

**Addendum  
to the Mitigated Negative Declaration for the  
Green Valley Road Bridge (25C-0038) Replacement at Tennessee Creek /  
N. Shingle Road Intersection Improvements Project**

**February 24, 2010**

**Introduction**

On December 9, 2008, the El Dorado County Board of Supervisors adopted a Mitigated Negative Declaration (MND) (attached) for the Green Valley Road Bridge Replacement at Tennessee Creek/N. Shingle Road Intersection Improvements Project and approved the project. A Notice of Determination was filed by El Dorado County on December 10, 2008.

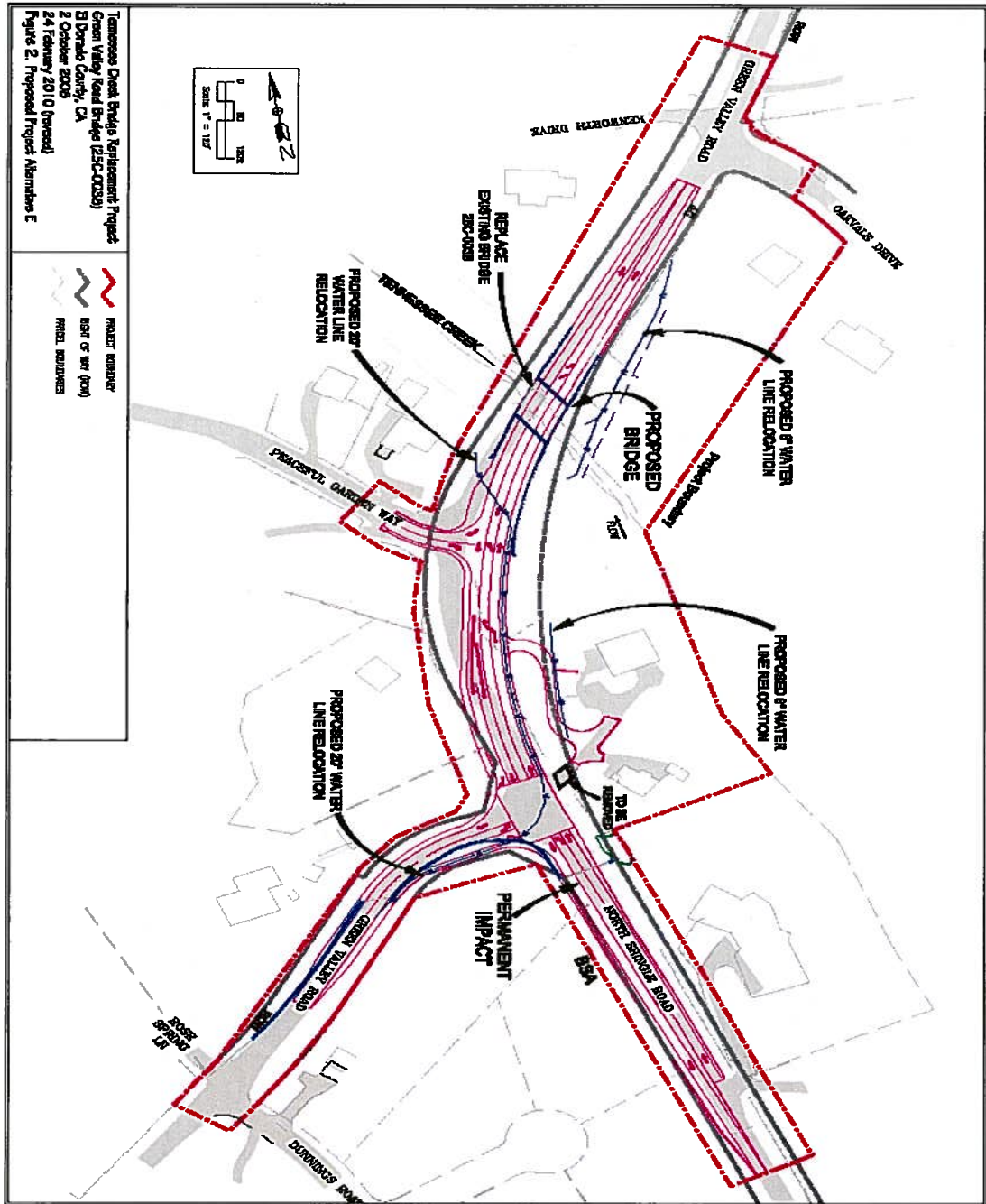
The purpose of the Green Valley Road Bridge Replacement at Tennessee Creek/N. Shingle Road Intersection Improvements project as approved by El Dorado County is to replace a functionally obsolete bridge at Tennessee Creek with a functional bridge that is designed in accordance with current standards. The objective of that project is to improve driver safety in the project area by increasing the width of the bridge to accommodate car and bike traffic and to improve site distances approaching the bridge by straightening the reverse curve in Green Valley Road on the bridge's southern approach. Secondly, that project is intended to improve the Green Valley Road/N. Shingle Road intersection by channelization and signalization with the intended purpose of facilitating an improved functionality of the intersection. Finally, that project is intended to facilitate safer ingress and egress to the numerous roads and driveways within the project boundary by constructing a continuous left turn lane between the intersections of Green Valley/N. Shingle Road and Green Valley/Oakvale/Kenworth Drive.

The MND comprehensively evaluates the bridge replacement and intersection improvements project, and based on all mitigation measures identified in the MND, it was determined that the bridge replacement and intersection improvements project would not have any significant environmental impacts.

An El Dorado Irrigation District (EID) water main, the Gold Hill Intertie (GHI), and two 6-inch water lines exist within the bridge replacement and intersection improvements project area. As a necessary component of the bridge replacement and intersection improvements project, the GHI must be relocated within the new road alignment and two 6-inch water lines must be relocated at two separate locations within public utility easements.

**Proposed Project Addition and Revision**

A portion of the GHI and two 6-inch water lines must be replaced as part of the bridge replacement and intersection improvements project. The portion of the GHI was not included in the original description or discussion of the MND. The relocation of the GHI is proposed to be replaced within the bridge replacement and intersection improvement project, and added as part of the project, as shown on the Revised Figure 2, dated February 24, 2010, below. The two 6-inch water lines were included in the MND as shown in Figure 2 dated October 2, 2008; however, they were not specifically identified in the MND project description. Furthermore, the replacement of the 6" water lines no longer extends across Tennessee Creek. Therefore, this addendum revises the project description to specifically include the two 6-inch water lines to be replaced within the bridge replacement and intersection improvements project, and as part of that project, as shown on the Revised Figure 2, dated February 24, 2010, below.



**Proposed GHI Replacement Component of Green Valley Road Bridge Replacement at Tennessee Creek / N. Shingle Road Intersection Improvements Project**

### **CEQA Authority**

El Dorado County is the lead agency and EID is a responsible agency for the Green Valley Road Bridge Replacement at Tennessee Creek / N. Shingle Road Intersection Improvements project. CEQA Guidelines Section 15164, Addendum to an EIR or Negative Declaration, allows El Dorado County to prepare an addendum to the previously adopted MND if only minor technical changes or additions are necessary or none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a Subsequent EIR or negative declaration have occurred.

### **Finding**

The proposed GHI and two 6-inch water line replacements are entirely within the project boundary of the Green Valley Road Bridge Replacement at Tennessee Creek / N. Shingle Road Intersection Improvements. The ground-disturbing effects associated with the GHI water line replacement components of the Green Valley Road Bridge Replacement at Tennessee Creek / N. Shingle Road Intersection Improvements occur within the area impacted by the County project. Mitigation measures cited in the MND would reduce environmental effects of the GHI to a less than significant level. No new significant effects would occur and the severity of previously identified effects will not be increased by completion of the GHI waterline replacements. The impacts of the two 6-inch water line replacements were previously analyzed in the MND and mitigation measures included to reduce the impact to less than significant. Therefore, none of the conditions described in CEQA Guidelines Section 15162 would occur.

Pursuant to Section 15164 (c) of the CEQA Guidelines, this addendum will not be circulated for public review. However, as required by Section 15164 (d), this addendum, along with the previously adopted MND, will be considered by the EID Board of Directors prior to making decisions about the Project. The El Dorado County Board of Supervisors will consider this addendum prior to making decisions about the Project. A Notice of Determination will be filed immediately following the consideration by El Dorado County Board of Supervisors on this Project.

**Initial Study/  
Mitigated Negative Declaration**

for the

**Green Valley Road Bridge (25C-0038)  
Replacement at Tennessee Creek/  
N. Shingle Road Intersection  
Improvements**

**CEQA Lead Agency**  
El Dorado County  
2850 Fairlane Court  
Placerville, CA 95667

**October 2008**

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## 1. INTRODUCTION

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The El Dorado County Department of Transportation (DOT) proposes to replace Green Valley Road Bridge (25C-0038) at Tennessee Creek with a larger, wider bridge. Bridge 25C-0038 is a narrow two-lane bridge that was constructed in 1930. The California Department of Transportation (Caltrans) sufficiency rating for the bridge is 48.4 and has determined that the bridge is functionally obsolete. The purpose of the project is to increase the sufficiency rating for the bridge to improve roadway safety.

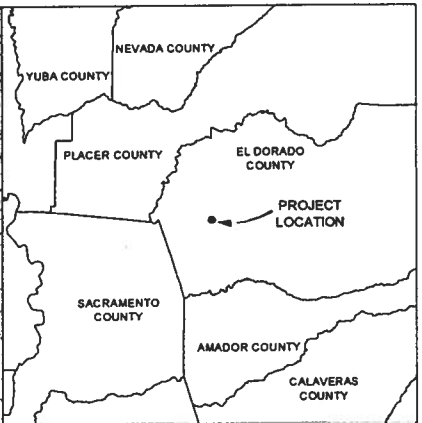
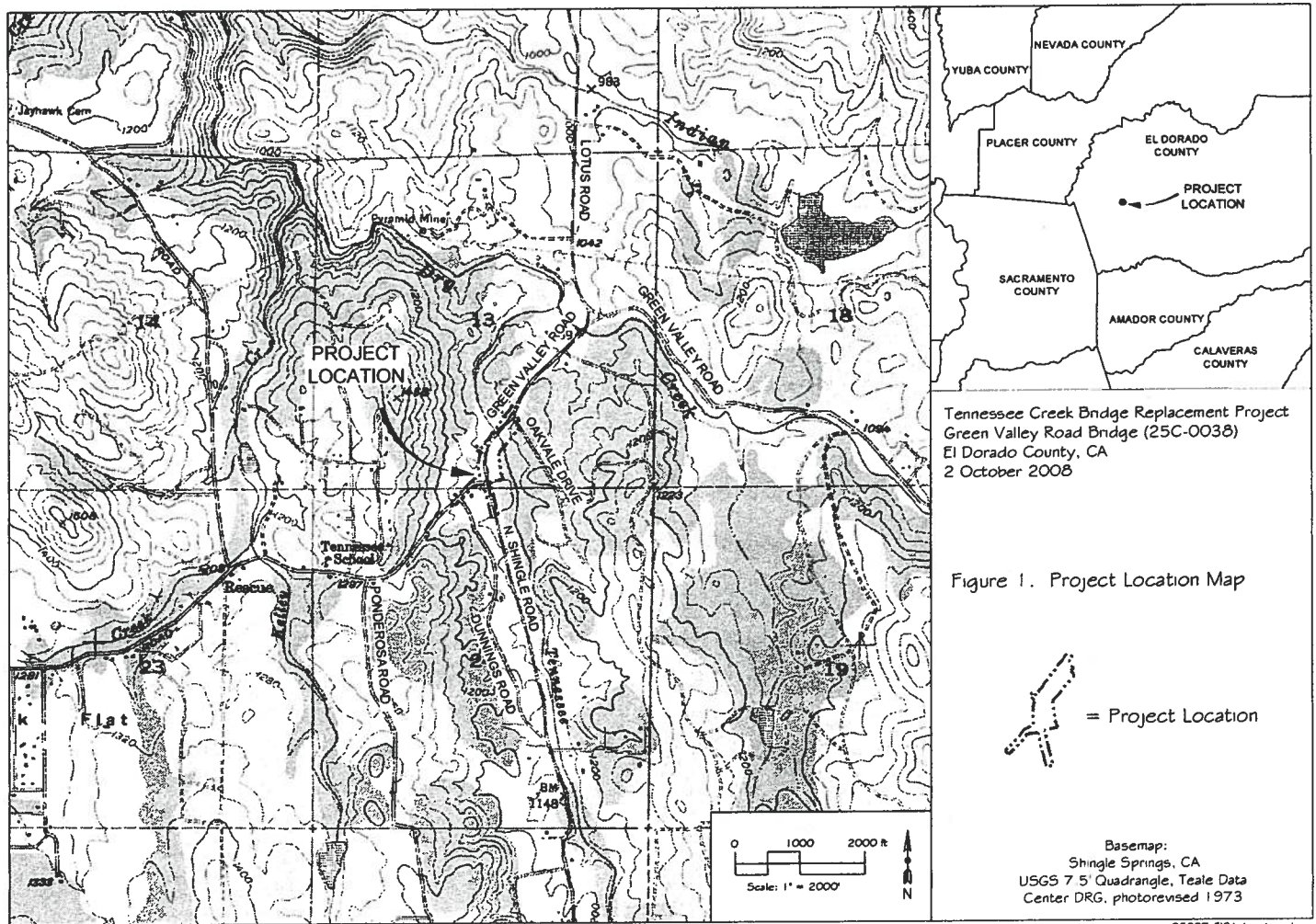
El Dorado County is eligible to receive Highway Bridge Program (HBP) funds from the Federal Highway Administration (FHWA). Caltrans District 3 Marysville Office administers the HBRR program for FHWA in El Dorado County and is responsible to ensure that the project complies with federal laws and regulations. El Dorado County is the local lead agency and prepared this Initial Study to consider the significance of potential project impacts pursuant to the California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code, Section 21000, et seq.). This Initial Study was prepared in accordance with the State CEQA Guidelines (14 California Administrative Code, Section 14000 et seq.).

Based on the results of this Initial Study, the County has determined that the project would have less than significant impacts on the environment with the incorporation of mitigation measures. The County may approve the project with the certification of a Mitigated Negative Declaration (MND).

This document includes the following sections:

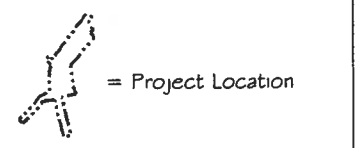
- **Section 1, Introduction**
- **Section 2, Initial Study Findings**—Summarizes the County's CEQA findings;
- **Section 3, Project Description**—Describes the project that was evaluated;
- **Section 4, Initial Study Checklists and Supporting Documentation**—Identifies the thresholds of significance, evaluates potential impacts, and describes mitigation necessary to reduce impact significance; and
- **Section 5, Supporting Information Sources**—Lists the sources used to evaluate the project.
- **Appendix A, Mitigation Monitoring and Reporting Plan**—The Mitigation Monitoring and Reporting Plan lists the mitigation measures and describes the County's policies and procedures for monitoring the implementation of the measures.





