FINAL INITIAL STUDY
MITIGATED NEGATIVE DECLARATION

TULARE COUNTY RESOURCE MANAGEMENT AGENCY
Outside Creek Bridge Replacement Project
(SCH #2012121050)

November 2012

Quad Knopf

Final Initial Study/Mitigated Negative Declaration
Outside Creek Bridge Replacement Project

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November 2012

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SECTION ONE

INTRODUCTION

SECTION ONE – INTRODUCTION

1.1 CEQA Requirements

This document is the Initial Study/Mitigated Negative Declaration on the environmental effects of the proposed widening of Outside Creek Bridge within Tulare County, California. The Tulare County Resource Management Agency (RMA) will act as the Lead Agency for this project pursuant to the *California Environmental Quality Act (CEQA)* and the *CEQA Guidelines.*

Section 15063 of the CEQA Guidelines requires the Lead Agency to prepare an Initial Study to determine whether a discretionary project will have a significant effect on the environment. The purposes of an Initial Study, as listed under Section 15063[c] of the CEQA Guidelines, include:

(1) Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR [Environmental Impact Report] or a Negative Declaration.

(2) Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration.

(3) Assist in the preparation of an EIR, if one is required, by:

- *(A) Focusing the EIR on the effects determined to be significant,*
- *(B) Identifying the effects determined not to be significant,*
- *(C) Explaining the reasons for determining that potentially significant effects would not be significant, and*
- *(D) Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.*

(4) Facilitate environmental assessment early in the design of a project;

(5) Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;

(6) Eliminate unnecessary EIRs;

(7) Determine whether a previously prepared EIR could be used with the project.

This Initial Study/Mitigated Negative Declaration has been prepared in response to the requirements presented above. The proposed project consists of the replacement of timber bridge 46C-0186 with a box culvert over Outside Creek on Road 148. The project will require the removal of the existing 45-feet long by 20.5-feet wide bridge and its piles and abutments, and replacement with a structure up to 35-feet wide and 45-feet long. The project will meet the Federal Highway Administration (FHWA) guidelines for bridge railings, and all other state and federal bridge construction standards. The bridge replacement project will be funded through the federal Highway Bridge Program.

Pursuant to Section 15003 of the CEQA Guidelines, Tulare County RMA has prepared this Initial Study to determine whether the Project will have a significant effect on the environment. The Initial Study Checklist in Section Three found that while there is the potential for the project to have significant environmental impacts, these impacts will be mitigated to a less than significant level. Based on this Initial Study, it has been determined that a Mitigated Negative Declaration should be prepared.

1.2 Intended Uses of the Mitigated Negative Declaration

This Mitigated Negative Declaration is an informational document that is intended to inform decision-makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed project. The environmental review process has been established to enable public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, Tulare County RMA must balance any potential environmental effects against other public objectives, including economic and social goals.

Tulare County RMA, as the Lead Agency, has determined, based on the Initial Study, that the environmental review for the proposed application can be completed with a Mitigated Negative Declaration. This report, together with a Notice of Intent to Adopt a Negative Declaration, will be circulated and published for a period of 30 days for public and agency review. Responsible agencies that may have discretionary approval authority over the project and trustee agencies having jurisdiction over natural resources affected by the project will have the opportunity to review and provide comments during the review period. Other agencies and the public may also contribute comments.

The written and oral comments received during the public review period will be considered by Tulare County RMA prior to adopting the Mitigated Negative Declaration as noted in the Notice of Intent.

1.3 Document Organization and Contents

The Mitigated Negative Declaration is organized as follows:

Section I. Introduction presents an introduction to the entire report. This section identifies contact persons involved in the process, scope of environmental review and environmental procedures.

Section II. Project Description describes the proposed project and project design features.

Section III. Environmental Evaluation contains the environmental checklist and Initial Study form. The checklist form presents results of the environmental evaluation for the proposed project and those issue areas that would either have a potentially significant impact, a less than significant impact, or no impact.

Section IV. Mitigation Monitoring Plan

Section V. Persons and Documents Consulted

Section VI. List of Preparers

SECTION TWO

PROJECT DESCRIPTION

SECTION TWO – PROJECT DESCRIPTION

2.1 Project Location

This document is an Initial Study and Mitigated Negative Declaration of the potential environmental effects of a bridge replacement project over Outside Creek on Road 148 in Tulare County, California (Figure 2-1). This bridge is located approximately three miles east of the City of Tulare, on Road 148, south of Avenue 224 (Figure 2-2).

2.2 Project Description

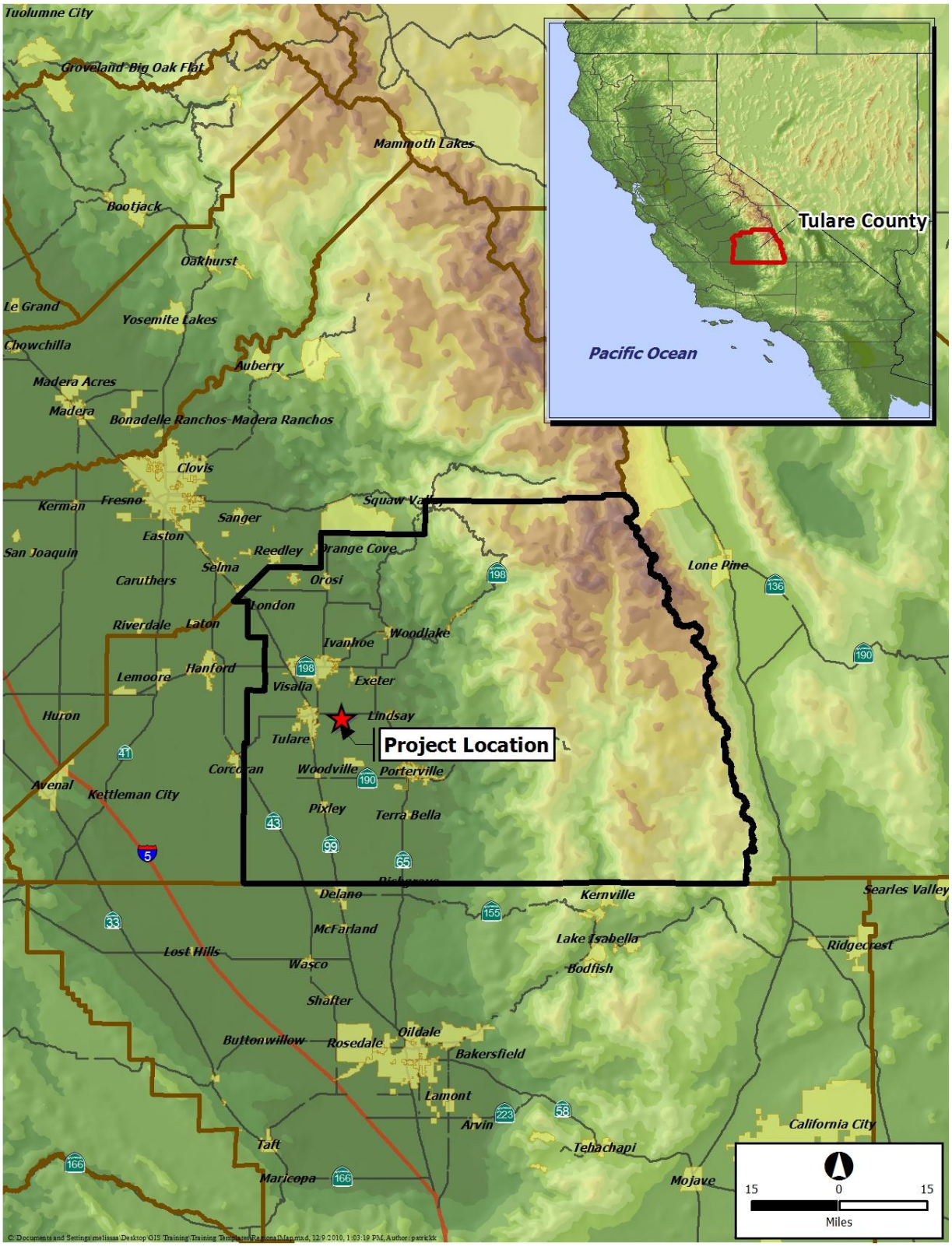
The County of Tulare plans to replace an existing, paved, two-lane bridge located on Road 148, crossing Outside Creek (Bridge No. 46C-0186) which has a current sufficiency rating of 56.5 out of 100. The existing bridge is a 45 feet long and 20.5 feet wide, 3-span, treated DF timber bridge. Because of the narrow roadway width the bridge is functionally obsolete. Because the bridge is constructed of timber, Caltrans does not recommend widening of the existing structure. The bridge will be removed and replaced with a box culvert which will be up to 35-feet wide and 36-feet long (pending final design). The project will include 15 – 25 feet of concrete channel lining and up to 10 feet of rock slope protection. Wingwalls of approximately 15-feet long that conform to the existing channel banks are also proposed as part of the bridge design. Railing will meet crash test requirements. The bridge will conform to the existing approach road width of 20 feet. It will not include additional travel lanes. The most economical alternative for continued access during construction is a temporary (90 day) road closure and a traffic detour to either side of the bridge. The roadway approaches to the north and south of the bridge may be offset 11 feet from the centerline to the east in order to line up correctly with the bridge.

The contractor would likely use either an area to the northeast of the bridge or an area southwest of the bridge as staging areas. Both options are included in the environmental evaluation. The staging area will be needed for the duration of construction activities to store equipment and materials and to provide parking areas for construction workers and equipment. The temporary staging area would be reclaimed to conditions equivalent to existing conditions after project construction has been completed. The county may offset the roadway alignment within the right of way, and will improve the Road 148 northern approach to the intersection with Avenue 224, and the southern approach up to 500 feet from the bridge.

Construction of the bridge is expected to begin in mid-September 2013 and be completed by mid-December. The bridge will not include additional travel lanes. A detour will be required to access areas south of the bridge. The most direct route will be from Bardsley Avenue, travel south on Road 140, east on Avenue 220 (Hansen Road) and north on Road 148.

The area surrounding the proposed project is rural in nature, and is zoned for agricultural or other rural use. Land to the southeast supports orchards. Land to the north is zoned for agricultural use, and is either in production or fallow. The maximum flow beneath Outside Creek does not usually exceed 600 cubic feet per second (J. Silva, Consolidated Peoples Ditch). Outside Creek is controlled by releases from Lake Kaweah, with flows during the summer for irrigation

purposes. In this part of the County, Road 148 is used primarily by land owners and those engaged in the production of fruit and other crops. Because large farm equipment is used in the area, the existing, narrow bridge rails continue to be damaged when tractors and other equipment cross the bridge.



