations to estimate bed material sediment transport volumes passing through the upstream, local and downstream channel reach. Sediment continuity shall be applied to estimate potential erosion/sedimentation depths to be expected along the proposed channel under design event and average annual conditions. Local scour components, due to drop structures or other features incorporated into the proposed plan shall be computed, if applicable. The potential hydraulic and/or channel deformation effects of bed form development shall be assessed as well. Should the results of	City Engineer or designee	Once prior to approval of final design of the bridge.	Prior to final approval of the bridge design	Submittal and review of a sediment transport study		Do not approval the Final Bridge Design.

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
the sediment transport study indicate that the risk of erosion or siltation has significantly increased due to the proposed channel grading, then the project design shall be modified to minimize grading of the main channel and the profile of the bridge and roadway over Temescal Wash to provide adequate conveyance of the 100-year storm flow.						
TRIBAL CULTURAL RESOURCES						
TCR-01. At least 30 days prior to any grading, excavation and/or other ground-disturbing activities on the project site, the City of Lake Elsinore shall retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology and listed on the Register of Professional Archaeologists (RPA) or the County of Riverside list of qualified archaeologists to monitor all ground-disturbing activities.	City Planner and City Engineer or designee	Once 30-days prior to grading or ground disturbing activities.	Prior to ground disturbing activities	Provide proof (such as a contract) in writing indicating a qualified archaeological monitor has been obtained.		Withhold Authorization to Begin Construction
TCR-02. At least 30 days prior to excavation within any previously undisturbed native soils, the City shall contact the Consulting Tribes to notify each Tribe of excavation activities and coordinate with the Tribes to develop Monitoring Agreements. The Agreements shall address the designation, responsibilities, and participation of Native American Tribal monitors during excavation and other ground disturbing activities within undisturbed native soils and construction scheduling. Native American monitoring shall be limited to	City Planner and City Engineer or designee	Once 30-days prior to grading or ground disturbing activities.	Prior to ground disturbing activities	Provide proof of a Monitoring Agreement with the Native American Tribes.		Withhold Authorization to Begin Construction

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
only those periods during project construction where excavation within previously undisturbed areas is occurring. Ground disturbing activities within previously disturbed areas shall not require notification, monitoring or an Agreement.						
TCR-03. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include: a. Project grading and development scheduling; b. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the City of Lake Elsinore; and c. The protocols and stipulations that the City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resources.	City Planner and City Engineer or designee Project Archaeologist	Once	Prior to ground disturbing activities	Provide proof of CRMP has been prepared as indicated in the mitigation measure.		Withhold Authorization to Begin Construction
TCR-04. Prior to any grading, excavation and/or other ground-disturbing activities on the Project site, the Project archaeologist and the Monitoring Tribe(s) shall conduct cultural resources sensitivity training for all construction	Project Archaeologist City's Construction Manager	Once	Prior to ground-disturbing activities.	Written verification to City by Project Archaeologist the training has occurred.		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. The City's construction manager shall ensure that construction personnel are made available for and attend the training and shall retain documentation demonstrating attendance.						
TCR-05. In accordance with the agreement required in **TCR-02,** the Project archaeologist and designated tribal monitor(s) assigned to the project by the Luiseño Tribe(s) shall have the authority to stop and redirect excavation in order to evaluate the significance of any archaeological resources discovered on the property**.**	Project Archaeologist	Throughout construction	During ground disturbance activities	On-site Monitoring		Stop Work Order
TCR-06. All artifacts discovered at the development site shall be inventoried and analyzed by the Project archaeologist and Native American monitor(s). If any cultural materials of Native American origin are discovered, all activities in the immediate vicinity of the find (within a 50-foot radius) shall stop. The Project archaeologist and Native American monitor(s) shall analyze the Native American cultural materials for identification as everyday life and/or religious or sacred items, cultural affiliation, temporal placement, and function, as deemed possible. The	Project Archaeologist and Native American Monitor	Throughout construction	During ground disturbance activities	On-site Monitoring		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
significance of Native American resources shall be evaluated in accordance with the provisions of CEQA and shall consider the religious beliefs, customs, and practices of the Luiseño tribes. All items found in association with Native American human remains shall be considered grave goods or sacred in origin and subject to special handling. The City and/or landowner shall relinquish ownership of all cultural resources. Native American cultural materials that cannot be avoided or relocated at the Project site shall be prepared in a manner for curation. Within a reasonable amount of time, the Project archaeological, following consultation with the Monitoring Tribe(s), shall deliver the materials to a qualified repository in Riverside County that meets or exceeds federal standards per 36 CFR Part 79 and which shall be made available to all qualified researchers and tribal representatives.						
TCR-07. Treatment and Disposition of Cultural Resources: In the event that Native American cultural resources are inadvertently discovered during the course of grading for this Project. The following procedures will be carried out for treatment and disposition of the discoveries:	Project Archaeologist and Native American Monitor and City Planner	Anytime during construction	When Native American cultural resources are inadvertently discovered during ground disturbing activities.	Onsite Inspection		Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
1. Temporary On-Site Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite. The removal of any cultural materials from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process; and 2. Treatment and Final Disposition: The agency shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all cultural materials and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the cultural materials through one or more of the following methods and provide the City of Lake Elsinore Planning Department, Caltrans and Consulting Tribe(s) a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;						