Tennessee Creek Bridge Replacement Project  
 Green Valley Road Bridge (25C-0038)  
 El Dorado County, CA  
 2 October 2008

Figure 1. Project Location Map



Basemap:  
 Shingle Springs, CA  
 USGS 7.5' Quadrangle, Teale Data  
 Center DRG, photorevised 1973

05007\_FIG1\_Location.dwg



## 2. INITIAL STUDY FINDINGS

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1. **Project Title:**  
Green Valley Road Bridge (25C-0038) Replacement at Tennessee Creek
2. **Lead agency name and address:**  
El Dorado County, Department of Transportation  
2850 Fairlane Court  
Placerville, CA 95667
3. **Contact person and phone number:**  
Dustin Harrington, Associate Civil Engineer 530/ 621-5937
4. **Project location:**  
The project is located in the rural center of Rescue, El Dorado County. From the North Shingle Road intersection, the Green Valley Road Bridge (25C-0038) Replacement project site extends 590 feet south along North Shingle Road, 580 feet southwest along Green Valley Road to the Green Valley Road/ Rose Springs intersection, and 1,297 feet north along Green Valley Road. The existing bridge is 29.5 feet long by 19.02 feet wide. **Figure 1** is a project location map. The site is on the Shingle Springs USGS topographic quad (T10N, R9E, Sections 13 and 24).
5. **Project sponsor's name and address:**  
El Dorado County, Department of Transportation  
2850 Fairlane Court  
Placerville, CA 95667
6. **General Plan designation:**  
Not applicable; El Dorado County right-of-way
7. **Pre-zoning:**  
Not applicable; El Dorado County right-of-way
8. **Description of project:**  
The project will replace the 29.5-foot long by 19.0-foot wide, two-lane, reinforced concrete girder bridge. The new bridge will be a pre-stressed slab bridge that is 64-foot long by 52-foot wide, three-lane bridge. Green Valley Road will be realigned south of Bridge 25C-0038 to improve site distance. Peaceful Garden Way and Oakvale Drive tie in with the realigned Green Valley Road. A continuous left turn median will extend from the North Shingle Road intersection past Peaceful Garden Way and transition into the northbound lane prior to Oakvale Drive. The three-way intersection of Green Valley Road and North Shingle Road will be improved with signalization and channelization. The project will replant certain oak trees that would be removed by construction of the project. A

detailed project description follows in **Section 3**. The proposed project is shown on **Figure 2**.

**9. Surrounding land uses and setting:**

The project area is located in Rescue, which El Dorado County designates as a rural center for planning purposes. Green Valley Road is a east-west rural two-lane regional road that connects the communities of Coloma, Lotus, and Placerville on the western slope of El Dorado County. N. Shingle Road connects the Community of Rescue to Highway 50 in the south. Green Valley Road Bridge crosses Tennessee Creek approximately 500 feet north of North Shingle Road.

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

The project may require permits or approvals from the following:

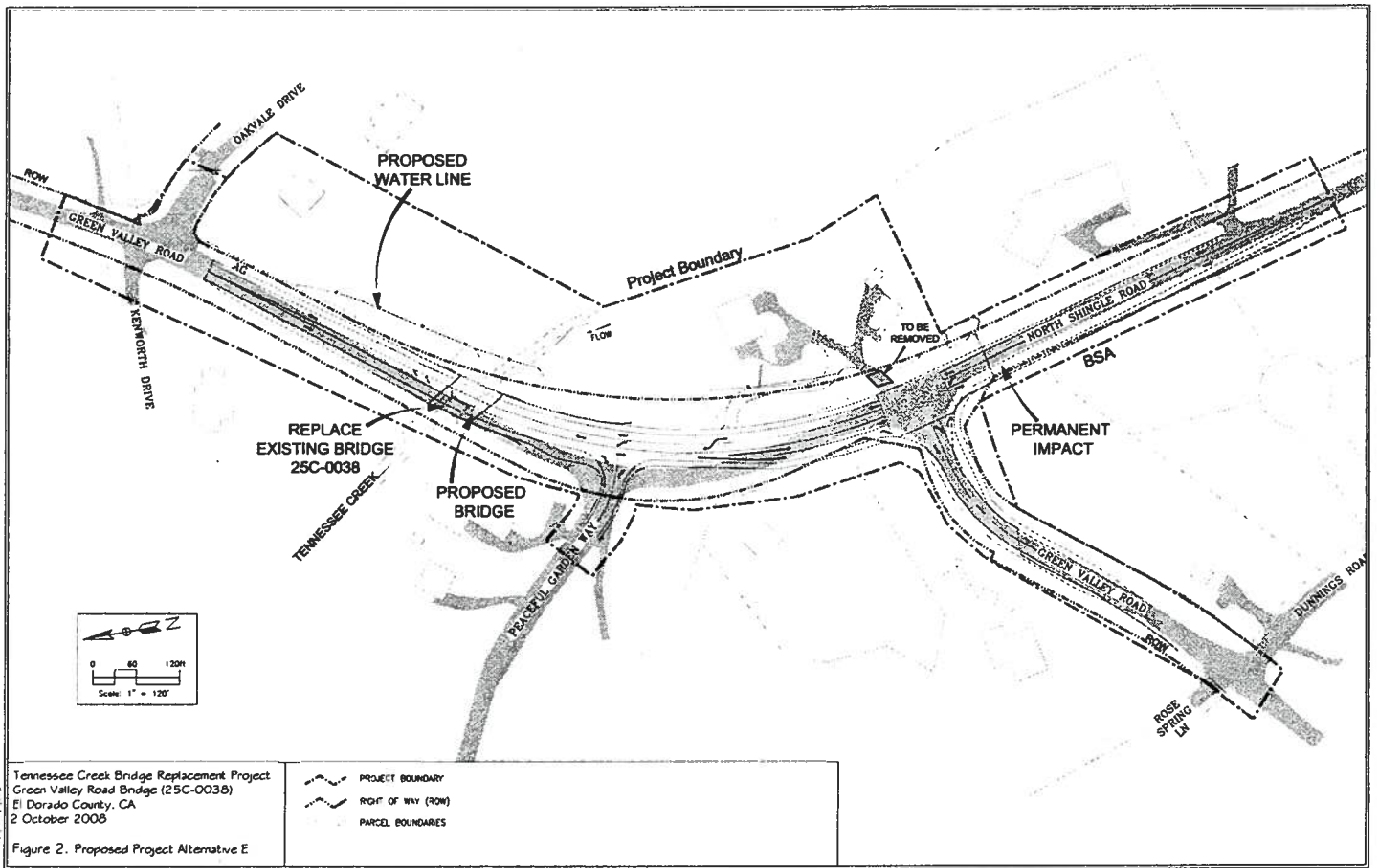
U.S. Army Corps of Engineers - Section 404 Clean Water Act Nationwide Permit

California Department of Fish and Game - Lake/Streambed Alteration Agreement

Rescue Fire Protection District – Approval of Access Realignment Design

Central Valley Regional Water Quality Control Board - General Permit for Discharges of Storm Water Associated with Construction Activity; Water Quality Certification

El Dorado County Air Quality Management District – Asbestos Dust Mitigation Plan



**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

This Initial Study has determined that the Proposed Project requires mitigation for impacts associated with the factors checked below. Mitigation measures are identified in this Initial Study that would reduce all potentially significant impacts to less-than-significant levels.

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Aesthetics           | <input type="checkbox"/> Land Use and Planning              |
| <input type="checkbox"/> Agricultural Resources          | <input type="checkbox"/> Mineral Resources                  |
| <input type="checkbox"/> Air Quality                     | <input type="checkbox"/> Noise                              |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Population and Housing             |
| <input checked="" type="checkbox"/> Cultural Resources   | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Geology and Soils               | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Transportation/Traffic             |
| <input type="checkbox"/> Hydrology and Water Quality     | <input type="checkbox"/> Utilities and Service Systems      |
| <input type="checkbox"/> None Identified                 | <input type="checkbox"/> Mandatory Findings of Significance |

**INITIAL STUDY DETERMINATION:**

On the basis of this initial evaluation:

- I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because the project-specific mitigation measures described in Section III have been added to the project. A NEGATIVE DECLARATION will be prepared.
- I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Name and Title: Janet Postlewait, Principal Planner

### **3. PROJECT DESCRIPTION**

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#### **3.1. Project Purpose and Objectives**

The purpose of the project is to replace a functionally obsolete bridge at Tennessee Creek with a functional bridge that is designed in accordance with current standards. The objective of the project is to improve driver safety in the project area by increasing the width of the bridge to accommodate car and bike traffic and to improve site distances approaching the bridge by straightening the reverse curve in Green Valley Road on the bridge's southern approach. This project (ELD16150) is identified in the Sacramento Metropolitan Transportation Plan 2027 (Sacramento Area Council of Governments July 2005). Secondly, the project is intended to improve the Green Valley Road/N. Shingle Road intersection by channelization and signalization with the intended purpose of facilitating an improved functionality of the intersection. Finally, the project is intended to facilitate safer ingress and egress to the numerous roads and driveways within the project boundary by constructing a continuous left turn lane between the intersections of Green Valley/N. Shingle Road and Green Valley/Oakvale/Kenworth Drive.

#### **3.2. Project Alternatives**

Five bridge design alternatives and three intersection options were evaluated.

##### **3.2.1. No-Project Alternative**

Under the No-Project Alternative, the existing bridge would remain in its current condition. No repairs or improvements would be made. The No-Project Alternative does not meet the County's need for replacement of a functionally obsolete bridge.

##### **3.2.2. Project Alternative A**

Project design Alternative A includes a bridge alignment with a 750 ft horizontal curve (slopes represent 2:1 fill and 1:5:1 cut) constructed in stages over two seasons. During the first construction season, the northbound half of the new bridge would be constructed. Traffic would be routed on the existing bridge. During the second construction season, the existing bridge would be removed and the southbound half of the new bridge constructed. Roadwork would be performed adjacent to the existing road, and minor tie-ins would be made to driveways. Overhead utilities would need to be relocated. It is anticipated that construction of Alternative A would take two or more years to complete. This design would either require about 400 ft<sup>2</sup> of right-of-way (ROW) acquisition to allow for a fill slope on the east side of Green Valley Road north of Tennessee Creek or construction of a 175 ft long, 3.5 ft high retaining wall to catch the slope within existing ROW limits. The construction footprint for Alternative A is 2.90 ac. Fifty-three native oak trees would be removed.

##### **3.2.3. Project Alternative B**

Project design Alternative B includes a new bridge within the existing alignment, and roadway widening constructed in two stages. This alternative would require

one-way controlled traffic on the existing bridge and traffic control devices along the entire length of this Project during construction. Widening within the current cut slope corridor south of the bridge would require 1,300 ft<sup>2</sup> of ROW acquisition, or a 260 ft long, 12 ft high wall. The bridge approach fill slope would require 1,100 ft<sup>2</sup> of ROW acquisition, or a 240 ft long, 3 ft high wall. An existing EID water main on the east of Green Valley Road could be affected, and overhead utilities may need to be relocated. Alternative B was removed from consideration due to ROW acquisition, retaining walls, and traffic impacts that would occur during construction.

#### **3.2.4. Project Alternative C**

Project design Alternative C includes single-stage bridge construction. For Alternative C, the entire bridge would be located upstream of the existing bridge, whereas for Alternative A, the bridge would be shifted just slightly upstream. Roadway work for Alternative C would be performed adjacent to the existing road, and minor tie-ins would be made to driveways. The existing bridge would continue to be used by traffic during bridge construction and removed once the new bridge is completed. The new bridge would be set on or near the eastern ROW. The fill slope would encroach 200 ft beyond the ROW, and cover 3,500 ft<sup>2</sup>. To keep the road slope in the ROW, a 450 ft long, 12 ft high wall would be needed along the eastern edge of the ROW. With the construction of the retaining walls, the fill slope would not extend beyond the water main easement. Portions of the waterline on the east would be affected if walls were not constructed. Overhead utilities would need to be relocated. The total construction footprint for Alternative C is 2.78 ac. Forty native oak trees would be removed.

#### **3.2.5. Project Alternative D**

Project design Alternative D includes single-stage bridge construction with a temporary detour bridge. The detour bridge would be built just west of the existing structure, and would require approach fill construction. Roadway improvements would occur immediately adjacent to the existing road, and minor tie-ins would be made to driveways. The bridge would be set 9 ft from the east ROW. The fill slope would encroach 16 ft out of the ROW, covering 4,000 ft<sup>2</sup>. To keep the road slope with the ROW, a 360 ft long, 9 ft high wall would be needed along the eastern edge of the ROW. Overhead utilities would need to be relocated. An existing water main is located east of the bridge and extends north, and portions of the waterline on the east could be affected if walls were not constructed. Alternative D was removed from consideration due to significant impacts associated with the installation of the temporary bridge.

#### **3.2.6. Project Alternative E**

Project design for Alternative E (Figure 2) includes a wider bridge that accommodates a continuous two-way left-turn lane from north of Peaceful Garden Way to facilitate movement at Peaceful Garden Way and the Freeman Driveway (a private residence). The center two-way lane continues across the wider bridge on Tennessee Creek and transitions to the existing lane configuration south of Oakvale Drive. The new bridge location for Alternative E is similar to Alternative A, but



shifted slightly upstream. The two-way left-turn lane is extended southward to the North Shingle Road intersection to provide the appropriate geometry at the intersection. This alternative would remove 51 native oak trees.

### **3.3. Intersection Options**

#### **3.3.1. Intersection Option A**

Intersection Option A includes one lane in all directions, with a right turn pocket for southbound Green Valley Road traffic heading west on Green Valley Road. One- or three-way stop control or signalized intersections would be used. Addition of a northbound left turn lane would be required in the future. Work would be completed throughout the first or the second stage of the bridge replacement. The northwest corner would need 1,100 ft<sup>2</sup> of ROW to accommodate cut slopes. To keep the road slope within the ROW, a 120 ft long, 5 ft high wall would be needed. Intersection Option A was removed from consideration because it does not provide the needed turn lanes and a traffic signal is now warranted.

#### **3.3.2. Intersection Option B**

Intersection Option B is similar to option A, but includes a left turn lane for northbound North Shingle Road traffic heading westbound on Green Valley Road. The northwestern corner and along the west side of North Shingle Road would need 3,900 ft<sup>2</sup> of ROW to accommodate the proposed geometry and cut slopes. This is the preferred intersection option.

#### **3.3.3. Intersection Option C**

Intersection Option C is similar to Option B, except that impacts are on the east side of the ROW. The east side of North Shingle Road would need 2,000 ft<sup>2</sup> of ROW to accommodate cut and fill slopes. To keep the road slope within the ROW, a 400 ft long, 18 ft high wall would be needed on the east side of the road. The west side would need 500 ft<sup>2</sup> of ROW. To keep the road slope within the ROW, a 150 ft long, 5 ft high wall would be needed. Overhead utilities on the west side of North Shingle Road, and the crossover at the intersection would need to be relocated. Intersection Option C was removed from consideration due to unacceptable ROW impacts to the property located east of Green Valley Road between Tennessee Creek and the North Shingle Road intersection.