Quad Knopf	REGIONAL MAP	Figure 2 - 1

Quad Knopf	VICINITY MAP	Figure 2-2

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AREA OF POTENTIAL EFFECT

Figure 2-3

SECTION THREE

EVALUATION OF ENVIRONMENTAL IMPACTS

SECTION THREE – EVALUATION OF ENVIRONMENTAL IMPACTS

Environmental Checklist and Discussion

1. Project title:
   Outside Creek Bridge Replacement

2. Lead agency name and address:
   Tulare County, Resource Management Agency
   5961 S. Mooney Boulevard
   Visalia, California 93227-9374

3. Contact person and phone number:
   Hector Guerra, Chief Environmental Planner
   (559) 624-7121

4. Project location: The project is located in Tulare County, California, approximately three miles east of the City of Tulare on Road 148, south of the intersection with Avenue 224 (a.k.a. Bardsley Avenue).

5. Project sponsor's name and address:
   Tulare County, Resource Management Agency
   5961 S. Mooney Boulevard
   Visalia, California 93227-9374

6. General plan designation: Not applicable. Tulare County Right-of-Way.

7. Zoning: Not applicable. Tulare County Right-of-Way.

8. Description of project: See Section Two Project Description

9. Surrounding land uses and setting: The project area is a bridge on a rural roadway in Tulare County, in an area utilized for agricultural production. Surrounding land is privately owned and consists of farmland.

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

   - State of California Native American Heritage Commission
   - State of California Department of Fish and Wildlife
   - California State Clearinghouse
   - U.S. Army Corps of Engineers
   - State of California Department of Transportation (Caltrans)
   - San Joaquin Valley Air Pollution Control District
   - Central Valley Regional Water Quality Control Board

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

☐ Aesthetics	☐ Agriculture Resources and Forest Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Geology /Soils
☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials	☒ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☒ Transportation/ Traffic	☒ Utilities / Service Systems	☐ Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

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

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

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

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

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

Hector Guerra, Chief Environmental Planner — Date
Quad Knopf, Inc.

Environmental Checklist and Discussion

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.1 AESTHETICS				
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Response

Scenic Vistas (a): The County of Tulare General Plan does not identify any scenic vistas within the project area. The proposed project would allow for the demolition and reconstruction of an existing bridge. The visual characteristics of the project site and the surrounding areas include agricultural uses, with the Sierra Nevada Mountain Range in the distance. A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. The project site itself does not provide any visual resources that would be considered a scenic vista, because it primarily consists of the existing bridge structure that is relatively common in other areas of the County of Tulare and is not unique to the surrounding visual setting. Neither the project area nor any surrounding land use contains features typically associated with scenic vistas (e.g., ridgelines, peaks, overlooks). Therefore, little opportunity exists for project activities to obscure views of scenic vistas.

Conclusion: The project would cause ***no impact*** to scenic vistas.

Mitigation Measures: None are required.

Scenic Resources and Visual Character (b, c): The project site is within a rural area of the County. Outside Creek, an irrigation creek with regulated waters, flows beneath the bridge. The construction easement northeast of the bridge would provide a staging area necessary for

storing equipment and materials, and parking for construction workers and equipment. The staging area would be restored to conditions equivalent to its existing condition (e.g., developed/disturbed land with minimal vegetation) after project construction has been completed. These areas include no scenic resources. Other than the temporary disturbances during the project, no areas surrounding the bridge will be affected by the project.

The lumber bridge, guardrails and wooden piles will be replaced with a concrete bridge structure, piles, wingwalls and abutments. Guardrails will be "flexible" and constructed of materials in accordance with recommendations in the "Roadside Design Guide." Although the existing wooden bridge may have been considered to have visual character when originally installed, it is in need of paint and repair where weather and farm equipment have damaged the guardrails. The newly installed bridge may change, but will not degrade, the visual character of the bridge.

Vegetation along the creek banks consists of non-native grasses and weedy growth during the wetter months of the year. No riparian trees or shrubs are within the project site or the vicinity.

There are no state designated scenic highways within the immediate proximity to the project site. California Department of Transportation Scenic Highway Mapping System identifies two highways in Tulare County as Eligible State Scenic Highways. State Route 198 is approximately 10 miles to the north of the project site, while State Route 190 is approximately 12 miles east project site. Based on the County General Plan, no historic buildings exist on the project site. The project will not cause a potentially significant impact to scenic resources.

Conclusion: The project would have ***a less than significant impact*** to scenic resources or to the existing visual character of the site.

Mitigation Measures: None are required.

Creation of light or glare (d): There are no street lights in the vicinity of the project. Existing nighttime lighting on the bridge consists of traffic that may be traveling along Road 148 over the Outside Creek Bridge. As described in Chapter Two - Project Description, a temporary traffic detour will be required during bridge construction. Traffic trips that normally occur on Road 148 will be re-routed as described in the Project Description, thus creating a potential increase in nighttime lighting (headlights) from vehicles traveling through the detour routes. While existing residents along the detour routes may notice a slight change in nighttime vehicular activity, the increase in traffic trips will be temporary (90 days) and will not be significantly more than existing conditions. The project itself does not include lighting. The concrete bridge materials are not a source of glare. Accordingly, the project will not create a new source of light or glare that would adversely affect day or nighttime views in the area.

Conclusion: There is ***no impact***.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
3.2 AGRICULTURE AND FOREST RESOURCES In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department 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) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12229(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by GC section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Response:

Farmland Conversion (a, e): The project site is located in an area of the County considered as rural land, and is designated as Prime Farmland (California Division of Land Resource Protection, 2010). The project will occur only within the right-of-way on Road 148. The temporary staging area will be confined to the previously disturbed area east of Road 148 and west of Outside Creek where no agricultural activities occur. Land adjacent to the project site will not be impacted by the project. No Farmland conversion will occur as a result of the project.

Conclusion: There is ***no impact***.

Mitigation Measures: None are required.

Zoning Conflicts (b, c): The project site is located within the Tulare County right of way and has no zoning designation. The project site is not under a Williamson Act contract. Accordingly, there will be no conflicts with agricultural zoning or Williamson Act contracts.

Conclusion: There are ***no impacts***.

Forest Land Conversion or Loss (c, d): The project site is located within the Tulare County right of way and has no zoning designation. The project does not propose any zone changes related to forest or timberland. No conversion of forestland, as defined under Public Resource Code or General Code, as referenced above, will occur as a result of the Project. The project will not result in the loss of forestland.

Mitigation Measures. None are required.

Conclusion: The project will have ***no impact*** to forestland.

3.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management of 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 or hazardous emissions?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Response

This environmental issue focuses on the project's air quality impacts. Issues over project consistency with applicable air quality plans, policies and regulations, increases of any pollutant for which the area has been designated as a "non-attainment" area are to be addressed. Additional concerns are over the exposure of sensitive receptors, such as nearby residents, to increased levels of air pollution or odors.

Air Quality Attainment Plan Consistency (a): The San Joaquin Air Basin (SJVAB) is designated nonattainment of state and federal health based air quality standards for ozone

and PM2.5. The SJVAB is designated nonattainment of state PM_{10}. To meet Federal Clean Air Act (CAA) requirements, the San Joaquin Air Pollution Control District (SJVAPCD) has multiple air quality attainment plan (AQAP) documents, including:

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM_{10} Maintenance Plan and Request for Redesignation; and
- 2008 $PM_{2.5}$ Plan.

Because of the region's non-attainment status for ozone, $PM_{2.5}$, and PM_{10}, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NO_x), PM_{10}, or $PM_{2.5}$ were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

As discussed in Impact b), below, predicted construction and operational emissions would not exceed the SJVAPCD's significance thresholds for ROG, NO_x, PM_{10}, and $PM_{2.5}$. As a result, the project would not conflict with emissions inventories contained in regional air quality attainment plans, and would not result in a significant contribution to the region's air quality non-attainment status. In addition, the project would not result in a change of land use or an increase of unaccounted regional emission inventory vehicle miles traveled. Additionally, the project would comply with all applicable rules and regulations. Therefore, this impact is less than significant.

Conclusion: This impact is ***less than significant.***

Mitigation Measures: None are required.

Air Quality Standards/Violations (b): Because ozone is a regional pollutant (SJVAPCD 2002), the pollutants of concern for localized impacts are CO and fugitive PM_{10} dust from construction. Ozone and total PM_{10} (exhaust and fugitive) impacts are addressed under Impact c), below. The proposed project would not result in localized CO hotspots or PM_{10} impacts, as discussed below. Therefore, the proposed project would not violate an air quality standard or contribute to a violation of an air quality standard in the project area.

LOCALIZED PM_{10}

Localized PM_{10} would be generated by project construction activities, which would include earth-disturbing activities. The SJVAPCD indicates that all control measures in Regulation VIII are required for all construction sites by regulation. The SJVAPCD's GAMAQI

(SJVAPCD 2002) lists additional measures that may be required of very large projects or projects close to sensitive receptors. If all appropriate "enhanced control measures" in the GAMAQI are not implemented for very large projects or those close to sensitive receptors, then construction impacts would be considered significant (unless the Lead Agency provides a satisfactory detailed explanation as to why a specific measure is unnecessary). The GAMAQI also lists additional control measures (Optional Measures) that may be implemented if further emission reductions are deemed necessary by the Lead Agency. The SJVAPCD's Regulation VIII (Fugitive PM_{10} Prohibitions) has been updated and expanded since the GAMAQI guidance was written in 2002. Regulation VIII now includes the "enhanced control measures" contained in the GAMAQI.

The proposed project would comply with the SJVAPCD's Regulation VIII dust control requirements during construction and demolition (including Rules 8011 [Regulation VIII regarding fugitive dust emissions], 8031, 8041, and 8071). Compliance with this regulation would reduce the potential for significant localized PM_{10} impacts to less than significant levels.

CO HOTSPOT

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of roadways in the project vicinity.

The existing bridge is structurally deficient and is being constructed to address safety concerns. There is no existing LOS for Road 148 because it is located in an area of low traffic. As stated previously, the Outside Creek Bridge is primarily used by those engaged in agricultural production or nearby landowners. The Project will not expand the capacity of the bridge and will not add additional traffic to the roadway. Because of the low use of this roadway and rural setting, CO emissions are expected to be low and dispersed rapidly. Accordingly, the project would not significantly contribute to an exceedance that would exceed state or federal CO standards.