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
b. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation c. At the completion of grading, excavation and ground disturbing activities on the site a Phase IV Monitoring Report shall be submitted to the City of Lake Elsinore Planning Department, Caltrans and Consulting Tribe(s) documenting monitoring activities conducted by the project Archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City of Lake						

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
Elsinore Planning Department,						
TCR-08. All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.	Project Archaeologist and Native American Monitor, City Planner and City Engineer or designee	Anytime during construction	When Native American sacred sites are inadvertently discovered during ground disturbing activities.	Onsite Inspection		Stop Work Order
TCR-09. The Project archaeologist shall prepare a final archaeological report within sixty (60) days of completion of the Project. The report shall follow ARMR Guidelines and City of Lake Elsinore requirements and shall include at a minimum: a discussion of monitoring methods and techniques uses, the results of the monitoring program including any cultural materials recovered, an inventory of any resources recovered, updated DPR forms, if any, and any other site(s) identified, final disposition of the resources, and any additional recommendations. A final copy shall be submitted to the City of Lake Elsinore, the Eastern Information Center and the monitoring tribe(s).	Project Archaeologist and City Planner and City Engineer or designee	Once	60 days after completion of the project	Submittal of a final archaeological report to City and verification in writing the reports has been submitted to the Eastern Information Center and the monitoring tribe(s).		Project Archaeologist does not receive final payment for services.

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Appendices are attached on CD-ROM or Flashdrive

Appendix A

Bridge Aesthetics, David Evans and Associates, Inc.

Appendix B

Air Quality Report, LSA Associates, Inc.

Appendix C

Natural Environmental Study (Biological Resources), LSA Associates, Inc.

Appendix D

Archaeological Study Report and Historic Property Survey Report, LSA Associates, Inc.

Appendix E-1

District Preliminary Geotechnical Report, Group Delta Consultants, Inc.

Appendix E-2

District Preliminary Geotechnical Report Supplemental Memo, Group Delta Consultants, Inc.

Appendix F-1

Initial Site Assessment (Hazardous Materials), Group Delta Consultants, Inc.

Appendix F-2

Aerially Deposited Lead (ADL) Investigation, Group Delta Consultants, Inc.

Appendix F-3

Yellow Paint and Thermoplastic Traffic Striping Report, Group Delta Consultants, Inc.

Appendix G

Water Quality Study, Aguilar Engineering, Inc.

Appendix H-1

Floodplain and Bridge Hydraulics and Scour Study Report, Aguilar Engineering, Inc.

Appendix H-2

Supplemental Floodplain Study and Bridge Hydraulics and Scour Study Report, Aguilar Engineering, Inc.

Appendix I

Noise Screening Analysis, LSA Associates, Inc.

Appendix J

Revised Traffic Assessment Memorandum, Linscott, Law and Greenspan

Appendix K

Comment Letters and Responses on the Original Initial Study, March 2018.