### **3.4. Preferred Alternatives**

The five bridge design alternatives and the three intersection options were evaluated based on design speed, slope easements, hydraulics, erosion, environmental concerns, and cost. Equal weight was applied to each of the criteria. Design speed criteria was established by El Dorado County for 45 mph for a Type II collector without parallel-street parking. Based on this evaluation, the bridge replacement choices were narrowed down to Alternatives A, C, and E. Alternative E is the preferred alternative due to safer turning movements for the Green Valley Road at Peaceful Garden intersection. Intersection Option B will be used regardless of which bridge alternative is chosen. The Project will not decrease the

capacity of the Tennessee Creek channel, change the base flood elevations, or change the natural flood plain values.

### **3.5. Construction Methods**

The County is evaluating the use of retaining walls on the northwest corner of the North Shingle/Green Valley intersection, approximately 100' north and west, and at the bridge on the east side. The County may acquire additional right-of-way at these two locations to eliminate or minimize the use of retaining walls.

The bridge construction window will generally be 15 April through 15 October; however, work outside of those time frames may be performed depending on weather and stream flow conditions. For Alternative E, the replacement bridge will be built in two stages over two construction seasons. Construction of the new bridge and falsework may require diversion and/or dewatering of Tennessee Creek. While the creek is typically dry during summer and fall months, the creek may need to be diverted away from the abutments during construction. Excavations at the abutments may need to be dewatered. Flows, if any, would pass through the existing creek under the bridge. Diversion methods may include the use of water pillows, rock, sandbags, sheet piling, pipes or coffer dams or other structural methods approved by the Project Engineer and DFG.

Groundwater and seepage in the dewatered area will be removed in accordance with Section 401 of the Clean Water Act (CWA). Best management practices (BMPs) will be implemented during construction to prevent concrete or other materials from entering the channel.

Rock slope protection (RSP) will be used to stabilize the creek banks and protect the bridge abutments from scour. The RSP will extend from the bed of the creek below the ordinary high water mark (OHWM) to the top of bank above the OHWM. The RSP will extend from under the bridge to the upstream and downstream limits of the ROW.

General bridge construction equipment expected to be used includes, but is not limited to: haul trucks, backhoes, dump delivery trucks, bulldozers, pile driving equipment, scrapers, water trucks, concrete delivery trucks, and service vehicles. Flagmen will control the flow of traffic.

### **3.6. Construction Contract**

The El Dorado County DOT would retain a construction contractor to construct the proposed improvements. The contractor would be responsible for compliance with all applicable rules, regulations and ordinances associated with proposed bridge replacement activities and for implementing construction-related mitigation measures. El Dorado County DOT would provide construction contractor oversight and management and would be responsible for verifying implementation of the mitigation measures. The contractor would construct the proposed bridge replacement in accordance with the Public Contracts Code of the State of

California, the State of California Department of Transportation Standard Plans and Standard Specifications, and the Contract, Project Plans, and Project Special Provisions under development by the County of El Dorado Department of Transportation. The following are a combination of standard and project-specific procedures/requirements applicable to project construction:

- Construction contract special provisions will require that a traffic management plan be prepared. The traffic management plan will include construction staging and traffic control measures to be implemented during construction to maintain and minimize impacts to traffic during construction. Minor traffic stoppages or delays may be allowed if necessary during project construction. Full roadway closures will be avoided during project construction and provisions for emergency vehicle movement through the project area will be provided at all times during construction;
- Contract special provisions will require compliance with El Dorado County Air Quality Management District (AQMD) Rules 223 and 223-1 to minimize fugitive dust emissions. The map of natural occurring asbestos (NOA) areas in El Dorado County (<http://www.co.el-dorado.ca.us/emd/apcd/PDF/Map.pdf>) shows the project site is within a quarter mile for areas "More Likely to Contain Asbestos or Fault Line." Pursuant to AQMD District Rule 231-2 an Asbestos Management Plan will be prepared and approved by the AQMD for dust control during construction and grading operations;
- Compliance with the California Air Resources Board Airborne Toxic Control Measure at Title 17 Section 93105 addressing Construction, Grading, Quarrying, and Surface Mining activities and with the Asbestos ATCM for Surfacing Applications (California Code of Regulations, Title 17, Section 93106);
- Contract provisions will require contractor to test existing yellow thermoplastic and yellow painted traffic stripe and pavement markings for the concentration of lead chromate. If the results demonstrate that the concentration is equal to or greater than 1,000 mg per kilogram, then the contractor shall dispose of the removed yellow thermoplastic and yellow paint at a Class 1 disposal facility or a Class 2 disposal facility if the disposal facility is permitted by the Central California Regional Water Quality Control Board for disposal of heavy metals.
- Contract provisions will require notification of El Dorado County DOT and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.94 et seq., regarding the discovery and disturbance of human remains should any human remains be discovered during project construction;

- Contract provisions will require compliance with the El Dorado County Grading Ordinance and Storm Water Management Plan for Western El Dorado County and implementation of Best Management Practices as identified in the National Pollutant Discharge Elimination System (NPDES) permit and/or Storm Water Management Plan;
- El Dorado County DOT or its construction contractors will conduct early coordination with utility service providers, law enforcement and emergency service providers to ensure minimal disruption to service during construction;
- El Dorado County DOT and its construction contractors will comply with the State of California Standard Specifications for Construction of Local Streets and Roads (July 2002), written by the State of California Department of Transportation, for public service provision;
- Access to adjacent residential properties will remain open at all times during the construction period; and
- The project would comply with General Plan Policy 6.5.1.11 pertaining to construction noise.

### 3.7. Project Schedule

The project is scheduled to commence in 2009 and is expected to take two construction seasons to complete. The project alternative ultimately selected will determine the duration of construction.

### 3.8. Permits and Regulatory Approvals

Table 3-1 provides a preliminary listing of the potential permits or other regulatory approvals that may be required for the project.

Table 3-1. Potential Permits and Regulatory Approvals Required for the Project

Approving Agency	Required Permit/Approval	Required For
<b>Federal Agencies</b>		
Army Corps of Engineers	<b>Nationwide Section 404 Discharge Permit.</b> (Clean Water Act, 33 USC 1341)	Discharge of dredge/fill material into "Waters of the United States," including wetlands.
<b>State Agencies</b>		
State Water Resources Control Board, Regional Water Quality Control Board	<b>General Construction Activity Storm Water Permit. Notice of Intent.</b> (40 CFR Part 122)	Storm water discharges associated with construction activity.
	<b>National Pollutant Discharge Elimination System Permit.</b> (Clean Water Act, 33 USC 1251 <i>et seq.</i> )	For storm water discharges associated with industrial activity, unless covered by individual NPDES permit.
	<b>Waste Discharge Requirements.</b> (Water Code 13000 <i>et seq.</i> )	Discharge of waste that might affect groundwater quality.

	<b>Water Quality Certification</b> (Clean Water Act), if project requires Army Corps of Engineers 404 permit.	Discharge into "Waters of the U.S.," including wetlands (see Army Corps of Engineers Section 404 Permit above).
Department of Fish and Game	<b>Lake/Streambed Alteration Agreement.</b> (Fish and Game Code 1600)	Change in natural state of river, stream, lake (includes road or land construction across a natural streambed) which affects fish or wildlife resource.

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**Local Agencies**

El Dorado County Air Quality Management District	<b>Fugitive Dust – Asbestos Hazard Mitigation</b> (District Rule 223-2)	Reduce the amount of naturally occurring asbestos entrained in the ambient air as a result of construction.
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## 4. INITIAL STUDY CHECKLISTS AND SUPPORTING DOCUMENTATION

The Initial Study Checklist evaluates the significance of potential project impacts. Mitigation measures are described for potentially significant impacts. The evaluation of the project in the Initial Study Checklist is based on observation of existing site conditions in the PSA, review of relevant literature, and discussions with County staff and agencies.

### 4.1. Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
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?				✓
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 day or nighttime views in the area?			✓	

#### 4.1.1. Environmental Setting

The Project is in the western foothills of the Sierra Nevada Mountains, at an elevation of approximately 1,090 to 1,145 ft. It is located in a relatively rural area of El Dorado County. The Project area includes a segment of Green Valley Road, and intersections with North Shingle Road, Peaceful Garden Way, Oakvale Drive, and Kenworth Drive. In some areas, the project area extends beyond the ROW onto private land. The project vicinity includes the existing roads, disturbed areas along the shoulders of the roads, driveways, homes and accessory structures, and horticultural landscaping near the homes.

The primary biological communities in the study area are Tennessee Creek and mixed oak woodland. Rural residences occur in and near the study area. Mixed oak woodland occurs in and around the project limits. The dominant trees in the mixed oak woodland are blue oak, valley oak and interior live oak with ponderosa pine and gray pine occurring in lesser abundance. The mixed oak woodland includes open patches of grasses and forbs lacking tree canopy.



#### 4.1.2. Potential Environmental Effects

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

**Less than significant impact.** A scenic vista can be describes as the view of an area that is visually or aesthetically pleasing. Aesthetic components of a scenic vista include; 1) scenic quality, 2) sensitivity level, and 3) view access.

Table 5.3-1 of the General Plan EIR identifies multiple scenic views and resources. There are no identified scenic vistas within or near the vicinity of the project site.

- b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

**No Impact.** The nearest scenic highway designation is on U.S. 50 between and within the City of Placerville and the Tahoe Basin. This designation occurs approximately 7.5 miles east of the proposed project area. As such, the project would not affect aesthetic resources within the proximity of a State scenic highway.

- c) *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

**Less Than Significant with Mitigation.** The Green Valley Road Bridge over Tennessee Creek is identified in the Capital Improvement Program (CIP) for replacement. Additionally, Green Valley Road widening between the Rescue community and Lotus Road has been identified as a future component of the CIP.

An Abbreviated Visual Impact Assessment based on the guide for "Visual Impact Assessment for Highway Projects" Federal Highway Administration (FHWA), March 1981, was prepared for the project. The Assessment evaluated potential project impacts to the existing visual character of the project area (Sycamore Environmental Consultants, July 2008). Construction of the project would result in physical change to the visual characteristics of the immediate project area by replacing the existing bridge with a new bridge structure, widening roadways to County standards, and signaling an intersection. Several intersection options could potentially result in the need for retaining walls over four feet tall, up to 12 feet in areas. The preferred project does not propose retaining walls. This combination of features may result in a change to the visual character of the project area, especially for the non-preferred alternatives.

The proposed project is not anticipated to substantially degrade the visual quality of the project area. Tall retaining walls have been reduced in overall scale as the project has gone through refinement. Such retaining walls are not typically encountered in rural setting, may be out of character, and potential targets for vandalism. Retaining walls at or below 4' in height would not be out of character for the area, however, and would not require mitigation. Should retaining walls exceed 4' in height, the following mitigation measure would reduce the impact to the visual character of the rural setting to less than significant.

Mitigation Measure 4.1.2.1

- Impacts to the viewshed created by the retaining walls at the Green Valley/North Shingle roads intersection shall be given an aesthetic treatment. A "natural stone" look could be accomplished with the use of a rock gravity type wall or similar treatment.
- Alternatively, the County may acquire the necessary right-of-way or slope easements, so no retaining wall, would be necessary

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

**Less Than Significant.** The project includes signalization of the Green Valley Road/North Shingle Road intersection. A component of this signalization project is the provision of safety lighting which necessarily introduces a new source of light which would change the nighttime views in the project area. Light from street lighting would be directional and shielded and would not appreciably increase light and glare sources beyond the roadways and would result in a less-than-significant impact.

## 4.2. Agricultural Resources

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
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In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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) Involve other changes in the existing environment which, due to their location or nature, could result in conversion?

✓

### 4.2.1. Environmental Setting

The PSA is located in a rural residential area. No *Prime Farmland, Unique Farmland, or Farmland of Statewide Importance* or lands under Williamson Act contracts occur in the PSA.

### 4.2.2. Potential Environmental Effects

a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

**No Impact.** No *Prime Farmland, Unique Farmland, or Farmland of Statewide Importance* would be affected by the project.

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

**No Impact.** No lands either zoned for agricultural uses or subject to a Williamson Act contract exist within or adjacent to the project area.

- c) *Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

**No Impact.** Farmland and agricultural uses do not occur on or in the vicinity of the project site. The project is located in a rural area of El Dorado County and will not change the rural nature. The project will not result in the conversion of farmland to non-agricultural use.

### 4.3. Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				✓
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
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 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?			✓	

#### 4.3.1. Environmental Setting

The project area is located in the Mountain Counties Air Basin (MCAB). The San Francisco Bay Area Air Basin and the Sacramento Valley Air Basin are located to the west, and the San Joaquin Valley Air Basin is located to the south. Climate in the MCAB relate to elevation and proximity to the Sierra Ridge. Precipitation is greater and temperatures are lower at higher elevations. The alternate is true in the western portion of the basin. Summer temperatures in the PSA are in the mid- to upper nineties. Winter temperatures are in the upper thirties to lower forties. Average precipitation in the PSA is 1.46 inches per month with the majority of rainfall in the months of January through March.

The air quality of a region is determined by the air pollutant emissions (quantities and type of pollutants measured by weight) and by ambient air quality (the concentration of pollutants within a specified volume of air). Air pollutants are characterized as primary and secondary pollutants. Primary pollutants are those emitted directly into the air, for example carbon monoxide (CO), and can be traced to a single pollutant source. Secondary pollutants are those pollutants that form through chemical reactions in the atmosphere, for example reactive organic gasses (ROG) and nitrogen oxides (NOX) combine to form ground level ozone, or smog.

The Federal Clean Air Act of 1977, established national ambient air quality standards (NAAQS). Primary standards are set to protect public health. These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect other values. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed "criteria" pollutants. California has adopted its own, more stringent, ambient air quality standards (CAAQS). Table 4-1 lists the State and federal AAQS. Ozone and PM10 are nonattainment pollutants in the MCAB. The MCAB is in attainment of CO, SO2, NO2, and lead.

Table 4-1. Federal and State Air Quality Standards Pollutant Averaging Time  
Federal Standard State Standard

Pollutant	Averaging Time	Federal Standard	State Standard
Ozone	1-hour	--	0.09 ppm
	8-hour	0.08 ppm	--
Carbon Monoxide	1-hour	35.0 ppm	9.0 ppm
	8-hour	9.0 ppm	--
Nitrogen Dioxide	Annual	0.05 ppm	--
	1-hour	--	0.25 ppm
Sulfur Dioxide	Annual	0.05 ppm	--
	24-hour	0.14 ppm	0.05 ppm
	1-hour	--	0.25 ppm
PM <sub>10</sub>	24-hour	150 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>
PM <sub>2.5</sub>	Annual	15 µg/m <sup>3</sup>	--
	24-hour	65 µg/m <sup>3</sup>	--
Lead	30-day average	--	1.5 µg/m <sup>3</sup>
	Month average	1.5 µg/m <sup>3</sup>	--

ppm = parts per million  
µg/m<sup>3</sup> = Micrograms per Cubic Meter

The El Dorado County Air Quality Management District (AQMD) administers the State and federal Clean Air Acts in accordance with State and federal guidelines. The AQMD regulates air quality through its district rules and permit authority. It also participates in planning review of discretionary project applications and provides recommendations.