Conclusion: This impact is ***less than significant impact***.

Mitigation Measures: None are required.

Non-attainment Cumulatively Considerable Net Increase of Criteria Pollutants (c): The nonattainment pollutants for the SJVAPCD are ozone, PM_{10} and $PM_{2.5}$. Therefore, the pollutants of concern for this impact are ozone precursors, regional PM_{10}, and $PM_{2.5}$. Ozone is a regional pollutant formed by chemical reaction in the atmosphere, and the project's incremental increase in ozone precursor generation is used to determine the potential air quality impacts, as set forth in the GAMAQI.

The SJVAPCD does not have a threshold for regional PM_{10} or $PM_{2.5}$. This document proposes a PM_{10} threshold using the same basis as the ozone precursor thresholds. Since the

GAMAQI was published, the SJVAPCD has been recommending use of a PM_{10} threshold of 15 tons per year. for the SJVAPCD also recommends a $PM_{2.5}$ threshold of 15 tons per year.

The annual significance thresholds to be used for the project for operational and construction emissions are as follows:

- 10 tons per year ROG;
- 10 tons per year NO_x;
- 15 tons per year PM_{10}; and
- 15 tons per year $PM_{2.5}$.

The project involves the demolition and construction of a replacement bridge. Approximately 180 days of construction are anticipated. The Sacramento Metropolitan Air Quality Management District's Road Construction model was used to estimate emissions from the infrastructure improvements (Appendix A). (Note that this model was used because no comparable model has been issued by the SJVAPCD, however the SJVAPCD approves of the model's usage for linear construction project.). The Roadway Construction Emissions Model is a Microsoft Excel worksheet available to assess the emissions of linear construction projects. The estimated annual construction emissions are shown below. If construction were to occur in a later years, the construction emissions would be less than the 2011 estimates, as regulatory measures come into effect that require cleaner construction equipment.

Table 3.3-1
Construction Emissions (2012)

	Emissions (tons)					
	ROG	**NOx**	**PM10**	**PM2.5**	**CO_2**	**$MTCO_2$**
Bridge Replacement	0.1	1.0	0.1	0.0	110.2	100
Roadway Approaches	0.1	0.9	0.1	0.1	101.7	92
Total	0.2	1.9	0.2	0.1	211.9	192
SJVAPCD Threshold	10	10	15	15	N/A	N/A
Significant?	No	No	No	No	No	No

Note: MTCO2 = Metric Tons CO2 (English tons x 0.9072)
Source: Sacramento Metropolitan Road Construction Model, Version 6.3.2

The project's construction emissions would not exceed the SJVAPCD's thresholds for ozone precursors or PM_{10} or $PM_{2.5}$. Section 4.3.2 of the SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) provides that any proposed project that would individually have a significant air quality impact (i.e., exceed significance thresholds for ROG, NO_x, PM_{10}, or $PM_{2.5}$) would also be considered to have a significant cumulative impact. Although the GAMAQI does not provide guidance for evaluating cumulative air quality impacts in instances where project-specific emissions of criteria pollutants do not exceed the Air District's significance thresholds, it does state: "[a]ll but the largest individual sources emit ROG and NOx in amounts too small to have a measurable effect on ambient ozone concentrations by themselves." Because the project would not exceed the

project-level thresholds of significance, the project would not to result in a cumulatively considerable air quality impact.

Conclusion: This impact is ***less than significant.***

Mitigation Measures: None are required.

Expose sensitive receptors to substantial pollutant concentrations (d): The proposed project would not expose sensitive receptors to substantial concentrations of localized PM_{10}, carbon monoxide, diesel particulate matter, or hazardous pollutants, naturally occurring asbestos, or valley fever, as discussed below.

LOCALIZED PM_{10}

As shown in Impact b), above, the project would not generate a significant impact for construction-generated, localized PM_{10}. Therefore, the project would not expose sensitive receptors to unhealthy levels of PM_{10}.

CARBON MONOXIDE HOTSPOT

As shown in Impact b), above, the project would not generate a CO hotspot. Background concentrations of CO are so low that the California Air Resources Board and the San Joaquin Valley Air Pollution Control District no longer monitor CO in Tulare County. The nearest CO monitoring location is the Drummond Avenue monitoring station located 51 miles northwest of the project site in Fresno, California. This station shows the highest 8-hour CO concentration for the past three years was 1.95 ppm. . The 8-hour CO standard is 9 ppm.

DIESEL PARTICULATE MATTER

Construction equipment generates diesel particulate matter (DPM), identified as a carcinogen by the ARB. The State of California has determined that DPM from diesel-fueled engines poses a chronic health risk with chronic (long-term) inhalation exposure. The California Office of Environmental Health Hazard Assessment recommends using a70-year exposure duration for determining residential cancer risks. Because of the project size and short duration, and the distance to the nearest sensitive receptor, the project construction would not pose a toxic risk to nearby residents.

NATURALLY OCCURRING ASBESTOS

The Department of Conservation, Division of Mines and Geology published a guide entitled A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos, for generally identifying areas that are likely to contain naturally occurring asbestos. The guide includes a map of areas where formations containing naturally occurring asbestos in California are likely to occur. There are no asbestos areas identified in the vicinity of the proposed project. For this reason, the project

is not anticipated to expose workers or nearby receptors to naturally occurring asbestos. Impacts would be less than significant.

Conclusion: This impact is ***less than significant.***

Mitigation Measures: None are required.

Odors (e): According to the GAMAQI, analysis of potential odor impacts should be conducted for the following two situations:

- Generators – projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate; and

- Receivers – residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

The proposed project is a replacement bridge project and does not contain land uses typically associated with emitting objectionable odors. Diesel exhaust and ROGs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not be at a level to induce a negative response.

The project site is not located within the Project Screening Levels distances from the common odor producing facilities presented in Table 4-2 of the GAMAQI. Therefore, development of the project would not create a significant odor impact.

Conclusion: This impact is ***less than significant.***.

Mitigation Measures: None are required.

3.4 BIOLOGICAL RESOURCES

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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 Wildlife 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 Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Response

Information in this section is based on the Natural Environment Study prepared for the project and included in its entirety as Appendix B.

The Biological Study Area (BSA) that was assessed for the proposed project encompassed the roadway approaches, existing bridge, and potential staging areas as shown in Figure 2-3.

METHODOLOGY

Literature Review

The methods used to evaluate the biological resources on the project site and determine potential impacts to those resources caused by removal and replacement of the bridge include:

- Searching databases to obtain existing information on the site and surrounding area;
- Characterizing vegetation associations and habitat conditions present on the project site; and
- Inventorying plant and wildlife species on the project site, and assessing the potential for special status species occurrences.

Prior to conducting field work, a query of the CNDDB (CNDDB, CDFW 2012) was conducted to obtain a list of sensitive natural communities and special status species known to potentially occur in the region of the project site. The query included the following nine USGS 7.5-minute topographic quadrangles that surround the project site:

- Cairns Corner;
- Exeter;
- Rocky Hill;
- Tulare;
- Tipton;
- Visalia;
- Lindsay;
- Woodville; and
- Porterville.

A query of the CNPS database (CNPS 2012) was conducted for the same quadrangles to provide information on additional plant species of concern known to potentially occur within the project site vicinity. A similar database search for the same area was also conducted using the USFWS list (USFWS 2012a) of federally-listed species known to occur in the project site vicinity. The list was augmented with animals designated as "Fully Protected" by the California Department of Fish and Wildlife (CDFW) Code Sections 5050 (Fully Protected reptiles and amphibians), 3511 (Fully Protected birds), and 4700 (Fully Protected mammals). Relevant recovery plans and listing packages for threatened and endangered species were reviewed to determine recovery strategies and assess the potential for Critical Habitat to occur on or in the vicinity of the project site. Only those sensitive natural communities and special-status species with the potential to occur on the project site are considered in this report.

The National Wetlands Inventory (NWI); USFWS 2012b) and Federal Emergency Management Agency (FEMA 2012) flood zone databases were additionally reviewed. Soils on the project site and vicinity were researched using maps from the Natural Resources Conservation Service (NRCS; USDA Web Survey 2012). These sources provide detailed information of climatic conditions and edaphic conditions that could potentially support various sensitive species.

Pedestrian Survey

Quad Knopf biologists Jeremy Wiggins, Belen Perez, and Tim Madison conducted a focused biological survey of the project site on February 29, 2012. The survey included all areas within 200 feet of the project site. This survey was conducted to:

- Characterize vegetation associations and habitat conditions present on the project site;
- Inventory plant and wildlife species on the project site; and
- Assess the potential for special status species to occur on or near the project site.

Vegetative communities present on the project site were classified using the Holland system (Holland 1986). This classification system categorizes communities according to the dominant species present. Plant species were identified using the nomenclature of the *Jepson Manual: Higher Plants of California* (Hickman 1993). Community boundaries and the ordinary high water mark (OHWM) of Outside Creek were mapped using a Trimble GeoXH Global Positioning System (GPS) unit with sub-meter accuracy.

A determination of the potential for special status plant and wildlife species to occur on the project site was made based upon site conditions including the presence of vegetative communities, soil types, existing levels of disturbance; and the known elevation range, habitat affinities, and other natural history information available for each of the potentially occurring species.

Physical Conditions of the BSA

The BSA is located is located in flat terrain. Outside Creek, a branch of the Kaweah River, originates to the east. Water to the Kaweah River is controlled by the United States Army Corps of Engineers (USACE) at Kaweah Lake, for the purposes of recharging groundwater (winter releases) and irrigating agricultural lands (summer releases). Eight soil types occur within 10 miles of the BSA (See Figure 3, Appendix B). Flamen Loam occurs on the project site. The BSA is not located within a flood zone (see Figure 4 in Appendix B). The nearest wetland identified by the NWI is 0.81 mile south-southeast of the BSA (See Figure 5, Appendix B).

Average annual temperatures vary from a high mean temperature of 97 degrees in July to a low mean temperature of 36 degrees in December. The climate is classified as Mediterranean. Precipitation in the BSA occurs mainly between October and April, with an average annual rainfall of 12.2 inches. The wettest month of the year is usually January, with an average rainfall of 2.47 inches.

Biological Conditions in the BSA

SENSITIVE NATURAL COMMUNITIES

Three sensitive natural communities (Great Valley Valley Oak Riparian Forest, Northern Claypan Vernal Pool, and Valley Sacaton Grassland) are known to occur in the project region, but only the Great Valley Valley Oak Riparian Forest and Valley Sacaton grassland have been recorded within ten miles of the project site (Figure 3.4-1) There is one occurrence of Valley Sacaton Grassland approximately nine miles east-northeast of the project site and one occurrence of Great Valley Valley Oak Riparian Forest approximately ten miles east-northeast of the project site.

SPECIAL-STATUS PLANTS

Thirteen special-status plant species historically occurred in the project region. Only 11 of these species have been recorded within 10 miles of the project site (Figure 3.4-1). These include:

- California jewel-flower;
- California satintail;
- Earlimart orache;
- San Joaquin adobe sunburst;
- brittlescale;
- calico monkeyflower;
- lesser saltscale;
- recurved larkspur;
- spiny-sepeled button-celery;
- striped adobe-lily; and
- subtle orache.

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CNDDB RECORDS WITHIN 10 MILES OF THE PROJECT SITE

Figure 3.4-1

None of these plants were observed on the project site and there is no suitable habitat present that would support any of these species. The stream itself has been channelized and all other areas of the project site has been heavily impacted by agricultural and development activities. The site is mostly bare dirt and there is no riparian habitat.

Vegetation

Agricultural development is the dominant land use surrounding the project site. The area to the northwest is a rural residence, the area to the northeast, east, and southeast are all disked fields and the area to the southeast, west, and northwest is an orchard. The site itself is intesively managed for weed control and has little to no vegetation cover. There is no riparian vegetation on the project site. There were 12 plant species observed on and near the site during the biological survey (Table 3.4-1).

Table 3.4-1
Plant Species Observed On and Within the Vicinity of the Outside Creek Bridge Replacement Project Site, Tulare, California

Common Name	Scientific Name
Shepard's Purse	*Capsella bursa-pastoris*
Cheeseweed	*Malva parviflora*
horsetail	*Equisetum spp.*
mustard spp.	*Brassica spp.*
creek monkeyflower	*Mimulus guttatus*
puncture vine	*Tribulus terrestris*
horseweed	*Conyza canadensis*
sedge	*Cyperaceae*
poison hemlock	*Conium maculatum*
cudweed	*Pseudognaphalium canescens*
cocklebur	*Xanthium strumarium*
bunchgrass	*Poaceae*

SPECIAL STATUS WILDLIFE

The database searches identified 14 special status wildlife species as occurring within the project region. Only nine of the 14 have historical records occurring within ten miles of the project site (Figure 3.4-1). None of these species or diagnostic sign of these species were observed during the biological survey. However, it is possible given the site conditions that four of the nine species could occur on the site as transient foragers. These species are the American badger (*Taxidea taxus*), San Joaquin kit fox (*Vulpes macrotis mutica*), Swainson's hawk (*Buteo swainsoni*), and the western mastiff bat (*Eumops perotis californicus*). They are not expected to inhabit the project site on a permanent or semi-permanent basis. There is no riparian corridor to provide habitat for the western mastiff bat, western pond turtle, or Swainson's hawk to breed, roost, or forage. Migratory birds protected under the Migratory Bird Treaty Act could potentially nest in the orchard located to the south of the project site.

Wildlife

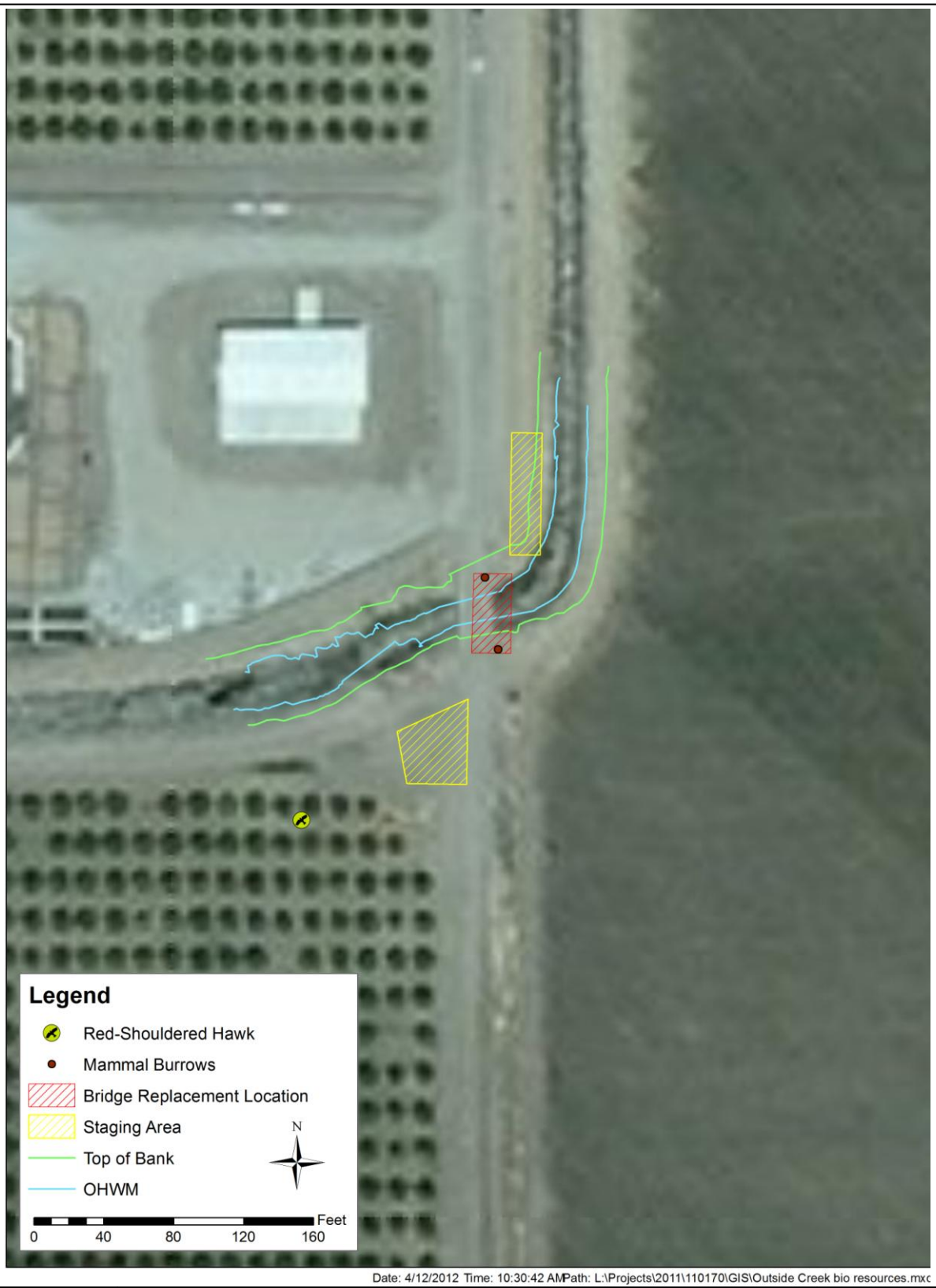
Wildlife observed on the project site (Table 3.4-2) included a red-shouldered hawk (*Buteo lineatus*), killdeer (*Charadrius vociferus*), common raven (*Corvus corax*), and American crow (*Corvus brachyrhynchos*). Evidence of cliff swallow (*Petrochelidon pyrrhonota*) nests was observed underneath the bridge but no intact nests or individuals were present. The surrounding agricultural fields provide good foraging opportunities for various raptor species, but there are no trees large enough to support raptor nesting except for the orchards to the southwest, west, and northwest of the site. These orchards may also provide habitat for nesting passerine birds. Two small mammal burrows were observed underneath the bridge (Figure 3.4-2); one near each of the abutments, but it was not possible to determine what species use these burrows.

Table 3.4-2
Wildlife Species Observed On and Within the Vicinity of the Outside Creek Bridge Replacement Project Site, Tulare, California

Common Name	Scientific Name
red-shouldered hawk	*Buteo lineatus*
killdeer	*Charadrius vociferus*
raven	*Corvus corax*
crow	*Corvus brachyrhynchos*
cliff swallow	*Petrochelidon pyrrhonota*

WATERS

Outside Creek is an intensively managed feature that is used solely for irrigation storage and groundwater recharge purposes, and so has an artificial inundation and drying regime. It is considered to be isolated with no significant nexus to Waters of the United States. Although it is not regulated by the U.S. Army Corps of Engineers (ACOE), it is likely considered to be waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB). In accordance with the Porter-Cologne Act, the RWQCB typically claims jurisdiction of all surface waters. The CDFW could also potentially claim jurisdiction of Outside Creek under CDFW Code Section 1600 regardless of its nexus to other waterways. However, it is considered unlikely that CDFW would claim such jurisdiction because this feature lacks riparian habitat, does not support sensitive biological resources, and is generally devoid of any semblance of a wildlife community.



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BIOLOGICAL RESOURCES

Figure 3.4-2

MOVEMENT CORRIDORS

There are no true movement corridors within the BSA. Wildlife movement corridors are routes that provide shelter and sufficient food supplies to support wildlife species during continual regional migration. Movement corridors generally consist of riparian, woodland, or forested habitats that span contiguous acres of undisturbed habitat, and are important elements of resident species' home ranges. Wildlife activity within and along Outside Creek is minimal given its ephemeral flow and relatively high level of disturbance.

Substantial adverse effect on sensitive species (a): Suitable habitat for sensitive plant species is not present in the project area. The stream has been channelized, and the surrounding area is primarily bare ground with no riparian habitat. The area has been heavily impacted by agricultural and development activities. The project site does not include suitable habitat for any special status plant species and none were observed during the surveys. They are considered absent from the project site. ***No impacts*** to special-status plant species would occur.

Although the database searches listed 13 special status wildlife species as potentially occurring within the nine USGS quadrangles queried, it was determined that only the following species had the potential to occur within the BSA: San Joaquin kit foxes, American badger, Swainson's hawk, breeding raptors, and other migratory birds. These species are further discussed below. No special status wildlife species were observed during the reconnaissance survey.

SPECIAL STATUS MAMMALS

San Joaquin kit fox

No San Joaquin kit foxes or sign of San Joaquin kit foxes (e.g., dens, tracks, scat, characteristic scratch marks) were observed within the BSA. Two small mammal burrows were identified approximately near the bridge abutments (see Figure 3.4-2), however, it was not possible to determine what species use these burrows. There was no evidence that this burrow was actively used by the San Joaquin kit fox. However, due to the mobility of this species and its preferred foraging habitat, this species is anticipated to potentially occur on the project site as an occasional transient.