The following District rules apply to the Proposed Project:

- Rule 223 Fugitive Dust – General Requirements
- Rule 223-1 Fugitive Dust – Construction Requirements
- Rule 224 – Cutback Asphalt

These rules regulate fugitive dust (including that potentially containing NOA) generated by construction activities and require appropriate mitigation measures to reduce air quality impacts. Rule 224 relates to asphalt cement that has been liquefied by blending with petroleum solvents.

El Dorado County AQMD's Guide to Air Quality Assessment (2002) specifies specific daily emissions thresholds that can be used to determine the significance of



project emissions. Thresholds of significance for specific pollutants of concern are as follows:

- ROG: 82 lbs/day
- NO<sub>x</sub>: 82 lbs/day
- CO: AAQS
- PM<sub>10</sub>: AAQS

#### 4.3.2. Potential Environmental Effects

The project would result in short-term, temporary air pollutant emissions from construction activities. Construction emissions were estimated for the project using the Sacramento Air Quality Management District's *Road Construction Emissions Model, Version 5.1* as recommended in the El Dorado County AQMD *Guide to Air Quality Assessment*. The results are in **Table 4-2**.

Table 4-2. Estimated Construction Emissions

Project Phases	ROG lbs/day	CO lbs/day	NO <sub>x</sub> lbs/day	PM <sub>10</sub> lbs/day	Exhaust PM <sub>10</sub> lbs/day	Fugitive Dust PM <sub>10</sub> lbs/day
Grubbing/land clearing	8	37	40	12	2	10
Grading/excavation	8	40	45	12	2	10
Drainage/utilities/sub-grade	9	38	40	12	2	10
Paving	3	15	19	1	1	0
Maximum lbs/day	9	40	45	12	2	10
Significance Threshold	82	AAQS	82	AAQS	N/A	N/A
Significant?	NO	NO	NO	NO	N/A	N/A

<sup>1</sup> As noted in the AQMD CEQA Guide, CO and PM<sub>10</sub> Total Average Daily Emissions are calculated in lbs/day when using the Roadway Construction Emissions Model and must be converted to ambient concentrations. See **Table 4-3** for CO Concentration and Significance Determination. Data entered to emissions model: Project Start Year: 2008; Project Length (months): 24; Total Project Area (acres): 7; Total Soil Imported/Exported (yd<sup>3</sup>/day): 100. PM<sub>10</sub> estimates assume 50% control of fugitive dust from watering and associated dust control measures.

Total PM<sub>10</sub> emissions are the sum of *exhaust* and *fugitive dust* emissions.

Source: Emissions estimated using Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model, Version 5.1

Operational impacts from the emission CO, PM<sub>10</sub> and other pollutants such SO<sub>2</sub>, NO<sub>2</sub>, sulfates, lead, and hydrogen sulfide for surface transportation projects are considered less than significant if the project is identified on a regional Transportation Improvement Plan (EAQMD February 2002). The proposed project is identified as ELD16150 in the Sacramento Metropolitan Transportation Plan 2027 (Sacramento Area Council of Governments July 2005).

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

**No Impact.** The proposed project is identified as ELD16150 in the Sacramento Metropolitan Transportation Plan 2027 (Sacramento Area Council of Governments July 2005).

b) *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

**Less Than Significant.** El Dorado County is in nonattainment status for both federal and state ozone standards and the state PM<sub>10</sub> standard. Construction activities would result in short-term increases in emissions from the use of heavy equipment that generate dust, exhaust, and tire-wear emissions and from paints and coatings. Project construction would create short-term increases in ROG, NO<sub>x</sub>, and PM<sub>10</sub> emissions from vehicle and equipment operation. None of the estimated emissions exceed the County's significance threshold (**Table 4-2**).

c) *Would the project 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 that exceed quantitative thresholds for ozone precursors)?*

**No Impact.** The proposed project is identified as ELD16150 in the Sacramento Metropolitan Transportation Plan 2027 (Sacramento Area Council of Governments July 2005).

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

**Less Than Significant.** The project is located mapped by the County as an area "more likely to contain naturally occurring asbestos" (NOA). Taber Consultants conducted an Initial Site Assessment on the project site. Samples were collected from five borings in the current roadway for NOA. Only one sample, taken from a location 250 feet south of the bridge showed any NOA. The amount of NOA at that location was indicated as trace (<1%) (Taber December 2006).

Projects in these areas are required to comply with AQMD Rule 223-2 Asbestos Hazard Mitigation. This rule is designed to reduce the amount of naturally occurring asbestos entrained in the ambient air as a result of construction. Compliance with District Rule 223-2 ensures that NOA impacts are less than significant.

Adjacent residences have the potential to be exposed to PM<sub>10</sub>, CO, ROG, and NO<sub>x</sub> during construction. These impacts are considered less than significant due to the limited nature of the project and short-term construction period.

e) *Would the project create objectionable odors affecting a substantial number of people?*

**Less Than Significant.** Construction activities would involve the use of construction equipment and asphalt paving which have distinctive odors. Odors are considered less than significant because of the limited number of the public affected and the short-term nature of the emissions.

**Climate Change:** Assembly Bill 32 adopted in 2006 established the Global Warming Solutions Act of 2006 which requires the State to reduce greenhouse gases (GHGs) by approximately 25 percent by 2020. GHGs are thought by some to contribute to global warming/climate change and associated environmental impacts. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide. The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms). GHG emissions from the project would be produced from the materials used in the new bridge construction as well as construction-related vehicle emissions.

As this is a recent requirement, information and thresholds are not yet established locally or by the State to determine the incremental impact of a project on climate change, or on the State's target of 25% emission reduction. Although "Climate change" as a specific or distinct topic was not mentioned in the 2004 General Plan; the related topics of pedestrian-friendly land use and design features, transportation and circulation, energy efficiency, air quality, and waste management were addressed and are prominent in that document. These policies are effective in reducing GHGs and minimizing impacts from climate change. On 25 March 2008, the El Dorado County Board of Supervisors approved Resolution 29-2008, establishing goals for reducing the effects of GHGs. These goals include promoting pedestrian and bicycling commuting and promoting programs and designs that reduce traffic congestion.

The project is consistent with General Plan policies for land use, circulation, and air quality that seeks to coordinate land use and transportation planning and encourage alternatives to automobile transportation and a reduction in vehicle usage. It is also consistent with Resolution 29-2008, in that the design more efficiently moves traffic through the intersection and provides a road cross-section that accommodates non-motorized transportation consistent with the Bicycle Transportation Plan.

The proposed bridge replacement project makes no changes to the goals or land use designations of the General Plan and would not result in the generation of additional vehicle trips. As such, the project would result in no development beyond that already considered in 2004. So, while the project would have an incremental contribution within the context of the County and region, the individual impact is considered less than significant.

#### 4.4. Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
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, regulations or by the California Department of Fish and Game or US 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 a tree preservation policy or ordinance?			✓	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			✓	

##### 4.4.1. Environmental Setting

The project area includes Green Valley Road, a 139 ft section of Oakvale Drive, a 139 ft section of Peaceful Garden Way, and a 580 ft section of North Shingle Road. Tennessee Creek flows in a northwesterly direction through the project area. The project area covers 7.52 ac.

The project area is in hydrologic unit code 18020129, South Fork American and is located at 120W 55' 58", 38N 43' 22" (CA State Plane Zone 2, North American Datum 1983). The elevation of the existing Green Valley Road Bridge is approximately 1,119 ft above sea level. Tennessee Creek, a seasonal wetland, and an ephemeral channel occur in the BSA.

Vegetative communities in the project area include: mixed oak woodland, riparian woodland along Tennessee Creek, a seasonal wetland, an ephemeral drainage, and annual grassland. Large-lot rural residential properties, with horticultural landscaping, occur in and adjacent to the project area. Ruderal species, including Italian thistle, yellow star-thistle, annual beard grass, and medusa head, occur throughout the BSA.

Mixed oak woodland occurs in and around the BSA. Dominant species include blue oak (*Quercus douglasii*), ponderosa pine (*Pinus ponderosa*), and gray pine (*Pinus sabiniana*). Valley oak and interior live oak (*Quercus wislizenii* var. *wislizenii*) trees occur in natural areas and on road cuts between the North Shingle Road intersection and Peaceful Garden Road.

Valley oak and blue oak are the dominant overstory species in the riparian woodland community along both sides of Tennessee Creek. Himalayan blackberry is the dominant understory species east of the Green Valley Road Bridge. Ruderal species, including Italian thistle, yellow star-thistle, and wild oat (*Avena fatua*) occur west of the bridge.

Tennessee Creek is mapped as a perennial stream on the USGS Shingle Springs quad map and as R3UBH (Riverine, Upper Perennial, Unconsolidated Bottom, Permanently Flooded) on the NWI map (USFWS 1987). Tennessee Creek flows under Green Valley Road and into Dry Creek approximately 0.5 mi north of the BSA. During winter surveys, Tennessee Creek had a width of 20 ft and a depth of 3 to 4 ft at the bank. During surveys in June and July, little to no flow was observed. Shallow pools were observed in summer along portions of the creekbed throughout the BSA and beneath the bridge. Algal mats, 0.5 to 2 in thick, occurred at several locations in the creekbed. By August 2006, Tennessee Creek was entirely dry and no pools were present.

A seasonal wetland occurs east of North Shingle Road. Runoff from horticultural landscaping originates at the western boundary of the BSA, flows in the ephemeral drainage, and empties into the seasonal wetland. Dominant species in the seasonal wetland included greater periwinkle (*Vinca major*), cattail (*Typha latifolia*), and curly dock (*Rumex crispus*).

An ephemeral drainage occurs along the north side of eastbound Green Valley Road. Water in this drainage crosses under Green Valley Road through a culvert, and continues along the south side of eastbound Green Valley Road towards the North Shingle Road intersection. The drainage meanders south along North

Shingle Road, and ends at a culvert under North Shingle Road. Water from the ephemeral drainage ditch continues through the culvert and enters a seasonal wetland on the east side of North Shingle Road. Most of the ephemeral drainage is unvegetated. Species in the ephemeral drainage include Italian ryegrass (*Lolium multiflorum*), hedgehog dogtail (*Cynosurus echinatus*), and curly dock.

The Project will have no effect on federal listed species or critical habitat. Tennessee Creek is not designated as essential fish habitat (EFH) for Pacific salmon. Tennessee Creek is a tributary to the South Fork American River upstream of Folsom Dam. Folsom Dam is an impassable dam that represents the upstream limit of EFH for Pacific salmon on the American River.

The Natural Environment Study for the replacement of Bridge 25C-0038 evaluated for the following species:

- Vernal pool fairy shrimp
- Vernal pool tadpole shrimp
- Valley elderberry longhorn beetle
- Lahontan cutthroat trout
- Delta smelt
- Central Valley steelhead
- Central Valley fall/ late fall-run Chinook salmon
- Central Valley spring-run Chinook salmon
- Winter-run Chinook salmon
- Foothill yellow-legged frog
- California red-legged frog
- Mountain yellow-legged frog
- Northwestern pond turtle
- California horned lizard
- Northern goshawk
- Tricolored blackbird
- Swainson's hawk
- White-tailed kite
- Bald eagle
- Fisher
- Migratory birds
- Silver-haired bat
- Yuma myotis bat
- Jepson's onion
- Nissenan manzanita
- Big-scale balsamroot
- Stebbins' morning glory
- Pine Hill ceanothus
- Red Hills soaproot
- Brandegee's clarkia
- Tuolumne button-celery
- Pine Hill flannelbush
- El Dorado bedstraw
- Bisbee Peak rush-rose
- Parry's Horkelia
- Hartweg's golden sunburst
- Tahoe yellow cress
- Valley sagittaria
- Layne's butterweed (ragwort)
- El Dorado County mules ears
- Oval-leaved viburnum
- El Dorado County Mule Ears

The project area was determined to be unoccupied for the following species:

- California red-legged frog
- Foothill yellow-legged frog
- Northwestern pond turtle
- Migratory birds
- Silver-haired bat
- Yuma myotis bat
- Jepson's onion
- Red Hills soaproot
- Brandegee's clarkia
- Pine Hill ceanothus
- Pine Hill flannelbush
- Bisbee Peak rush-rose
- Parry's Horkelia
- Layne's butterweed (ragwort)



- Big-scale balsamroot
- Oval-leaved viburnum

Habitat for the following species could be occupied at the time of construction. This biological resources section will evaluate potential impacts for the following species:

- Northwestern pond turtle
- Migratory birds
- Silver-haired bat
- Yuma myotis bat

#### **4.4.2. Potential Environmental Effects**

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

##### ***Less Than Significant with Mitigation Incorporation.***

Potential impacts to biological and wetlands resources were evaluated in a Natural Environment Study (NES; Sycamore Environmental 2008). The NES is a standard Caltrans format for documenting project impacts; the NES was reviewed and approved by Caltrans.

California red-legged frog (CRLF; *Rana aurora draytonii*) Protocol surveys for CRLF were conducted. The BSA was found to be unoccupied by CRLF and outside the dispersal area of known populations in El Dorado County which are over 20 miles away. The USFWS indicates that the project is unlikely to adversely affect the species provided the following conservation measures are implemented.

##### **Mitigation Measures 4.4.2.1**

- In-water construction activities will be from April 15 and October 15, subject to the Streambed Alteration Agreement.
- A toxic materials control and spill-response plan will be developed and implemented for the proposed project.
- Throughout project construction and implementation, hazardous materials will be stored at an approved storage facility located at least 30.5 m (100 ft) from any surface waters. Refueling and vehicle maintenance will be performed at least 30.5 m (100 ft) from receiving waters.
- Temporary orange construction barrier fencing (and sedimentation fencing in some cases) shall be installed around the construction areas.
- A Revegetation Planting and Erosion Control Specification Plan to compensate for the unavoidable loss of vegetation along Tennessee Creek will be prepared and implemented. The plan will focus on replanting or enhancing habitat along Tennessee Creek in the construction area. All native trees within 10 ft of the top of bank of Tennessee Creek will be replaced

within the riparian zone at a 2:1 ratio (2 trees planted for every 1 tree removed). Ten oaks will be planted for the five removed. An additional 20 willow pole cuttings will be planted in the areas covered with rock slope protection. The success criteria for trees is 60 percent establishment after five years, or 18 trees.