Section 9 of the Endangered Species Act of 1973, as amended, prohibits the "take" of any federally listed endangered species by any person (an individual, corporation, partnership, trust, association, etc.) subject to the jurisdiction of the United States. As defined in the Act, take means " . . . to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Thus, not only is a listed animal protected from activities such as hunting, but also from actions that damage or destroy its habitat.

Small projects are considered by USFWS to be those projects with small footprints, such as bridge repairs. These projects must stand alone and not be part of, or in any way connected to, larger projects (i.e., bridge repair or improvement to serve a future urban development). Impacts to San Joaquin kit foxes from these small projects can be precluded by implementation of the

standard avoidance and minimization measures incorporated herein as Mitigation Measure #3.4.1.

Conclusion: During construction the project may have a ***potentially significant impact*** on San Joaquin kit fox if they are present on the site through ground clearing and construction activities.

Mitigation Measure #3.4.1: Because there is the potential for San Joaquin kit foxes and American badger to occur on the project site, the USFWS Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (2011) shall be follow. The measures that are listed below have been excerpted from those guidelines and will protect San Joaquin kit foxes from direct mortality and from destruction of active dens and natal or pupping dens. The County shall determine the applicability of the following measures depending on specific construction activities and shall implement such measures when required.

- Pre-construction surveys shall be conducted no fewer than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the San Joaquin kit fox or American badger. Exclusion zones shall be placed in accordance with USFWS Recommendations using the following:

Potential Den	50 foot radius
Known Den	100 foot radius
Natal/Pupping Den (Occupied and Unoccupied)	Contact U.S. Fish and Wildlife Service for guidance
Atypical Den	50 foot radius

  If dens must be removed, they must be appropriately monitored and excavated by a trained wildlife biologist. Replacement dens will be required. Destruction of natal dens and other "known" kit fox dens must not occur until authorized by USFWS.

- Project-related vehicles shall observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Nighttime construction shall be avoided, unless the construction area is appropriately fenced to exclude kit foxes. The area within any such fence must be determined to be uninhabited by San Joaquin Kit foxes prior to initiation of construction. Off-road traffic outside of designated project areas shall be prohibited.

- To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures listed below for contacting the USFWS and CDFW shall be implemented.

- Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a

diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped.

- All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from a construction or project site.

- No firearms shall be allowed on the project site.

- To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets shall be permitted on the project sites.

- A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox, or who finds a dead, injured or entrapped individual. The representative's name and telephone number shall be provided to the USFWS and CDFW.

- In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS and CDFW should be contacted for advice.

- Any contractor, employee(s), or military or agency personnel who inadvertently kills or injures a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.

The Sacramento Fish and Wildlife Office and CDFW will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, 2800 Cottage Way, Suite W2605, Sacramento, CA 95825-1846, and (916) 414-6620. The CDFW contact is Mr. Scott Osborn at 1416 9th Street, Sacramento, CA 95814, (916) 324-3564.

- (Employee Education Program). Prior to the start of construction at the proposed Project site the applicant will retain a qualified biologist to conduct a tailgate meeting to train all construction staff that will be involved with the proposed Project on all sensitive biological resources, including the San Joaquin kit fox, with the potential to occur on or near the Project site. This training will include a description of the sensitive biological resources and their habitat requirements; a report of the occurrence of any sensitive biological resources in the proposed Project area; an explanation of the status of the species and its protection under the endangered species act; and a list of the measures being taken to reduce impacts to the species during proposed Project construction and implementation.

Effectiveness of Measure: Implementation of Mitigation Measure #3.4.1 would reduce the impact on San Joaquin kit fox to a level that is ***less than significant with mitigation incorporated*.**

American Badger

No American badgers or sign of American badgers (e.g., dens, tracks, scat, characteristic scratch marks) were observed within the BSA. Two burrows were identified near the bridge abutments (see Figure 3.4-2), but it was not possible to determine what species use these burrows. There was no evidence that this burrow was actively used by the American badger. However, due to the mobility of this species and its preferred foraging habitat, this species is anticipated to potentially occur on the project site as an occasional transient.

Small projects are considered by USFWS to be those projects with small footprints, such as bridge repairs. These projects must stand alone and not be part of, or in any way connected to, larger projects (i.e., bridge repair or improvement to serve a future urban development). Impacts to American badger from these small projects can be precluded by implementation of the standard avoidance and minimization measures incorporated herein as Mitigation Measure #3.4.1.

Conclusion: During construction the project may have a ***potentially significant impact*** on American badger if they are present on the site through ground clearing and construction activities.

Mitigation Measure: Mitigation measures for this species are similar to those for the San Joaquin kit fox. Pre-construction surveys and other measures intended to reduce or avoid impacts to the San Joaquin kit fox will also be effective in reducing potential impacts to the American badger. Accordingly, the project shall implement Mitigation Measure #3.4.1.

Effectiveness of Measure: Implementation of Mitigation Measure #3.4.1 would reduce the impact on American badger to a level that is ***less than significant with mitigation incorporated***.

SPECIAL STATUS BIRDS

Swainson's Hawk

Although habitat within the project site is not suitable to support this species, there were no Swainson's hawks observed in the vicinity of the project area during the site surveys. Nonetheless, the Swainson's hawk is known to occur in low numbers in the southern San Joaquin Valley and it could occur on or near the project site as an occasional transient forager.

Conclusion: Construction activities could have a ***potentially significant impact*** on Swainson's hawk as these species are sensitive to disturbance, particularly during the nesting season.

Mitigation Measure #3.4.2: To avoid impacts to Swainson's hawk, the following measures shall be implemented:

- All trees which are suitable for Swainson's hawk nesting that are within a ½ mile of construction activities shall be inspected for nests by a qualified biologist;

- Swainson's hawk surveys in accordance with the Swainson's Hawk Technical Advisory Committee's "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" will be conducted to determine whether Swainson's hawks nest occur within a ½ mile of the project site by conducting surveys at the following intensities, depending upon dates of initiation of construction:

Construction start	Survey period	Number of surveys	Timing
1 January to 20 March	1 January to 20 March	1	All day
21 March to 24 March	1 January to 20 March	1	All day
	21 March to 24 March	Up to 3	Sunrise to 1000 and 1600 to sunset
24 March to 5 April	1 January to 20 March	1	All day
	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset
6 April to 9 April	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset
	6 April to 9 April	Up to 3	Sunrise to 1000 and 1600 to sunset
	1 January to 20 March	1 (if all 3 surveys are performed between 6 and 9 April, then this survey need not be conducted)	All day
10 April to 30 July	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset
	6 April to 20 April	3	Sunrise to 1200 and 1630 to sunset
31 July to 15 September	6 to 20 April	3	Sunrise to 1200 and 1630 to sunset
	10 to 30 July	3	Sunrise to 1200 and 1600 to sunset

A nest can be eliminated as a potential Swainson's hawk nest if another species of raptor is using the nest;

- If Swainson's hawks are detected to be nesting in trees within ~~600 feet~~ ½ mile of the construction area, construction will not occur within this zone until after young Swainson's hawks have fledged (this usually occurs by early June). The nest will be monitored by a qualified biologist to determine fledging date. If Swainson's hawks are found within the project area, the project site would be considered foraging habitat and compensation for foraging habitat would be required by CDFW at a ratio of 0.75 to 1 (0.75 acre for every 1.0 acre adversely affected);

Effectiveness of Measure: Implementation of Mitigation Measure #3.4.2 would reduce the impact on Swainson's hawk to a level that is ***less than significant with mitigation incorporated*.**

Migratory Birds and Raptors

There is no riparian corridor to provide habitat for raptors to breed, roost, or forage on the project site on a permanent basis, but they may occur as a transient forager. Migratory birds protected under the Migratory Bird Treaty Act could also potentially nest in the orchard located to the south of the project site.

Conclusion: The project may have a ***potentially significant impact*** on migratory birds and raptors.

Mitigation Measure #3.4.3: To protect breeding raptors and migratory birds, the following shall be implemented:

If grading or other ground clearing or construction activities occur during the avian breeding season (February 1 through August 15), then pre-construction surveys should be conducted within ~~500 feet~~ ½ mile of the project site in habitats that provide the potential for nesting raptors and migratory birds to occur. The survey should be conducted no more than 14 days prior to initiation of those activities. If more than 14 days lapse between the time of the pre-construction survey and the start of these activities, another preconstruction survey must be completed. During the nesting period, raptor nests shall be avoided by ~~500 feet~~ ½ mile, and other migratory bird nests shall be avoided by 250 feet. These distances will be clearly delineated with Environmentally Sensitive Area (ESA) fencing.

Effectiveness of Measure: Implementation of Mitigation Measure #3.4.3 would reduce the impact on raptors and migratory birds to a level that is ***less than significant with mitigation incorporated*.**

Substantial adverse effect on any riparian habitat or other sensitive natural community (b): There is no riparian vegetation or other sensitive vegetative community present on the project site and no habitat capable of supporting resident sensitive species exists on the site. Thus, the project should have no impact to any special status plant species or communities.

Conclusion: There would be ***no impact*** to riparian habitat or other sensitive natural communities.

Mitigation Measures: None would be required.

Substantial adverse effect on federally protected wetlands (c): No wetlands occur on or near the BSA, and no impacts to wetlands will result from project activities (see Figure 5 in Appendix B). Outside Creek is an intensively managed feature that is used solely for irrigation storage and groundwater recharge purposes, and so has an artificial inundation and drying regime. It is unlikely to be considered a Waters of the United States by the U.S. Army Corps of Engineers. The County will be required to consult with the U.S. Army Corps for a final determination.

Based upon anticipated demolition and construction methods to be implemented in the design plan, the proposed project could impact up to approximately 0.01 acre of waters within the Ordinary High Water Mark (OHWM). The project would qualify for coverage under a General Nationwide Permit 14 (Linear Transportation Projects). This permit applies to activities required for the construction, expansion, modification, or improvement of linear transportation crossings (e.g., highways, railways, and trails). Linear transportation projects in non-tidal waters are approved provided that the discharge does not cause the loss of greater than 0.5 acre of waters of the U.S. The permitee must notify the District Engineer in accordance with General Condition 13, though, if the discharge causes the loss of greater than 0.1 acre of waters of the U.S. Given the anticipated impacts to Waters of the U.S. by the Outside Creek Bridge Replacement project, no pre-construction notification to U.S. Army Corps of Engineers is necessary.

Outside Creek is likely considered to be waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB). In accordance with the Porter-Cologne Act, the RWQCB typically claims jurisdiction of all surface waters. The CDFW could also potentially claim jurisdiction of Outside Creek under CDFW Code Section 1600 regardless of its nexus to other waterways. However, it is considered unlikely that CDFW would claim such jurisdiction because this feature lacks riparian habitat, does not support sensitive biological resources, and is generally devoid of any semblance of a wildlife community. Consultation with the RWQCB through Section 401 permitting and with CDFW through Section 1602 permitting is recommended.

Conclusion: The project site contains drainages which may be considered jurisdictional features. Implementation of the proposed project may have a ***potentially significant impact*** on wetlands and/or other waters of the U.S (WOUS) and/or waters of the state. However, the CDFW has jurisdiction over any modifications to the bed, bank and channel of the creek.

Mitigation Measure #3.4.4: The applicant will be required to obtain the following permits: Section 404 permit from the USACE, Section 401 permit from the Regional Water Quality Control Board (RWQCB), and a Section 1602 Streambed Alteration Agreement from CDFW. Impact acreage amounts will be determined when contract drawings are complete and can provide an accurate estimate as to the extent of proposed impacts to WOUS in result of project construction. If impacts to WOUS exceed 0.5 acres then an application for a Section 404 Individual Permit would be required prior to project approval.

Effectiveness of Measure: Implementation of Mitigation Measure #3.4.4 would reduce the impacts to the watercourse to a level that is ***less than significant with mitigation incorporated.***

Other Species:

Protected Bats

Mitigation Measure #3.4.5: Although no signs of bats were discovered during the biological surveys conducted for the site, there still exists the possibility of protected bat species occurring at the site. The County will consult with CDFW to determine if additional surveys are warranted. If additional surveys are warranted, the County will work with CDFW to determine the extent of

such surveys and will conduct such surveys prior to commencement of project activities. The surveys may consist of some or all of the following:

- Using an appropriate combination of structure inspection, sampling, exit counts, and acoustic surveys, a biologist with expertise in bat biology and ecology and approved by the DFG shall survey the bridge structure and the surrounding area that may be impacted by the Project for bats. Surveys shall be conducted at the appropriate time of year to verify presence. If bats are found using the bridge, the biologist shall identify the bats to the species level, and evaluate the colony to determine its size and significance. The bat survey shall include: 1) the exact location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number of bats present at the time of visit (count or estimate); 3) each species of bat present shall be named (include how the species was identified); 4) the location, amount, distribution and age of all bat droppings shall be described and pinpointed on a map; and 5) the type of roost; night roost (rest at night while out feeding) versus a day roost (maternity colony) must also be clearly stated. The results of the bat survey shall be submitted to the DFG prior to the initiation of construction activities. The qualifications of the biologist shall be submitted to the DFG for approval.

- If the bridge to be replaced houses a maternity colony of bats, construction activities shall not occur during the recognized breeding season of the bat species found to be occupying the structure (typically between March 1 to October 1 for most species, but can vary depending upon location, elevation, and site specific conditions). Under no circumstances shall construction activities result in harm or death to any adult or juvenile bats.

- If bats or their sign are documented during surveys, a qualified biologist shall submit a design for bat exclusion to the DFG for review and approval. The design for bat exclusion shall be submitted to the DFG a minimum of 60 days in advance of the anticipated construction start date.

- A DFG approved biologist shall direct implementation of exclusionary devices designed to prevent bats from utilizing bridges before construction activities begin. Passage underneath the bridge (through the channel) shall not be impeded. An acceptable example is netting with 0.5-inch by 0.5-inch mesh or smaller. Exclusionary mesh netting must be thick plastic with no exposed overlap joints, applied tightly, regularly maintained, and shall only be installed seven (7) days (or earlier) after a survey has been conducted. If bats are found using any bridge, roost entrances shall be fitted with one-way doors that allow exits but prevent entrance for a period of several days to encourage bats to relocate.

- If surveys document that a bridge is occupied by a bat roost or colony, replacement bridges shall be constructed with similar structural features to encourage continued roosting by bats. Replacement roosts should have comparable thermal stability and durability, the same or similar search image, and the same cryptic roosting conditions as the roosts they replace. The design for replacement roost structures shall be submitted to the DFG for approval a minimum of 60 days in advance of anticipated construction start date.

- If replacement roosts are constructed, qualified biologist with specific expertise in bat biology and ecology, and approved by DFG, shall monitor replacement roost structures for sign of bat use the first, third, and fifth year after construction completion. A report detailing the monitoring effort shall be submitted to DFG for review.

- No gasoline or diesel engines shall be stored or operated under any bridge.

- Activities shall be limited to the period of daylight hours; no night work is authorized unless otherwise agreed to by the DFG.

Effectiveness of Measure: Implementation of Mitigation Measure #3.4.5 would reduce the impacts to protected bat species to a level that is ***less than significant with mitigation incorporated*.**

Colonial Birds/Swallows

Mitigation Measure #3.4.6:

- If construction schedule allows, construction activities shall be avoided during the nesting season. If any work is anticipated on the bridge during the nesting period, appropriate protection and avoidance measures that would prevent nesting on portions of the structure that will cause a conflict between performing necessary work and nesting swallows shall be implemented:

    - Prior to February 15, existing nests shall be removed or exclusionary devices such as netting shall be used. Weekly scalping, between February 15 and August 15, of partially completed nests is permitted to discourage nesting.
    - If new nests are built or existing nests become occupied, then any work that would interfere with or discourage swallows from returning to their nests will not be permitted.
    - Swallows shall be allowed to nest on portions of the bridge where conflicts during construction are not anticipated.

- Federal and State laws protect migratory birds, their occupied nests, and their eggs from destruction. The applicable Federal law is the Migratory Bid Treat Act (15 USC 703-711), 50 CFR Part 21, and 50 CFR Part 10. Protection under California Law is found in the Fish Game code Section 3503, 3513, and 3800. Any persons responsible for violating these laws may be arrested by a representative of the Department of the Interior or a California Department of Fish and Game warden. Any person found guilty shall be fined up to $10,000 or serve a six-month imprisonment, or both.

Effectiveness of Measure: Implementation of Mitigation Measure #3.4.6 would reduce the impacts to colonial birds/swallows to a level that is ***less than significant with mitigation incorporated*.**

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 (d): There are no movement corridors for native wildlife within the BSA. Wildlife activity within and along Outside Creek is minimal given its ephemeral flow and relatively high level of disturbance and lack of vegetation. Migratory birds, however, may briefly utilize portions of Outside Creek and the orchards to the south for stopover purposes during migration.

Because the bridge is already in existence, it is unlikely that construction would alter any movement corridors. The project site contains no designated wildlife corridors within its boundaries.

Conclusion: Construction on the project site would not jeopardize the existence of any native or migratory species; therefore, the impact would be ***less than significant***.

Mitigation Measures: None are required.

Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e): Tulare County has no specific ordinance regarding oak trees or other biological resources.

Conclusion: Implementation of the proposed project will have ***no impact*** on any local policies or ordinances to protect biological resources.

Mitigation Measure: None are required.

Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (f): There are no adopted habitat conservation plans or natural community conservation plans within Tulare County.

Conclusion: There is ***no impact***.

Mitigation Measure: None are required.

3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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 §15064385?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Response

A Cultural Resources Survey Report and a Historic Property Survey Report were prepared for the project and are included as Appendix C. The assessment was undertaken to identify any potential impact to cultural resources in the Area of Potential Effect (APE), defined to include a potential staging area next to the bridge, as well as the direct impact area. To complete the assessment, pre-field research was conducted followed by a complete pedestrian survey.

The following is a summary of the reports.

The Area of Potential Effects (APE) for the project was established in consultation with Professionally Qualified Staff John Whitehouse and Local Assistance Engineer James Perrault, on 23 January 2012. Bridge Number 46 C0186 is located in rural unincorporated Tulare County ~3 miles east of the City of Tulare and conveys Road 148 over Outside Creek (See Figure 2-2). The Area of Potential Effects (APE) will include the 45 footlong bridge with an additional 700 feet on the north and 400 feet on the south of roadway reconstruction on each side of the bridge. Temporary construction easements and contractor staging areas are also included within the Project APE (see Figure 2-3).

RECORD SEARCHES

Southern San Joaquin Valley Information Center

A records search was conducted at the Southern San Joaquin Valley Information Center (SSJVIC), California Historical Resources Information System. According to the SSJVIC records, there have been no cultural surveys completed within the project APE. No cultural resources have been recorded within or adjacent to the Project APE. No cultural resource sites listed on the National Register of Historic Places, the California Register of Historic Resources, California Points of Historical Interest, State Historic Landmarks, or the California Inventory of Historic Resources have been documented within a 0.5 mile radius of the Project APE.

Native American Heritage Commission Record Search

The Native American Heritage Commission (NAHC) was contacted in order to determine whether Native American sacred sites have been identified either within or in close proximity to the project area. On March 11, 2011, the NAHC responded to the request for a search of the sacred lands file. The NAHC indicated in a written letter report that the file search failed to indicate the presence of Native American cultural resources within the 0.5 mile of the proposed project APE. Included with the response was a list of seven Native American representatives who may have knowledge of cultural resources within the project site. To ensure that all Native American resources were adequately addressed, letters to each of the seven listed tribal contacts were sent, which requested information regarding the presence of any known cultural resources on the project site or within a 0.25-mile radius beyond the project site. As of the date of this writing, no response has been received.

Pedestrian Survey

On 24 April 2012, the author conducted a cultural resources pedestrian survey of of the project APE. The Project APE comprises the existing bridge and roadway with two potential staging areas, one to the northeast along a private driveway, and the other immediately south and west of Road 148 between an existing orchard and Outside Creek channel, as well as portions of Outside Creek banks and stream bottom. At the time of the survey, the creek banks were wet and extremely slippery; however, ground visibility throughout the project APE was excellent.

An existing timber bridge (No. 46 C0186) is located within the Project APE. The bridge, oriented on a north/south axis and consisting of a single span carrying two lanes of traffic over Outside Creek, was constructed in 1950. The bridge has been determined ineligible for listing on the National Register of Historic Places. No other cultural resources over 50 years of age were noted within the Project APE.

No historical resources or properties (i.e., cultural resources eligible for inclusion on the NRHP or the California Register) were identified as a result of surface inspection of the APE, and there appears to be little likelihood of buried cultural resources within the APE. Thus it is unlikely that rehabilitation of Bridge 46 C0186 will have an effect on important archaeological, historical, or other cultural resources. No further cultural resources investigation is therefore recommended.