- A biological resources education program will be conducted for construction crews before project implementation. The education program will include a brief review of special-status species that may occur in the project area (including life history, habitat requirements, and pictures of the species), the portions of the project area in which they may occur, and their legal status. The program will also cover the restrictions and guidelines that must be followed by all construction personnel to reduce or avoid effects on these species during project implementation. The crew foreman will be responsible for ensuring that crew members adhere to the guidelines and restrictions. Education programs will be conducted for appropriate new personnel as they are brought on the job during the construction period. Restrictions and guidelines that must be followed by construction personnel are as follows:
  - Project-related vehicles shall observe that posted speed limit on hardsurfaced roads and a 16.1 km-per-hour (10 mi-per-hour) speed limit on unpaved roads during travel in the project area;
  - Project-related vehicles and construction equipment shall restrict off-road travel to the designated construction area;
  - Night time construction adjacent to Tennessee Creek shall be minimized to the extent possible;
  - All food-related trash shall be disposed of in closed containers and removed from the project area at least once each week during the construction period. Construction personnel shall not feed or otherwise attract wildlife to the project area;
  - No pets or firearms shall be allowed in the project area;
  - No rodenticides or herbicides shall be applied in the project area during construction activities;
  - To prevent possible resource damage from hazardous materials such as motor oil or gasoline, construction personnel shall not service vehicles or construction equipment outside of designated staging areas;
  - Any worker who inadvertently injures or kills a CRLF or finds one dead, injured, or entrapped, shall immediately stop construction activities and report the incident to the biological monitor. The monitor shall immediately notify El Dorado County, who will provide verbal notification to U.S. Fish and Wildlife Service's (USFWS) endangered species office in Sacramento, California, and to the local California Department of Fish and Game (CDFG) warden or biologist within 3 working days (it may not be practical to immediately halt some construction activities, such as the pouring of concrete. For these activities, more than 3 day may be required for notification so that the

activity can be safely completed). El Dorado County shall follow up with written notification to USFS and the CDFG within 5 working days.

- A preconstruction survey for CRLF shall occur within 48 hours prior to the start of construction activities within the riparian and aquatic habitat at Tennessee Creek. In the event that a CRLF is observed during the preconstruction survey, USFWS will be notified and the CRLF will be monitored until it leaves the project site. A qualified biologist will be present during grubbing and clearing activities in the riparian corridor. Grubbing and clearing of the brush and blackberry shrubs will be performed by hand or with hand tools. Mechanized vehicles will not be used to clear the brush. An exclusion fence will be installed to prevent the movement of frogs back into the construction area. If a CRLF is observed during construction activities in the creek, activities will cease and USFWS will be notified. Construction activities will not commence until the CRLF leaves the project site and an exclusion fence is installed to prevent the movement of frogs back into the construction area. Relocation of CRLF will only take place by an individual permitted by USFWS to handle this species.
- A County construction inspector shall be on site to monitor all construction occurring in water within Tennessee Creek for compliance with the project's mitigation measures. A USFWS approved qualified biologist will be available during the construction period. The County construction inspector will assist the construction personnel, as needed, to comply with all project implementation restrictions and guidelines. Furthermore, the County construction inspector will be responsible for ensuring that the contractor maintains the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive

#### Northwestern Pond Turtle (NWPT; *Clemmys marmorata marmorata*) Impacts

NWPT is a state species of concern. This species was not observed during biological surveys. No breeding habitat occurs on the project site because the steep banks are too shaded. Foraging habitat is present in the water of Hangtown Creek.

The following construction activities could impact NWPT if one were present.

- Operation of graders, trucks, and other equipment in Hangtown Creek.
- Removal of vegetation from the site.
- Installation of a temporary cofferdam.
- Removal of the existing bridge.
- Installation of new concrete abutments.
- Installation of rock slope protection for erosion control, If it is determined that RSP is necessary.
- Accidental spill of contaminants (e.g., gasoline, oil, etc.) into the creek.

Implementation of the following mitigation measures will ensure that potential impacts to NWPT are reduced to a less than significant level.

#### **Mitigation Measures 4.4.2.2**

- A preconstruction survey of the BSA will be conducted for NWPT immediately prior to initial construction activities. A qualified biologist will be present during grubbing and clearing activities in the riparian corridor to ensure that no NWPT are present. If an NWPT is observed in the construction area, construction shall stop within 100 ft of the animal. Construction will not commence until the biologist determines that the NWPT has left the construction zone.
- Environmentally Sensitive Areas (ESAs) will be established along the boundaries of the BSA to exclude construction activities from the riparian habitat that is not to be affected. Temporary exclusionary fencing will be installed to define the limits of the ESA. Signs will be placed on the exclusionary fencing that state "Environmentally Sensitive Area – Area Off Limits."
- Contract and bid specifications will require contractor to implement best management practices (BMPs) to prevent impacts to water quality in Hangtown Creek.
- Riparian vegetation will be avoided to the maximum extent practicable. California native tree species 5 inches dbh or greater that are removed will be replaced in the BSA.

Silver-haired Bat (*Lasionycteris noctivagans*) Yuma Myotis Bat (*Myotis yumanensis*) Impacts

These species are considered a local species of concern. Silver-haired and Yuma myotis bat were not observed in the project study area. No roosting habitat occurs in the BSA but it does provide potential foraging habitat. Construction occurring within BSA is not anticipated to impact the species as they would be foraging at night while no construction work would be occurring. Consequently, no mitigation would be required.

Migratory Bird and Birds of Prey Impacts

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). Migratory birds, including cliff swallow, barn swallow, and phoebe, nest on bridges and other man-made structures. The breeding season for these species occurs between 1 March and 31 August. Under the Migratory Bird Treaty Act, nests of migratory birds that contain eggs are not to be disturbed during the breeding season.

Construction is scheduled to occur between 15 April and 15 October, which is during the nesting season for swallows and other migratory birds, and raptors. The following mitigation measures will be implemented to reduce potential impacts to a level of less than significant:

Mitigation Measures 4.4.2.3

- Techniques to prevent nest establishment at the bridge include the following:
  - The contractor can visit the site weekly and remove partially completed nests using either hand tools or high pressure water; or

- Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until September of the year in which the bridge will be removed.
- A preconstruction survey for raptor and migratory bird nests will be conducted no more than two weeks prior to construction. If no raptor nests are found, then no additional avoidance and minimization measures are necessary.
- No trees that contain active bird nests protected by MBTA shall be disturbed until all eggs have hatched and young birds have fledged without prior consultation and approval of a DFG representative.

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

**Less Than Significant with Mitigation Incorporation.** Sensitive habitats include those that are of special concern to resource agencies and those that are protected under CEQA, the California Fish and Game Code, or the Clean Water Act. Sensitive habitats in the BSA include 2.689 acres of mixed oak woodland, 0.163 acre of riparian woodland, 0.079 acre of Tennessee Creek, and 0.027 acre of seasonal wetland. Impacts to Tennessee Creek and the seasonal wetland are discussed under questions c below.

Under Alternative A, seven native trees five inches diameter at breast height (dbh) or greater would be removed from the riparian corridor. Alternative C would remove seven native trees from the riparian corridor. Alternative E would result in the removal of five native trees 5 inches dbh or greater from the riparian corridor.

**Mitigation Measures 4.4.2.4**

- Replace removed trees within the riparian areas at a 2:1 ratio in the project study area.

c) *Would the project 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 wetlands, etc.), through direct removal, filling, hydrological interruption or other means?*

**Less Than Significant.** Tennessee Creek is a jurisdictional waters of the U.S. as defined by section 404 of the Clean Water Act (CWA). Approximately 0.106 acre of jurisdictional waters of the U.S. occurs in the project site (0.079 acre of Tennessee Creek and 0.027 acre of seasonal wetland).

Alternative E results in 0.015 ac of permanent fill and temporary disturbance of 0.076 ac below the OHWM of Tennessee Creek. The project will result in the permanent loss of 0.004 ac of seasonal wetland.

The impacts to wetlands and waters may be permitted under Section 404 Nationwide 23 permit, a Section 401 Water Quality Certification, and a DFG 1600 Streambed Alteration Agreement. These permits will be obtained prior to commencement of construction. The bid specifications and contract will specify that the contractor will comply with the terms and conditions outlined in the permits.

These permits require revegetation of the temporarily disturbed areas of the bed and bank of Tennessee Creek. Additionally, the planting of replacement trees in the riparian woodland (Mitigation 4.4.2.4) ensure that impacts to this resource are less than significant.

*d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

**Less Than Significant.** The BSA is surrounded by rural residential development. There are no known wildlife corridors or native wildlife nursery sites in the project area. The roadway modifications and bridge replacement are not expected to affect the existing movement of wildlife through or adjacent to the project area.

*e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

**Less Than Significant.** The El Dorado County Oak Woodland Management Plan governs the conservation of native oaks in the County. The Management Plan states that when oak canopy removal is necessary to complete County capital improvement projects, such projects are exempt from the canopy retention and replacement standards. This exemption applies to road widening and realignments which are necessary to increase capacity, to protect the public's health, and to improve the safe movement of people and goods in existing public road rights-of-way, as well as acquired rights-of-way necessary to complete the project.

The Plan does call for the County to minimize, where feasible, the impacts to oaks through the design process and right-of-way acquisition for such projects. The design of this project has used avoidance to the best extent feasible. Nevertheless, the preferred alternative would result in the removal of 51 protected oaks including 5 located within the riparian zone along Tennessee Creek.

As this project is a component of the capital improvement plan and is necessary to increase capacity, protect the health, and to improve the safe movement of people and goods in existing public road rights-of-way as well as acquired rights-of-way necessary to complete the project, the project meets the exemption criteria. Nevertheless, the project description includes replacement of the oak trees that will be removed due to construction of the project. Where feasible, replacement could occur within the BSA although replacement could occur outside the BSA as well.



Furthermore, the project does propose to mitigate for the oaks removed from the riparian areas along Tennessee Creek by planting replacement trees.

*f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?*

**Less Than Significant.** The project is consistent with the Oak Tree Management Plan as it meets the criteria for exemption from the plan because it consists of a capital improvement project necessary to increase capacity, protect the health, and to improve the safe movement of people and goods in existing public road rights-of-way as well as acquired rights-of-way necessary to complete the project. Additionally, the project proposes replacement of oaks impacted by the project, primarily within the vicinity of the project.



## 4.5. Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?			✓	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		✓		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				✓
d) Disturb any human remains, including those interred outside of formal cemeteries?			✓	

### 4.5.1. Environmental Setting

The project is located in the western portion of El Dorado County just east of the Sacramento County line. It is situated in the transition zone between the eastern edge of the Sacramento Valley and the rolling western foothills of the Sierra Nevada mountain range. The project area spans Tennessee Creek approximately 5 miles south of the South Fork of the American River, into which the creek eventually drains and approximately 12 miles north of the North Fork of the Cosumnes River.

The region surrounding the project area is underlain by Paleozoic and Mesozoic metamorphic rock with pockets of Mesozoic granites predominantly to the east. Important mineral bearing rocks, such as gold and platinum, are located where metamorphic rocks and granite contact (Schoenherr 1992). El Dorado County is rich with mineral bearing deposits that were mined extensively during the historic period.

The soils of the area, produced as a result of local geology and seismic activity, consist of the Auburn series (Figure 4). This series consists, typically, of a silty loam formed out of weathered schist. Auburn Silty Loams are shallow to moderately deep, and typically develop on mild to severe slopes in foothill environments. Generally, these soils have a low potential for containing flakable toolstone used for the production of projectile points preferred by local prehistoric and ethnographic groups. However, these soils may contain cobbles and stones brought down from the Sierras that could be used by those groups as cooking rocks and/or grinding stones. These soils encapsulate the entire project area and extend out into the surrounding region.

El Dorado County Department of Transportation prepared a history of the Old Coloma Road (Wurm, 2008) as part of the Green Valley and Lotus Roads improvements project at Dry Creek. The history includes maps, photographs, and family histories to illustrate the development of the original road, Lotus Road, and other early roads to Coloma that comprised Captain John Sutter's original road.

Cultural resources were evaluated in three reports. The first report is the Archeological Survey Report (ASR, Tremaine and Associates, 2008) which analyzes prehistoric resources. The second report is the Historical Resources Evaluation Report (HRER, Roland Nawi Associates, 2008) which analyzes the built environment including bridges, buildings, roads, and other structures. The third report is the Historic Properties Survey Report (HPSR, Tremaine and Associates, 2008) which summarizes the ASR and HRER. The HPSR reviews the results of previous studies in the area, summarizes the regional historical development, determines if historical resources are present in the project area, and provides a context for evaluating if these resources are eligible for listing in the National Register of Historic Places (NRHP). All three reports were reviewed and approved by Caltrans. Based on the reports, Caltrans concurred that no cultural resources eligible for listing on the NRHP occur in the project area. The reports are incorporated by reference into this Initial Study and can be reviewed at the El Dorado County Department of Transportation.

#### **4.5.2. Potential Environmental Effects**

a) *Would the project cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?*

**No Impact.** The ASR notes that two segments of the Old Coloma Road are located within the APE. The HRER further evaluates the two segments and determines that the road segments do not appear to be eligible for inclusion in the National Register, and are not historical resources for the purposes of the California Environmental Quality Act (CEQA).

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*

**Less Than Significant with Mitigation Incorporation.** There is a possibility that excavation activities could reveal buried historic and prehistoric artifacts that could not be observed during the cultural resources survey. The following mitigation measures will be implemented to reduce potential impacts to a level of less than significant:

##### **Mitigation Measures 4.5.2.1**

- The following note will be shown on all improvement plans and bid specifications:

If subsurface archaeological or historical remains (including, but not limited to, unusual amounts of bones, stones, or shells) are discovered during excavation or construction of the site, work within 100 feet of the discovery shall stop immediately and a qualified archaeologist and a representative of the Native American Heritage Commission shall be consulted to determine the significance of the find. The archeologist and the representative of the Native American Heritage Commission will develop a plan with specific measures to protect the find in a manner commensurate with the significance of the find. The plan shall be implemented before construction continues within 100 feet of the discovery.

*c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?*

**No Impact.** Paleontological resources in El Dorado County are associated with limestone cave deposits, occurrences of the Mehrten formation, and Pleistocene channel deposits (El Dorado County General Plan EIR Pages 2-69 and 2-70 of Volume 4a). Because these resources do not occur in the PSA, no impact will occur. The site does not contain any other unique geologic features.

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

**Less Than Significant.** The ASR documents that no known cemeteries or burials occur within the project study area. Should human remains be discovered during the excavation portion of the project, the project description includes contract provisions that will require notification of the El Dorado County DOT and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.94 et seq.

## 4.6. Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
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 or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				✓
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				✓
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓

### 4.6.1. Environmental Setting

#### Regional Geology

El Dorado County is located in the Sierra Nevada geomorphic province of California, east of the Great Valley province and west of the Range and Basin provinces. Steep-sided hills and narrow rocky stream channels characterize the Sierra Nevada province. This province consists of Pliocene and older deposits that have been uplifted as a result of plate tectonics, granitic intrusion, and volcanic activity. Subsequent glaciation and additional volcanic activity are factors that led to

the east-west orientation of stream channels. (El Dorado County General Plan Draft EIR, 2003.)

The southwestern foothills of El Dorado County are composed of rocks of the Mariposa Formation that include amphibolite, serpentine, and pyroxenite. The northwestern areas of the county consist of the Calaveras Formation, which includes metamorphic rock such as chert, slate, quartzite, and mica schist. In addition, limited serpentine formations are located in this area. The higher peaks in the County consist primarily of igneous and metamorphic rocks with granite intrusions, a main soil parent material at the higher elevations. (El Dorado County General Plan Draft EIR, 2003.)

### Seismicity

Seismicity is defined as the geographic and historical distribution of earthquake activity. Seismic activity may result in geologic and seismic hazards including seismically induced fault displacement and rupture, ground shaking, liquefaction, lateral spreading, landslides and avalanches, and structural hazards. Based on historical seismic activity and fault and seismic hazards mapping, El Dorado County is considered to have relatively low potential for seismic activity, and is located beyond the highly active fault zones of the coastal areas of California. The County's fault systems and associated seismic hazards are described below. (El Dorado County General Plan Draft EIR, 2003).

### Fault Systems

Earthquakes are associated with the fault systems in a particular area. The distribution of known faults in El Dorado County is concentrated in the western portion of the county, with several isolated faults in the central county area and the Lake Tahoe Basin. Fault systems mapped in western El Dorado County include the West Bear Mountains Fault; the East Bear Mountains Fault; the Maidu Fault Zone; the El Dorado Fault; the Melones Fault Zone of the Clark, Gillis Hill Fault; and the Calaveras–Shoo Fly Thrust. The PSA is located on the East Bear Mountains Fault. The section of East Bear Fault in the PSA is classified as a well-located Pre-Quaternary (inactive) fault. (El Dorado County General Plan Draft EIR, 2003.)

### Soils

Soils on the west slope of El Dorado County consist of well-drained silt and gravelly loams divided into two physiographic regions, the Lower and Middle Foothills and the Mountainous Uplands. There are a total of eight soil associations in western El Dorado County.

The Natural Resources Conservation Service (NRCS) has mapped four soil units in the project area. The soil units that occur onsite include: Placer Diggings, Auburn very rocky silt loam 2 to 30% slopes, Sobrante silt loam 3 to 15% slopes, and Auburn silt loam 2 to 3% slopes. (NRCS April 1974).

#### **4.6.2. Potential Environmental Effects**

a) *Would the project 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?*

**No Impact.** No earthquake fault zones are mapped in El Dorado County. Therefore, the project will not rupture a fault mapped on the most recent Alquist-Priolo Earthquake Fault Zoning Map. No impacts are anticipated.

ii) *Strong seismic ground shaking?*

**No impact.** The project is not in a seismic hazard zone (Natural Map Disclosure Notices, dated 5 June 1998; Counties Affected By Earthquake Fault Zone or Seismic Hazard Zones April 2006 prepared by the Division of Mines and Geology). No impacts are anticipated.

iii) *Seismic-related ground failure, including liquefaction?*

**No Impact.** Liquefaction is occurs in deposits of water-saturated alluvium or similar deposits of artificial fill. Soils in the PSA are not subject to liquefaction. No impacts are anticipated.

iv) *Landslides?*

**No Impact.** Slopes in the PSA are not high and steep enough to be subject landslides. No impacts are anticipated.

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

**Less Than Significant.** The project would require grading of approximately 3 acres. The project description states that the construction contract would stipulate that the contractor must construct the project in accordance with the County's Grading Ordinance and Storm Water Management Plan for Western El Dorado County. The contractor must prepare a construction-related Storm Water Pollution Prevention Plan (SWPPP), consistent with section 402 of the Clean Water Act and construction activities will include implementation of stormwater runoff best management practices (BMPs) identified with the SWPPP. Application of these requirements and measures would prevent substantial erosion or topsoil loss. Following construction, all disturbed areas not paved would be revegetated consistent with measures identified in the El Dorado County Erosion Control and Revegetation Plan to ensure the long-term stabilization.

c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

**No Impact.** Borings advanced on the project site reveal that the site is underlain with undifferentiated metamorphic and ultrabasic intrusive rocks (Taber December 2006). Soils in the PSA have a low shrink-swell potential and none are susceptible to landslide, lateral spreading, subsidence, liquefaction, or collapse (NRCS April 1974). No impacts are anticipated from unstable soil.

d) *Would the project 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?*

**No Impact.** Soils in the PSA have a low shrink-swell potential. Construction of the improvements would include the addition of aggregate base below the road surface that would reduce potential impacts from soil expansion and contraction. No impacts are anticipated.

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?*

**No Impact.** The proposed project is a surface transportation project, not a residential, commercial, or industrial development project. Neither septic tanks nor alternative wastewater disposal systems are part of the project.



#### 4.7. Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
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 within the vicinity of a private airstrip, 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?				✓

#### **4.7.1. Environmental Setting**

A material is considered hazardous if it appears on a list of hazardous materials prepared by a Federal, State, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as follows:

*A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed. (California Code of Regulations, Title 22, Section 66261.10)*

Chemical and physical properties cause a substance to be considered hazardous. Such properties include toxicity, ignitability, corrosivity, and reactivity. CCR, Title 22, Sections 66261.20-66261.24 define the aforementioned properties. The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies. Under Government Code Section 65962.5, the California Department of Toxic Substances Control (DTSC) maintains a list of hazardous substance sites. This list, referred to as the "Cortese List", includes CALSITE hazardous material sites, sites with leaking underground storage tanks, and landfills with evidence of groundwater contamination. In addition, the El Dorado County Environmental Management Department (EMD) maintains records of toxic or hazardous material incidents, and the Central Valley Regional Water Quality Control Board (RWQCB) keeps files on hazardous material sites.

Most hazardous materials regulation and enforcement in El Dorado County is overseen by the El Dorado County EMD, which refers large cases of hazardous materials contamination or violations to the RWQCB and the State Department of Toxic Substances Control (DTSC). Other agencies, such as the El Dorado County AQMD and the Federal and State Occupational Safety and Health Administrations (OSHA), may also be involved when issues related to hazardous materials arise.

Taber Consultants conducted an Initial Site Assessment (ISA) to identify the presence of hazardous substances or petroleum on the site under conditions that could significantly affect the feasibility or cost of the proposed project (Taber December 2006). The ISA found no direct evidence of hazardous substances or petroleum products on the site or the properties immediately adjacent to the project site (Taber December 2006). Information obtained during the study reveal a number of conditions that indicate some potential for hazardous materials that might affect the project and the ISA recommends limited additional study (Taber December 2006). The ISA notes that there is a potential for concentrations of aerially deposited lead along the road shoulders and recommends a limited program of soil sampling and analytical testing be conducted to determine the

significance of the concentrations (Taber December 2006). Due to potentially hazardous levels of lead chromate in yellow thermoplastic and yellow traffic stripes and pavement markings, the ISA recommends representative sampling of the yellow pavement markings to determine the appropriate disposal requirements in accordance with the Standard Special Provisions for the removal of yellow pavement markings (Taber December 2006). El Dorado County has identified testing for lead chromate concentrations as a special contract provision. The contract provision states that if lead chromate concentrations are equal to or exceed 1,000 mg per kg, then the yellow thermoplastic or yellow stripe or pavement markings will be disposed of at a Class 1 disposal facility or a Class 2 disposal facility if it is permitted by RWQCB for disposal of heavy metals.

The project site is located within the El Dorado County mapped (<http://www.co.el-dorado.ca.us/emd/apcd/PDF/Map.pdf>) natural occurring asbestos (NOA) area. NOA was found in one of five log borings at the site (Taber December 2006). The concentration of NOA where it was found on the site was less than one percent (Taber December 2006). A special contract provision includes the preparation of an Asbestos Management Plan pursuant to AQMD District Rule 231-2 for dust control during construction and grading operations.

#### **4.7.2. Potential Environmental Effects**

a) *Would the project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?*

**Less Than Significant.** Small amounts of hazardous materials would be used during construction activities (i.e., equipment maintenance, fuel, solvents, roadway resurfacing and re-striping materials). Hazardous materials would only be used during construction of the project, and any hazardous material uses would be required to comply with all applicable local, state and federal standards associated with the handling and storage of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less than significant impact.

The project site is located within the El Dorado County mapped (<http://www.co.el-dorado.ca.us/emd/apcd/PDF/Map.pdf>) natural occurring asbestos (NOA) area. NOA was found in one of five log borings at the site (Taber December 2006). The concentration of NOA where it was found on the site was less than one percent. Implementation of an Asbestos Dust Mitigation Plan prepared in accordance with AQMD District Rule 231-2 for dust control during construction and grading operations ensures that potential health hazards resulting from NOA dust will be less than significant.

Yellow pavement markings on the project site may have potentially hazardous levels of lead chromate. Disposal of the yellow pavement markings could result in a potentially significant impact if they were disposed of incorrectly. The special contract provision for the testing of lead chromate concentrations will ensure that

yellow thermoplastic and yellow striping and pavement markings are disposed of at the correct disposal facility. The special contract provision ensures a less than significant impact resulting from lead chromate.

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

**Less Than Significant.** The proposed project would result in a less than significant impact associated with the use and potential accidental release of hazardous materials during construction (see discussion at item "a", above).

c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?*

**No Impact.** Rescue Elementary School is located approximately 1.5 miles southwest of the project site. As noted above, the project would involve the short-term handling of hazardous materials during construction. Handling and storage of hazardous materials during construction would comply with all applicable local, state, and federal standards. The type and level of use is limited to length of construction and will not result in ongoing hazardous emissions. Long-term vehicle-related emissions are evaluated in the air quality discussion.

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

**No Impact.** No hazardous material listed sites occur in project area Taber December 2006).

e) *For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?*

**No Impact.** The project is not located in an Airport Land Use Plan area or in the vicinity of an airport. The nearest airport to the project area is the Cameron Park Airport located approximately 4 miles southwest of the project area.

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 in the vicinity of a private airstrip.

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

**Less Than Significant.** The proposed project would require lane closures to enable construction activities to proceed safely. The project does not require total road closure. Project construction activities would be coordinated with local law enforcement and emergency services providers. Because road closure is not required, construction would not significantly impact the circulation of emergency services through the construction site or evacuation in the event of a major emergency.

h) *Would the project 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?*

**No Impact.** Rescue, CA is not a federally listed or federally regulated Community at Risk of wildland fires (California Fire Alliance 2006). Because the project does not involve any land use changes and the project area is developed, project construction is not anticipated to result in a new or increased exposure of people or structures to a significant risk of loss, injury or death involving wildland fires.

## 4.8. Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?			✓	
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 the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			✓	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
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?			✓	
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) Inundation by seiche, tsunami, or mudflow?				✓

#### **4.8.1. 4.8.1 Environmental Setting**

The Proposed Project area is located in Rescue, El Dorado County. The project is located in the South Fork American hydrologic unit (hydrologic unit code 18020129). The majority of seasonal surface runoff is conveyed through the project site via roadside ditches. Bridge 25C-0038 and a portion of the approaches are mapped in the 100-floodplain (FEMA Flood Insurance Map Panel 0600400750E December 1996).

#### **4.8.2. 4.8.2 Potential Environmental Effects**

a) *Would the project violate any water quality standards or waste discharge requirements?*

**Less Than Significant.** The bridge replacement will not violate water quality or waste discharge requirements. Water quality objectives will be met through adherence to construction provisions, precautions, and stipulations as described in the National Pollution Discharge Elimination System (NPDES) permit, Section 404 CWA permit, Section 401 CQA Water Quality Certification, and 1600 Streambed Alteration Agreement. Coverage under the Statewide General Permit for Discharges of Storm Water Associated with Construction Activity, Order No. 99-08 DWQ will be obtained. In accordance with the provisions of the General Permit, the County will require the contractor to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) to reduce or minimize discharge of pollutants from construction activities.

b) *Would the project 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)?*

**No Impact.** The project would not involve any withdrawals from an aquifer or groundwater table.

c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?*

**Less Than Significant.** The project would not alter the course of Tennessee Creek or substantially alter drainage patterns on the project site. Tennessee Creek would retain its approximate function and capacity at the completion of the project. The banks of Tennessee Creek will be revegetated as necessary.

d) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or*



*substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?*

**Less Than Significant.** The project would not alter the course of Tennessee Creek or substantially alter drainage patterns within the project site that would cause flooding on- or off-site. Pursuant to federal regulations, the El Dorado County Department of Transportation will prepare a Floodplain Only Practicable Alternative Report for constructing in the 100-year floodplain of Tennessee Creek.

*e) Would the project 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.** The replacement of Bridge 25C-0038 would not provide additional sources of runoff compared with the existing bridge. The increase of impervious surface area resulting from improvements to the intersection of Green Valley Road and North Shingle Road is not expected to contribute to a substantial increase in water runoff from the site. Water quality during project construction will be protected by adherence to construction provisions, precautions, and stipulations as described in the NPDES, Section 404, Section 401, and 1601 Streambed Alteration Agreement permits.

*f) Would the project otherwise substantially degrade water quality?*

**No Impact.** No additional impacts other than those discussed under c) and e) above are anticipated.

*g) Would the project 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?*

**No Impact.** The Proposed Project is a roadway improvement project and no housing development is associated with the project.

*h) Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?*

**Less Than Significant.** See response to Question 8d.

*i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?*

**No Impact.** State Office Emergency Services dam inundation area maps (December 2003).

*j) Would the project be subject to inundation by seiche, tsunami or mudflow?*

**No Impact.** The Proposed Project is not in an area subject to seiche or tsunami.

## 4.9. Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				✓
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?				✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?			✓	

### 4.9.1. Environmental Setting

The applicable land use plan in the project area is the 2004 El Dorado County General Plan. The applicable transportation plan for the project is the Sacramento Metropolitan Transportation Plan 2027 (Sacramento Area Council of Governments July 2005).

### 4.9.2. Potential Environmental Effects

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

**No Impact.** The project involves modifications to an existing roadway and bridge. The project will not divide the community.

b) *Would the project 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 project would not conflict with any 2004 General Plan goals, policies or objectives intended to mitigate potential environmental impacts. The proposed project is identified as ELD16150 in the Sacramento Metropolitan Transportation Plan 2027 (Sacramento Area Council of Governments July 2005) and as project number 77109 of the 2007 Capital Improvement Program.

c) *Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?*

***Less Than Significant.*** The project is consistent with the Oak Tree Management Plan which exempts capital improvement projects which are necessary to increase capacity, or protect the health, or to improve the safe movement of people and goods in existing public road rights-of-way as well as acquired rights-of-way necessary to complete the project.

The El Dorado County General Plan requires the County to prepare an Integrated Natural Resources Management Plan (INRMP) that identifies important habitat in the County and establishes a program for effective habitat preservation and management. The Plan is still in process it is not anticipated to be adopted until after this project has been completed.