Historic Resources (a): The records search conducted by Sierra Valley Cultural Planning indicated that no sites were located in close proximity (within one half mile) to the APE. The record search included maps and reports maintained by the Southern San Joaquin Valley Information Center of the California Historical Resources Information System. Materials reviewed included the National Register of Historic Places, California Points of Historical Interest, The California Inventory of Historical Resources, and the California State Historic Landmarks Registry.

A letter was sent to the Native American Heritage Commission (NAHC) requesting a check of the Sacred Lands Files. The check failed to reveal any properties listed as Sacred Lands or Native American cultural resources within one half mile proximity. The NAHC did provide a list of seven individuals and groups to contact regarding the property. Letters were sent to the individuals identified by the NAHC. As of the date of this writing, no response has been received from any of those contacted.

The existing bridge is not eligible for listing on the National Register of Historic Places, and no other cultural resources over 50 years of age were noted within the APE. No evidence of prehistoric occupation or use of the project area was observed during the field survey. There appeared to be little likelihood of buried cultural resources within the APE, and it was therefore determined that the project would likely have no effect on important archaeological, historical, or other cultural resources.

Conclusion: Although considered unlikely since there is no indication of any historic resources on the project site, subsurface construction activities associated with the proposed project could potentially damage or destroy previously undiscovered historic resources. This is considered a ***potentially significant impact***. Mitigation is proposed requiring implementation of standard inadvertent discovery procedures to reduce potential impacts to previously undiscovered subsurface historic resources.

Mitigation Measure #3.5.1: Although there is no recorded evidence of historic or archaeological sites on the project site, there is the potential during project-related excavation and construction for the discovery of cultural resources. Tulare County shall incorporate into the construction contract(s) for the project a provision that includes the following measures:

- Before initiation of construction or ground-disturbing activities associated with the project, the project proponent for all project phases shall require all construction personnel to be alerted to the possibility of buried cultural resources, including historic, archeological and paleontological resources;

- The general contractor and its supervisory staff shall be responsible for monitoring the construction project for disturbance of cultural resources; and

- If a potentially significant historical, archaeological, or paleontological resource, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains or trash deposits are encountered during subsurface construction

activities (i.e., trenching, grading), all construction activities within a 100-foot radius of the identified potential resource shall immediately cease until a qualified archaeologist evaluates the item for its significance and records the item on the appropriate State Department of Parks and Recreation (DPR) forms before construction related activities are allowed to resume. The archaeologist shall determine whether the item requires further study. If, after the qualified archaeologist conducts appropriate technical analyses, the item is determined to be significant under California Environmental Quality Act, the archaeologist shall recommend feasible mitigation measures, which may include avoidance, preservation in place or other appropriate measure, as outlined in Public Resources Code section 21083.2. The County shall implement said measures.

Effectiveness of Measure: Implementation of Mitigation Measure #3.5.1 will reduce the impact on historic resources to a level that is ***less than significant with mitigation incorporated.***

Archeological Resources (b): As indicated above no sites were located in close proximity to the APE. Although the survey did not indicate the presence of any subsurface archaeological resources, there remains the possibility of causing a substantial adverse change in the significance of previously undiscovered subsurface archaeological resources, which could result from subsurface construction activities associated with the proposed project. Accordingly, this is a potentially significant impact.

Conclusion: Subsurface construction activities could cause a ***potentially significant impact*** to previously undiscovered archeological resources. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

Mitigation Measures: Implement Mitigation Measure #3.5.1

Effectiveness of Measure: Implementation of Mitigation Measure #3.5.1 will reduce the impact on archeological resources to a level that is ***less than significant with mitigation incorporated.***

Paleontological Resources (c): There are no unique geological features or known fossil-bearing sediments in the vicinity of the project site. However, there remains the possibility for previously unknown, buried paleontological resources or unique geological sites to be uncovered during subsurface construction activities. Therefore, this would be a potentially significant impact. Mitigation is proposed requiring standard inadvertent discovery procedures to be implemented to reduce this impact to a level of less than significant.

Conclusion: Subsurface construction activities could cause a ***potentially significant impact*** to previously undiscovered paleontological resources. Mitigation is proposed to reduce this potentially significant impact to a level of less than significant.

Mitigation Measure #3.5.2: Tulare County will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed project (i.e., trenching, grading), all excavations within 100 feet of the find shall be immediately temporarily suspended until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The

paleontologist shall notify the appropriate representative at the County, who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the County shall implement those measures, which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code section 21083.2.

Effectiveness of Measure: Implementation of Mitigation Measure #3.5.2 will reduce the impact on paleontological resources to a level that is ***less than significant with mitigation incorporated.***

Burial Sites (d): Although unlikely since neither the records research nor the field survey indicated the presence of such resources, subsurface construction activities associated with the proposed project could potentially disturb previously undiscovered human burial sites. Accordingly, this is a potentially significant impact. The California Health and Safety Code Section 7050.5 states that if human remains are discovered on-site, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. The NAHC shall identify the person or persons it believes to be the "most likely descendant" (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or handling of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resource Code Section 5097.98.

Although considered unlikely subsurface construction activities could cause a potentially significant impact to previously undiscovered human burial sites, however compliance with regulations would reduce this impact to less than significant.

Conclusion: This impact would be ***less than significant***.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.6 GEOLOGY/SOILS				
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction of 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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems when sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Response

Seismic Effects (a-i through a-iv):

Fault Rupture (a-i): The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. Since no known surface expression of active faults is believed to cross the site, fault rupture through the site is not anticipated. ***No impact*** would occur.

Strong Ground Shaking (a-ii): The proposed project is located in the central section of the County, within the San Joaquin Valley. This area tends to experience low levels of groundshaking, although in the event of an earthquake groundshaking is more likely than surface rupture or ground failure. The California Geological Survey maintains a web-based computer model that estimates probabilistic seismic ground motions for any location with California. The computer model estimates the "Design Basis Earthquake" ground motion, which is defined as the peak ground acceleration with a 10-percent chance of exceedance in 50 years (475-year return period). For an alluvium soil type, the project site's estimated peak ground acceleration is approximately 0.182g. .

Although the project site is located in an area of low seismic activity, the project could be affected by groundshaking from nearby faults. The San Andreas Fault lies west of the County line (and approximately 60 miles from the project area), and the Owens Valley Fault Group is approximately 80 miles east of the County line. Other, more minor faults occur in the Sierra Nevada Range on the eastern side of the County, although none occur in close proximity to the project area. The project site is located on alluvial deposits, which tend to experience greater ground shaking intensities than areas located on hard rock. However, the distance to the faults that are the expected sources of the shaking would be sufficiently great that the effects should be minimal.

Project construction would be subject to roadway design standards and specifications, such as Caltrans, and the County Public Works departments. Design standards and specifications are established to ensure that project construction meets all applicable seismic design standards for California. Seismic design standards account for peak ground acceleration, soil profile, and other site conditions and they establish corresponding design standards intended to protect public safety and minimize property damage. Compliance with the regulatory requirements of the design standards and specifications would reduce potential ground shaking impacts to ***less than significant***.

Seismic Related Ground Failure (including Liquefaction) (a-iii): Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged groundshaking. Areas most prone to liquefaction are those that are water saturated (e.g., where the water table is less than 30 feet below the surface) and consist of relatively uniform sands that are low to medium density. In addition to necessary soil conditions, the ground acceleration and duration of the earthquake must be of sufficient energy to induce liquefaction. Scientific studies have shown that the ground acceleration must approach 0.3g before liquefaction occurs in a sandy soil with relative densities typical of the San Joaquin alluvial deposits. As discussed above in impact (a-ii), the estimated peak ground acceleration is approximately 0.182g, which makes the possibility of liquefaction unlikely.

The Natural Resources Conservation Service (NRCS) soil survey for the project area indicates that the soil that underlies the project area is composed of Flamen loam. The soil is comprised of loam and has some limitations for roadway developments because of potential shrink-swell characteristics. Project construction would be subject to roadway design standards and specifications, such as Caltrans, and the County Public Works departments. Design standards and specifications are established to ensure that project construction meets all applicable seismic design standards for California. Seismic design standards account for potential ground failure and they establish corresponding design standards intended to protect public safety and minimize property damage. Compliance with the regulatory requirements of the design standards and specifications would reduce potential ground failure impacts to a ***less than significant*** level.

Landslides (a-iv): According to the Tulare County General Plan Background Report (2007), the project area is located in an area of the valley with relatively flat topography and is not located adjacent to any steep slopes or areas that would otherwise be subject to landslides. Construction of the project would involve changes to the surface and subsurface soil conditions; however, compliance with design standards and specifications would reduce potential landslide impacts to a ***less than significant*** level.

Conclusion: There would be ***no impact*** from fault rupture. Impacts from ground shaking, ground failure, and landslides would be ***less than significant*** with regulatory compliance.

Mitigation Measures: None are required.

Soil Erosion (b): The NRCS web soils survey determined that the project site consisted of Flamen loam. This soil has a K-factor of 0.32, which falls within the category of moderate erosion potential. Construction activities associated with the proposed project would involve the import and export of soil, vegetation removal, grading, and excavation activities that could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the project site. As discussed in Section 3.9: Hydrology and Water Quality, the County would be required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. The NPDES stormwater permitting programs regulates stormwater quality from construction sites, which includes erosion and sedimentation. Under the NPDES permitting program, the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) is required for construction activities that would

disturb an area of one acre or more. The SWPPP must identify potential sources of erosion or sedimentation that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement Best Management Practices (BMPs) that ensure the reduction of these pollutants during stormwater discharges. Typical BMPs intended to control erosion include sand bags, detention basins, silt fencing, storm drain inlet protection, street sweeping, and monitoring of water bodies. The implementation of a SWPPP and its associated BMPs would reduce potential erosion impacts to a level of less than significant.

Conclusion: Construction activities associated with the proposed project may cause potentially significant impacts from erosion. Compliance with regulatory measures would reduce impacts to a ***less than significant*** level.

Mitigation Measures: None are required.

Unstable Geologic Units (c): The project site currently supports the existing Outside Creek Bridge and roadway approaches. Infrastructure improvements proposed by the project would require soil engineering in accordance with Caltrans and County standards and specifications. This process would involve removal of any unsuitable soils, the placement of engineered fill, and compaction in order to ensure that the structures to be constructed as proposed by the project are adequately supported. These practices would ensure the proposed project is located on stable soils and geologic units and would not be susceptible to settlement or ground failure.