## 4.10. Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
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 plan?				✓

### 4.10.1. Environmental Setting

El Dorado County is considered a mining region capable of producing a wide variety of mineral resources. Metallic mineral deposits, gold in particular, are considered the most significant extractive mineral resources. No mineral extraction activities occur on or in the vicinity of the project site.

### 4.10.2. Potential Environmental Effects

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

**No Impact.** The project is not within or adjacent to any important mineral resource areas as identified by the State of California; therefore, the Proposed Project would not impact the availability of mineral resources that would be of value to the state.

b) *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

**No Impact.** The project is not within or adjacent to any important mineral resource areas as identified by El Dorado County (2004 El Dorado County General Plan Figure CO-1); therefore, the Proposed Project would not impact the availability of mineral resources that would be of value to the region.

## 4.11. Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
Would the project:				
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 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?				✓
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?				✓

### 4.11.1. Environmental Setting

The July 2004 El Dorado County General Plan Public Safety, Health and Noise Element established policies and standards for noise exposure at noise sensitive land uses. Policy 6.5.1.9 is the relevant policy and says:

“Noise created by new transportation noise sources, excluding airports but including roadway improvement projects, shall be mitigated so as not to exceed the levels as specified in [the following table].

Table 4-3. Maximum Allowable Noise Exposure For Transportation Noise Sources

<b>General Plan Table 6-1</b>			
<b>MAXIMUM ALLOWABLE NOISE EXPOSURE FOR TRANSPORTATION NOISE SOURCES</b>			
Land Use	Outdoor Activity Areas <sup>1</sup> L <sub>dn</sub> /CNEL, dB	Interior Spaces	
		L <sub>dn</sub> /CNEL, dB	L <sub>eq,2</sub> , dB
Residential	60 <sup>3</sup>	45	--
Transient Lodging	60 <sup>3</sup>	45	--
Hospitals, Nursing Homes	60 <sup>3</sup>	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls, Schools	60 <sup>3</sup>	--	40
Office Buildings	--	--	45
Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

An Environmental Noise Assessment was prepared for the project by Brown-Buntin & Associates, Inc. The Assessment concluded that the project is not expected to result in perceptible changes in traffic noise levels at the nearest houses when compared to the ambient noise levels, as the traffic noise level would no change by more than 1.7 dB in either configuration. Based on the guidelines contained in Table 1, the predicted increases in traffic noise levels associated with Alternative E would be less than significant.

County General Plan Policy 6.5.1.11 outlines standards for daytime construction and would apply to construction-related noise associated with the project. General Plan Policy 6.5.1.11 notes that nighttime construction activities are allowed if it can be shown that nighttime construction activities would alleviate traffic congestion and safety hazards. The significance of potential noise impacts associated with operation of transportation facilities is normally measured using General Plan Policy 6.5.1.12, which takes into account the existing (ambient) noise environment. However, because the project would not result in an increase of the number of vehicles passing through the roadway corridor, the ambient condition is not expected to change as a result of the project.

**4.11.2. Potential Environmental Effects**

a) *Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?*



### Construction-related Noise

**Less Than Significant.** Construction activities could increase noise levels temporarily in the vicinity of the project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. These increases would be temporary. Daytime construction activity would comply with noise standards for construction activities outlined in General Plan Policy 6.5.1.11, and any nighttime work would be allowed if nighttime construction activities would alleviate traffic congestion and safety hazards. Given that the project contractor would adhere to applicable County construction-related noise standards, this impact is considered less than significant.

### Traffic-related Noise

**Less than Significant.** Replacement of Bridge 25C-0038 will not generate increased traffic through the project area and would result in a shift in the location of through-traffic. The shift varies throughout the project area, but the maximum shift in any one location would be 40 feet to the east. The shift in vehicle location and the absence of increased traffic generation associated with the project is anticipated to result in less than significant traffic related noise.

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

**Less Than Significant.** Project construction includes activities, such as operation of large pieces of equipment (e.g., heavy trucks), which may result in the periodic, temporary generation of groundborne vibration. Because the project would not expand the roadway or change the way in which it is used, an increase in groundborne vibration associated with use of the road would not change from the current condition. Given the nature of any potential groundborne vibration and given that any impacts would be temporary and periodic, potential impacts are less than significant.

c) *Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

**Less Than Significant.** Because the project is not traffic-inducing or growth inducing and would not change the way in which the roadway is used, the Proposed Project would not contribute to a substantial permanent increase in the ambient noise level in the project vicinity.

d) *Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

**Less Than Significant.** Construction activities would increase noise levels temporarily in the vicinity of the project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, weather, time of day, and other factors. However, these increases would be temporary. Daytime construction activity would comply with noise standards for construction activities outlined in General Plan Policy 6.5.1.11, and any nighttime work would be allowed if nighttime construction activities would alleviate traffic congestion and safety hazards. Because the project contractor would be required to comply with applicable County construction-related noise standards, this impact is considered less than significant.

*e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

**Less Than Significant.** With the exception of temporary construction noise, discussed above, the Proposed Project would not result in a change in noise exposure for people residing or working within the project area.

*f) For a project located 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 project is not located within the vicinity of a private airstrip.

## 4.12. Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
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 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?				✓

### 4.12.1. Environmental Setting

The Project area consists of existing roadways, with surrounding medium density rural residential dwelling units.

### 4.12.2. Potential Environmental Effects

a) *Would the project 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 project will not induce population growth either directly or indirectly because the project does not involve road extensions or expansion of infrastructure.

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

**No Impact.** The project does not involve the displacement of any housing.

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

**No Impact.** The project does not involve the displacement of people.

### 4.13. Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				✓
Fire protection?				✓
Police protection?				✓
Schools?				✓
Parks?				✓
Other public facilities?				✓

#### 4.13.1. Environmental Setting

The El Dorado County Sheriff provides general public safety and law enforcement services. The Rescue Fire Protection District provides fire protection services and emergency services. The County maintains public facilities including the project area roadways.

#### 4.13.2. Potential Environmental Effects

*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 following public services:*

- a) *Fire protection?*
- b) *Police protection?*
- c) *Schools?*
- d) *Parks?*
- e) *Other public facilities?*

**No Impact.** Replacement of Bridge 25C-0038 would not increase human presence in the area requiring additional public facilities to provide adequate service identified in questions a - e.

#### 4.14. Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

##### 4.14.1. Environmental Setting

There are no recreation facilities within or adjacent to the proposed project area.

##### 4.14.2. Potential Environmental Effects

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

**No Impact.** The project would not increase the use of existing parks in the area and does not include the construction of any recreational facilities.

b) *Does the project include recreational facilities, or require the construction or expansion of existing facilities, which might have an adverse physical effect on the environment?*

**No Impact.** The project does not include the construction of any recreational facilities and would not require the expansion of existing recreational facilities.

#### 4.15. Transportation/Traffic

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				✓
b) Exceed, either individually or cumulatively, a level of service standard 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 a 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.g., farm equipment)?				✓
e) Result in inadequate emergency access?				✓
f) Result in inadequate parking capacity?				✓
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				✓

##### 4.15.1. Environmental Setting

Green Valley Road is considered a key county road carrying more than 1,000 peak hour trips (General Plan Draft EIR 2003). El Dorado County General Plan Policy TC-Xd states that the Level of Service (LOS) for County maintained roads in unincorporated areas of the county shall not be worse than LOS D in the Rural Center.

##### 4.15.2. Potential Environmental Effects

a) *Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?*

**No Impact.** Replacement of Bridge 25C-0038 would not change the amount of traffic on Green Valley or North Shingle roads because it is not a new development or growth inducing project.

b) *Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?*

**No Impact.** Bridge replacement would not change the amount of traffic on Green Valley or Shingle roads. The project will not decrease the roads' level of service (LOS) below E. LOS E is the minimum service level required.

c) *Would the project 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.** The Proposed Project would not result in a change in air traffic patterns or increase traffic levels that would result in a substantial safety risk. Therefore, no impacts on air traffic patterns would occur as a result of this project.

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

**No Impact.** The project includes features intended to improve safety of the existing roadway (e.g., realigning roadways to develop 90-degree intersections, improving turning radii). The project would not include design features such as sharp curves, dangerous intersections, or turning radii that would increase hazards. Because uses of the roadway and surrounding areas would not change, it would likewise not result in any use incompatibility.

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

**Less Than Significant.** The project contractor would be required to prepare a Traffic Management Plan for construction activities to ensure adequate access for emergency vehicles during project construction. Following construction, the project would result in improved safety and operation on Green Valley Road.

f) *Would the project result in inadequate parking capacity?*

**No Impact.** Parking along Green Valley Road, N Shingle Road and the other roadways within the project area is prohibited. The project would not result in an increase in demand for parking in the vicinity of the project.



*g) Would the project conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?*

*Less Than Significant.* According to the "El Dorado County Bicycle Transportation Plan, Jan 2005", Green Valley Road is a proposed Class II bike path. No other roads within the project limits are designated as a bike path ([www.edctc.org/bikeped\\_edc\\_plan.htm](http://www.edctc.org/bikeped_edc_plan.htm)).

The project is consistent with the 2005 El Dorado County Bicycle Transportation Plan by providing the adequate roadway on the Tennessee Creek bridge. Please refer to the County Bicycle Transportation Plan (January 2005) and Caltrans Highway Design Manual, Chapter 1000: Bikeway Planning and Design.

#### 4.16. Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
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 storm water 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 from existing entitlements and resources, or are new or expanded entitlements needed?				✓
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?				✓

##### 4.16.1. Environmental Setting

Utilities located within and adjacent to the project area include water and sewer services, electricity, cable, and telephone lines. El Dorado County maintains the storm drainage facilities.

##### 4.16.2. Potential Environmental Effects

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

**No Impact.** The Proposed Project would not produce additional wastewater; and therefore, the Proposed Project would not result in impacts to wastewater treatment facilities.

*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 project would not require the use of water beyond that already available in the area for emergency purposes. The project would have no impact on water or wastewater treatment facilities.

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

**No Impact.** Existing storm water drainage facilities are sufficient to serve the project.

*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 project would require no water service.

*e) Result in a determination by the wastewater treatment provider that 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 project would not produce wastewater.

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

**Less than Significant.** Solid waste generated by the project would be limited to construction debris, including asphalt and concrete, generated by the excavation of existing roadway and construction of the proposed improvements. Solid waste disposal would occur in accordance with federal, state and local regulations. Disposal would occur at permitted landfills. Therefore, the Proposed Project would not generate the need for new solid waste facility and the project's impacts would be considered less than significant.

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

***Less Than Significant.*** The Proposed Project would conform to all applicable state and federal solid waste regulations; therefore, the impact would be considered less than significant.

#### 4.17. Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant Impact	No Impact
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 will cause substantial adverse effects on human beings, either directly or indirectly?			✓	

*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 rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?*

**Less Than Significant.** As discussed throughout this checklist, the project is not expected to degrade the quality of the environment. Furthermore, the project is not expected to substantially reduce the habitat or affect populations of any fish or wildlife species (see Section 4.4) or eliminate important examples of the major period of California history or prehistory (see Section 4.5).

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

**Less than Significant.** The following sections discuss the potential for cumulative impacts associated with each resource checklist category in the preceding sections.

#### **Aesthetics**

The El Dorado County General Plan EIR (2003) discusses the cumulative effects on the visual resources along U.S 50; however, discussion of cumulative visual effects outside of the U.S. 50 corridor is not provided. Implementation of the Proposed Project is not expected to contribute to cumulative visual resource impacts associated with the replacement of the Tennessee Creek bridge, the incorporation of the left-turn median, and the signalization of the Green Valley Road at N. Shingle Road intersection. The roadway improvements follow existing roadways and would not substantially alter the existing visual character. The Proposed Project would not significantly alter the existing visual character of the project area, would not result in the removal of an identified scenic resource, and is not visible from a State scenic highway. Thus, a less than significant impact to aesthetics is anticipated under cumulative conditions.

#### **Agricultural Resources**

No agricultural resources are present within the project area or in the areas immediately surrounding or adjacent to the roadway. No Farmland is present within the project area, and the project would not result in conversion of farmland to a nonagricultural use. Therefore, the Proposed Project would not impact agricultural resources under cumulative conditions.

#### **Air Quality**

The project would result in temporary (construction-related) increases in PM<sub>10</sub>, NO<sub>x</sub>, and ROG. Project construction emissions were determined to be less than significant. This determination is based upon significance thresholds prescribed by the EDCAQMD and developed in recognition of the County's air quality (including its ozone and PM<sub>10</sub> non-attainment status). These criteria are considered applicable for consideration of project-related cumulative impacts. Based on the evaluation, the project would not result in cumulatively considerable long-term effects upon the region's air quality. The El Dorado County General Plan EIR (2003) discusses the cumulative effects on air quality due to planned development, which would result in increases in motor vehicle travel, wood fire stoves/fireplaces, and other sources that could contribute cumulatively to the significant impact on air quality in the region. Because the Proposed Project would not result in increases in motor vehicle travel or associated air pollutant emissions, the Proposed Project would not impact air quality under cumulative conditions.

#### **Biological Resources**

The El Dorado County General Plan EIR (2003) discusses the cumulative effects on biological resources due to planned development which has the potential to reduce populations of special-status species, such as rare plant communities and the California red-legged frog, that occupy oak woodland, chaparral, and riparian habitats. The potential for special-status species to occur within the project area is

low, therefore, this potential cumulative impact is less than significant. Implementation of the Mitigation Measures 4-1 to 4-4 would ensure a less than significant impact to biological resources. Since the project level impacts associated with biological resources would be reduced to less than significant, potential cumulative impacts to biological resources would be reduced to less than significant as well.

#### Cultural Resources

Implementation of the Proposed Project would not impact any known historical, archaeological, paleontological, or cultural resources in the project area. If previously undiscovered cultural resources are discovered during construction activities, the Proposed Project would comply with the provisions of the California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.94 et seq., regarding the discovery and disturbance of human remains should any human remains be discovered during project construction. The project level impacts to cultural resources associated with the Proposed Project are considered less than significant. Therefore, the project would not contribute to potential cumulative impacts associated with the destruction of undiscovered cultural resources.

#### Geology and Soils

The EI Dorado County General Plan EIR (2003) discusses the cumulative effects on geology and soils due to planned development as site-specific. No cumulative effects were identified in the General Plan EIR. Project-related impacts on geology and soils would be site-specific and implementation of the Proposed Project would not contribute to seismic hazards or water quality impacts associated with soil erosion. Cumulative water quality impacts associated with soil erosion by the Proposed Project would be less than significant through compliance with regulatory requirements including: the EI Dorado County Grading Ordinance, Storm Water Management Plan, Statewide General Permit for Small Municipalities, and Statewide General Permit for Construction Discharges (all requiring revegetation of disturbed areas, and implementation of BMP's for erosion control in accordance with Resource Conservation District recommendations, including storm drain outlet protection, overside drains, rip rap, lined ditch and vegetation practices). Therefore, the Proposed Project is anticipated to have a less than significant impact on cumulative geophysical conditions in the region.

#### Hazards and Hazardous Materials

The EI Dorado County General Plan EIR (2003) discusses the cumulative effects on human health and safety (which includes hazardous materials transportation safety, electromagnetic fields, naturally occurring asbestos, and wildland fire exposure) due to planned development as site-specific. The Proposed Project is not expected to result in any site-specific public health or hazard impacts. The project is expected to have no impact on cumulative hazard conditions.

#### Hydrology and Water Quality



The El Dorado County General Plan EIR (2003) discusses the cumulative effects on hydrology and water quality due to planned development. The Proposed Project would contribute to minimal increased storm drainage flows in the project area and would not negatively impact surface water quality. The project includes improvements to the drainage infrastructure, and adherence to the Statewide General Permit for Construction Discharges and the County's NPDES General Permit for Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems, would result in a less than significant impact to hydrology and water quality. The Proposed Project would not violate any water quality standard and would not increase the risk of flooding in the project area. Therefore, the project would not contribute to cumulative surface or groundwater impacts.

#### Land Use and Planning

The Proposed Project is the replacement of the Tennessee Creek bridge, the incorporation of the left-turn median, and the signalization of the Green Valley Road at N. Shingle Road intersection. No land use impacts were identified for this project; therefore the Proposed Project would not contribute to cumulative impacts associated with land use that were identified in the 2003 El Dorado County General Plan EIR. The Proposed Project is anticipated to have no impact on cumulative land use conditions in the region.

#### Mineral Resources

The El Dorado County General Plan EIR (2003) discusses the cumulative effects on mineral resources due to planned development as site-specific. The Proposed Project is not expected to result in any site-specific significant impacts to mineral resources. Additionally, the project is expected to have no impact on mineral resources under cumulative conditions.

#### Noise

The El Dorado County General Plan EIR (2003) discusses the cumulative effects on noise levels outside of the regional freeway and U.S. 50 corridors due to planned development as site-specific. Construction contractors will be required to conduct construction activities in compliance with the El Dorado County General Plan Noise Element. Due to compliance with these policies, the Proposed Project would have a less than significant cumulative impact to the project area.

#### Population and Housing

The Proposed Project is a roadway improvements project. The improvements are not capacity increasing and do not bring transportation facilities into areas not previously served by transportation facilities. The Proposed Project is anticipated to have no impact on cumulative population and housing conditions in the region.

#### Public Services

The project would not result in a significant effect on public services and is not expected to contribute to cumulative public service impacts.

#### Recreation

The project would not directly or cumulatively affect the use of parks or other recreation facilities.

#### Transportation/Traffic

The Proposed Project is the replacement of the Tennessee Creek bridge, the incorporation of the left-turn median, and the signalization of the Green Valley Road at N. Shingle Road intersection. The project is therefore expected to have a beneficial impact on cumulative traffic operations in the project area.

#### Utilities and Service Systems

Construction activities related to the Proposed Project may result in temporary impacts to utilities and service systems, including gas, electric, telephone, water and sewer facilities. The Proposed Project includes project commitments that require the County to coordinate with local utility providers early in the planning process to ensure that existing infrastructure in the project area is not damaged during construction activities, and that planned improvements to the underground utilities in the project area are coordinated with the roadway improvements. Additionally, adherence to the California Streets and Highways Code and the Public Utility Code would ensure that potential impacts are not cumulatively considerable.

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

**Less than Significant.** The project is intended to provide safety improvements to Green Valley Road within the project area and would result in beneficial effects. The project would not result in substantial direct or indirect adverse effects from noise, either during project operation or construction, nor would it result in impacts to air quality, water quality, or utilities and public services. Therefore, the project would have a less than significant impact on human beings.

## **5. SUPPORTING INFORMATION SOURCES**

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Department of Toxic Substance Control. Accessed 6 May 2008. EnviroStor search for El Dorado, Federal superfund sites (NPL), State response sites, voluntary cleanup sites, school cleanup sites, permitted sites, corrective action sites: [119.1357421875&y=37.82280243352756&zl=5&ms=640,480&mt=m&findaddress=True&city=RESCUE&zip=&county=EL%20DORADO&federal\\_superfund=true&state\\_response=true&voluntary\\_cleanup=true&school\\_cleanup=true&permit\\_site=true&ca\\_site=true&permit\\_and\\_ca\\_site=true](http://www.dtsc.ca.gov/EnviroStor/search.asp?y=37.82280243352756&zl=5&ms=640,480&mt=m&findaddress=True&city=RESCUE&zip=&county=EL%20DORADO&federal_superfund=true&state_response=true&voluntary_cleanup=true&school_cleanup=true&permit_site=true&ca_site=true&permit_and_ca_site=true)

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El Dorado County. El Dorado County Bicycle Transportation Plan. 2005.

El Dorado County. Proposed Five-Year Capital Improvement Plan. 2007.

El Dorado County General Plan Draft Environmental Impact Report (2003 and 2004)

Volume I - Comments on Draft Environmental Impact Report

Volume II - Response to Comment on DEIR

Volume III - Comments on Supplement to DEIR

Volume IV - Responses to Comments on Supplement to DEIR

Volume V - Appendices

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State of California Department of Conservation. Farmland Mapping and Monitoring Program. El Dorado County important farmland. El Dorado, CA. April 2007.

FEMA. Flood Insurance Rate Map Panel 0600400750E. September 2008.

Roland Nawi Associates: Preservation Consultants. Historic Resources Evaluation Report. Replacement of the Green Valley Road Bridge (25C-0038) at Tennessee Creek El Dorado County, CA. August 2008.

Sacramento Area Council of Governments. 2006 Metropolitan Transportation Plan for the SACOG Region Including the counties of Sacramento, Yolo, Yuba, Sutter, El Dorado and Placer. March 2006.

Sycamore Environmental Consultants, Inc. Visual Impact Assessment, Green Valley Road Bridge (25C-0038) Replacement At Tennessee Creek, March 2008.

Sycamore Environmental Consultants, Inc. Natural Environment Study and Jurisdictional Delineation Report Green Valley Road Bridge (25C-0038) at Tennessee Creek Replacement Project, El Dorado County, CA. April 2008.

Taber Consultants. Initial Site Assessment, Tennessee Creek Bridge replacement Project Green Valley Road and North Shingle Road, Placerville, California. December 2006.

Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act (Section 15000, et seq.)

Tremaine & Associates, Inc. An Archaeological Survey Report of the Replacement of the Green Valley Bridge (25C-0038) at Tennessee Creek, El Dorado County, California. July, 2008.

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Wurm, Bonnie D. The Old Coloma Road. A Cartographic and Photographic  
Presentation of the History of the people and places along the first road to  
the gold fields. May 2008.

Proposed Mitigation	Summary of Measures	Monitoring Responsibility	Timing	Verification (Date and Initials)
<b>4.1 Aesthetics</b>				
MM 4.1.2.1	<p>Impacts to the viewshed created by the retaining walls at the Green Valley/North Shingle roads intersection shall be given an aesthetic treatment. A "natural stone" look could be accomplished with the use of a rock gravity type wall or similar treatment.</p> <p>Alternatively, the County may acquire the necessary right-of-way or slope easements, so no retaining wall, would be necessary.</p>	El Dorado County Department of Transportation	Prior to any construction activities.	
<b>4.4 Biological Resources</b>				
MM 4.4.2.1	<ul style="list-style-type: none"> <li>• In-water construction activities will be from April 15 and October 15, subject to the Streambed Alteration Agreement.</li> <li>• In-water construction activities will be as permitted by the Streambed Alteration Agreement, generally restricted to the period between April 15 and October 15, or before the onset of the rainy season, whichever occurs first. The rainy season is defined as a frontal system that results in depositing 0.25 inch or more of precipitation during one event in the area.</li> <li>• A toxic materials control and spill-response plan will be developed and implemented for the proposed project.</li> <li>• Throughout project construction and implementation, hazardous materials will be stored at an approved storage facility located at least 30.5 m (100 ft) from any surface waters. Refueling and vehicle maintenance will be performed at least 30.5 m (100 ft) from receiving waters.</li> <li>• Temporary orange construction barrier fencing (and sedimentation fencing in some cases) shall be installed around the construction areas.</li> <li>• A Revegetation Planting and Erosion Control Specification Plan to compensate for the unavoidable loss of vegetation along Tennessee Creek will be prepared and implemented. The plan will focus on replanting or enhancing habitat along Tennessee Creek in the construction area. All native trees within 10 ft of the top of bank of Tennessee Creek will be replaced at a 2:1 ratio (2 trees planted for every 1 tree removed). Ten oaks will be planted for the five removed. An additional 20 willow pole cuttings will be planted in the areas covered with rock slope protection. The success criteria for trees in 60 percent establishment after five years, or 18 trees.</li> <li>• A biological resources education program will be conducted for construction crews before project implementation. The education program will include a brief review of special-status species that may occur in the</li> </ul>	El Dorado County Department of Transportation	Prior to any construction activities.	

	<p>project area (including life history, habitat requirements, and pictures of the species), the portions of the project area in which they may occur, and their legal status. The program will also cover the restrictions and guidelines that must be followed by all construction personnel to reduce or avoid effects on these species during project implantation. The crew foreman will be responsible for ensuring that crew members adhere to the guidelines and restrictions. Education programs will be conducted for appropriate new personnel as they are brought on the job during the construction period. Restrictions and guidelines that must be followed by construction personnel are as follows:</p> <ul style="list-style-type: none"> <li>o Project-related vehicles shall observe that posted speed limit on hardsurfaced roads and a 16.1 km-per-hour (10 mi-per-hour) speed limit on unpaved roads during travel in the project area;</li> <li>o Project-related vehicles and construction equipment shall restrict off-road travel to the designated construction area;</li> <li>o Night time construction adjacent to Tennessee Creek shall be minimized to the extent possible;</li> <li>o All food-related trash shall be disposed of in closed containers and removed from the project area at least once each week during the construction period. Construction personnel shall not feed or otherwise attract wildlife to the project area;</li> <li>o No pets or firearms shall be allowed in the project area;</li> <li>o No rodenticides or herbicides shall be applied in the project area during construction activities;</li> <li>o To prevent possible resource damage from hazardous materials such as motor oil or gasoline, construction personnel shall not service vehicles or construction equipment outside of designated staging areas;</li> <li>o Any worker who inadvertently injures or kills a CRLF or finds one dead, injured, or entrapped, shall immediately stop construction activities and report the incident to the biological monitor. The monitor shall immediately notify El Dorado County, who will provide verbal notification to U.S. Fish and Wildlife Service's (USFWS) endangered species office in Sacramento, California, and to the local California Department of Fish and Game (CDFG) warden or biologist within 3 working days (it may not be practical to immediately halt some construction activities, such as the pouring of concrete. For these activities, more than 3 day may be required for notification so that the activity can be safely completed). El Dorado County shall follow up with written notification to USFS and the CDFG within 5 working days.</li> <li>o A preconstruction survey for CRLF shall occur within 48 hours prior to the start of construction activities within the riparian and aquatic habitat at</li> </ul>			
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	<p>Tennessee Creek. In the event that a CRLF is observed during the preconstruction survey, USFWS will be notified and the CRLF will be monitored until it leaves the project site. A qualified biologist will be present during grubbing and clearing activities in the riparian corridor. Grubbing and clearing of the brush and blackberry shrubs will be performed by hand or with hand tools. Mechanized vehicles will not be used to clear the brush. An exclusion fence will be installed to prevent the movement of frogs back into the construction area. If a CRLF is observed during construction activities in the creek, activities will cease and USFWS will be notified. Construction activities will not commence until the CRLF leaves the project site and an exclusion fence is installed to prevent the movement of frogs back into the construction area. Relocation of CRLF will only take place by an individual permitted by USFWS to handle this species.</p> <ul style="list-style-type: none"> <li>• A County construction inspector shall be on site to monitor all construction occurring in water within Tennessee Creek for compliance with the project's mitigation measures. A USFWS approved qualified biologist will be available during the construction period. The County construction inspector will assist the construction personnel, as needed, to comply with all project implementation restrictions and guidelines. Furthermore, the County construction inspector will be responsible for ensuring that the contractor maintains the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive</li> </ul>			
<p><b>MM 4.4.2.2</b></p>	<ul style="list-style-type: none"> <li>• A preconstruction survey of the BSA will be conducted for NWPT immediately prior to initial construction activities. A qualified biologist will be present during grubbing and clearing activities in the riparian corridor to ensure that no NWPT are present. If an NWPT is observed in the construction area, construction shall stop within 100 ft of the animal. Construction will not commence until the biologist determines that the NWPT has left the construction zone.</li> <li>• Environmentally Sensitive Areas (ESAs) will be established along the boundaries of the BSA to exclude construction activities from the riparian habitat that is not to be affected. Temporary exclusionary fencing will be installed to define the limits of the ESA. Signs will be placed on the exclusionary fencing that state "Environmentally Sensitive Area – Area Off Limits."</li> <li>• Contract and bid specifications will require contractor to implement best management practices (BMPs) to prevent impacts to water quality in Hangtown Creek.</li> <li>• Riparian vegetation will be avoided to the maximum extent practicable. California native tree species 5 inches dbh or greater that are removed will</li> </ul>	<p>El Dorado County Department of Transportation</p>	<p>Prior to any construction activities.</p>	

	be replaced in the BSA.			
MM 4.4.2.3	<ul style="list-style-type: none"> <li>• Techniques to prevent nest establishment at the bridge include the following:                             <ul style="list-style-type: none"> <li>○ The contractor can visit the site weekly and remove partially completed nests using either hand tools or high pressure water; or</li> <li>○ Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until September of the year in which the bridge will be removed.</li> </ul> </li> <li>• A preconstruction survey for raptor and migratory bird nests will be conducted no more than two weeks prior to construction. If no raptor nests are found, then no additional avoidance and minimization measures are necessary.</li> <li>• No trees that contain active bird nests protected by MBTA shall be disturbed until all eggs have hatched and young birds have fledged without prior consultation and approval of a DFG representative.</li> </ul>	El Dorado County Department of Transportation	Prior to any construction activities.	
MM 4.4.2.4	Replace removed trees within the riparian areas at a 2:1 ratio in the project study area.	El Dorado County Department of Transportation	Prior to any construction activities.	
<b>4.5 Cultural Resources</b>				
MM 4.5.2.1	<p>The following note will be shown on all improvement plans and bid specifications:</p> <p>"If subsurface archaeological or historical remains (including, but not limited to, unusual amounts of bones, stones, or shells) are discovered during excavation or construction of the site, work within 100 feet of the discovery shall stop immediately and a qualified archaeologist and a representative of the Native American Heritage Commission shall be consulted to determine the significance of the find. The archeologist and the representative of the Native American Heritage Commission will develop a plan with specific measures to protect the find in a manner commensurate with the significance of the find. The plan shall be implemented before construction continues within 100 feet of the discovery."</p>	El Dorado County Department of Transportation	Prior to any construction activities.	