Conclusion: Impacts would be ***less than significant***.

Mitigation Measures: None are required.

Expansive Soil Hazards (d): The soil in the project area consists of Flamen loam, which occur son alluvial fans, at slopes varying from 0 to 2 percent. These soils have a moderate clay content (approximately 23 percent) and possess a linear extensibility of 3.3 percent. Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed. Based on the characteristics of the soils in the project site, they would be considered to have moderate shrink-swell properties and may be considered expansive.

Project construction would be subject to roadway design standards and specifications, such as Caltrans, and the County Public Works departments. Design standards and specifications are established to ensure that project construction meets all applicable seismic design standards for California. Seismic design standards account for peak ground acceleration, soil profile, and other site conditions and they establish corresponding design standards intended to protect public safety and minimize property damage. Compliance with the regulatory requirements of the design standards and specifications would reduce potential expansive soil hazards to ***less than significant***.

Conclusion: Impacts would be ***less than significant.***

Mitigation Measures: None are required.

Wastewater Disposal (e): No permanent wastewater facilities using septic tanks or alternative wastewater disposal systems would be required by the project. During construction, portable sanitation facilities (portable toilets) would be used. Sanitation waste would be disposed of in accordance with sanitation waste management practices at an approved wastewater treatment plant.

Conclusion: Impacts would be ***less than significant***.

Mitigation Measures: None are required.

3.7 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Response

Greenhouse gases (GHG) are identified as any gas that absorbs infrared radiation in the atmosphere. GHGs include water vapor, carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), halogenated fluorocarbons (HCFCs), ozone (O3), perfluorinated carbons (PFCs), hydrofluorocarbons (HFCs), and sulfur hexafluoride (SF6). On December 7, 2009, the U.S. Environmental Protection Agency (EPA) issued an Endangerment Finding on the above referenced key well-mixed GHGs. These GHGs are considered "pollutants" under the Endangerment Finding. However, these findings do not themselves impose any requirements on industry or other entities.

The Global Warming Solutions Act (AB 32) was passed by the California Legislature and signed into law by the Governor in 2006. AB 32 requires that GHG emissions in 2020 be reduced to 1990 levels. GHG rules and market mechanisms for emissions reduction are required to be in place by January 1, 2012.

Greenhouse Gas Emissions (a): During construction activities, greenhouse gases would be emitted from construction equipment, vehicle, and truck exhaust. The SJVAPCD does not have thresholds or guidance regarding the significance of construction related emissions. However, that does not mean a significance finding should not be identified. For purposes of estimating GHG impacts, the construction year was estimated to be 2012, if construction were to occur later emissions would decrease slightly. Project construction would occur prior to the year 2020. The Sacramento Metropolitan Air Quality Management District's Road Construction model was used to estimate emissions from the proposed project. Project GHG emissions are shown in Table 3.3-1. As shown in Table 3.3-1, the Project's greenhouse gas emissions total 192 Metric Tons of CO_2 equivalent ($MTCO_2e$)

Global climate change is a cumulative impact. A project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHG emissions. However, the impacts on global warming and climate change are indirect,

not direct, and the emissions cannot be correlated with specific impacts based on science currently available.

A level of significance has not been established for temporary CO_2 emissions. The State of California has implemented regulations that require reporting of CO_2 emissions from stationary sources with emissions of CO_2 that exceeds 25,000 metric tons per year from combustion sources. The proposed project will have less than 1 percent of this reporting threshold.

Emissions from construction are temporary in nature. The SJVAPCD has implemented a guidance policy for development projects within their jurisdiction. This policy, "Guidance for Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," approved by the Board on December 17, 2009, does not address temporary GHG emissions from construction, nor does this policy establish numeric thresholds for ongoing GHG emissions. AB 32 requires that emissions within the State be reduced to 1990 levels by the year 2020. These construction emissions are minimal and would mainly occur prior to 2020; therefore, construction-generated GHGs are less than significant and no mitigation is required.

Conclusion: This impact is ***less than significant***.

Mitigation Measures: There are none required.

Conflict with Plans (b): The County of Tulare does not have an adopted Climate Action Plan. The County has drafted a Climate Action Plan which was approved by the Planning Commission and has yet to go before the County Board of Supervisors for adoption. Therefore, the plan adopted for the purpose of reducing the emissions of GHGs applicable to the proposed project is ARB's approved Scoping Plan, which will be used to determine significance for this criterion. As discussed previously, AB 32 requires that emissions within the State be reduced to 1990 levels by the year 2020. The project would generate temporary construction emissions prior to the year 2020; therefore, impacts would be less than significant.

Conclusion: This impact is ***less than significant***.

Mitigation Measures: There are none required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

3.8 HAZARDS/HAZARDOUS MATERIALS

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐

Response

Hazardous Materials (a, b): Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. The use of such materials would be considered minimal and would not require these materials to be stored in bulk form. As such, the project would not create a significant hazard to the public through the routine use, transport, or disposal of hazardous materials. Since hazardous materials will not be stored in bulk form, no impacts are expected regarding potential upset and accidental conditions involving the release of hazardous materials into the environment. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. Further regulatory requirements, requires construction contractor(s) to perform water pollution control work in conformance with the requirements in the "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual" to reduce potential impacts from construction, storage of equipment and vehicles, clean up of concrete, and other construction related activities. There are no known hazardous emitting sites within one mile, including either hazardous waste sites or underground storage tanks; therefore there is no possibility that project construction could cause an upset or accidental release. Because of the age of the bridge, there is the possibility that the bridge could contain asbestos building material, lead-based paint and/or treated lumber that could have impacted soil surrounding the bridge location. The disturbance of these materials during demolition and construction would be a potentially significant impact from hazardous materials. Mitigation is proposed that would require a hazardous materials bridge survey and soil testing to ensure that the material is handled and disposed of properly. Implementation of this mitigation would reduce impacts to a less than significant level.

Conclusion: Impacts are ***potentially significant***.

Mitigation Measures #3.8.1: Prior to issuance of demolition permits for the existing bridge, a hazardous materials bridge survey shall be conducted. The survey shall be conducted for asbestos, lead-based paint, and treated wood. Additionally, if soil disposal is proposed, soil sampling shall be conducted prior to disposal. The report recommendations shall be incorporated into construction contract provisions. At a minimum, provisions/specifications should be included in the contractor's construction package that addresses lead, asbestos-containing materials, and/or pressure treated lumber for the purpose of worker and public safety.

Effectiveness of Measure: Implementation of Mitigation Measure #3.8.1 will reduce the impact of hazardous materials to a level that is ***less than significant with mitigation incorporated.***

Exposure of Schools to Hazardous Materials (c): The project is not located within one-quarter mile of a school.

Conclusion: There would be ***no impact.***

Mitigation Measures: None are required.

Hazardous Materials Site (d): The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As such, no impacts would occur that would create a significant hazard to the public or the environment.

Conclusion: There would be ***no impact.***

Mitigation Measures: None are required.

Airport Land Use (e, f): The project is not located within an airport land use plan. The project is not located in the vicinity of a private airstrip. The nearest airport is the Visalia Airport located approximately 12 miles west of the proposed project adjacent to State Highway 99.

Conclusion: There would be ***no impacts***.

Mitigation Measures: None are required.

Adopted Emergency Response Plan or Emergency Evacuation Plan (g): The project will require temporary closure of Road 148 at the project site during the demolition and replacement of the bridge. However, this route is not included in an Emergency Response Plan or Emergency Evacuation Plan. Additionally the road typically has only local traffic, which can use Road 140 to the west or Road 152 to the east as alternative routes. During construction, standard procedures will be used to assure that emergency response vehicles will not suffer delays in traveling through the project area.

Conclusion: Impacts would be ***less than significant***.

Mitigation Measures: None are required.

Wildfires (h): According to the Tulare County General Plan Background Report (2007), the project site is located in a rural area, with a moderate fire hazard. The California Department of Forestry and Fire Protection indicates the area is in a Local Responsibility Area (LRA); there are no Very High Fire Hazard Severity Zones in this LRA. The areas surrounding the project site contains one metal structure and is otherwise agricultural production. Habitat immediately adjacent to bridge structure consists of only spare grasses and low weedy plants. There are no trees or shrubs within the project area. Adjacent fields include orchards and row crops. There is a low potential for wildland fires within these parameters, nevertheless, typical construction related impacts include the potential fire threat associated with equipment and vehicles coming in contact with vegetative areas. Construction vehicles and equipment such as welders, torches, and grinders may accidentally spark and ignite vegetation within the study area.

Conclusion: The increased risk of fire during the construction of the project would be similar to that found at other roadway construction sites and would be considered ***potentially significant.***

Mitigation Measure #3.8.2: Construction contractors shall ensure that any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.

Mitigation Measure #3.8.3: Construction contractors shall ensure that during construction, staging areas, building areas, and/or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fuel for combustion. To the extent feasible, the contractor shall keep these areas clear of combustible materials to maintain a firebreak.

Effectiveness of Measures: With the implementation of Mitigation Measure #3.8.2 and #3.8.3, potential wildland fires would be reduced to a level of ***less than significant with mitigation incorporated***.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.9 HYDROLOGY/WATER QUALITY				
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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Response

Potential short-term impacts to surface waters may occur during construction, mainly from exposure of loose soil during construction-related activities, such as grading and excavation. Suspended solids, dissolved solids, and organic pollutants may enter surface water bodies while soils are disturbed and dust is generated. In addition, construction activities have the potential to generate waste materials (concrete, metal, rubble, etc) or discharge pollutants to surface waters from construction wastes and fuel spills/leaks.

To mitigate these potential effects, required erosion and pollutant control measures would be implemented in compliance with the NPDES General Permit prior to commencement of construction. Provisions of the General Permit require a site-specific plan to be developed that would address each construction component of the project. A Stormwater Pollution Prevention Plan (SWPPP) would be developed prior to any ground disturbance at the project site and would include practices to reduce erosion and surface water contamination during construction. The SWPPP would identify Best Management Practices (BMPs) to address erosion and discharge of construction pollutants as well as the location of such control measures.

Water quality BMPs identified in the SWPPP may include, but would not be limited to the following:

- Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months;

- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures;

- A spill prevention and countermeasure plan shall be developed which will identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used onsite. The plan will also require the proper storage, handling, use, and disposal of petroleum products;

- Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and to the immediate area required for construction. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction;

- Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of groundwater;

- Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events;

- Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff;

- Disturbed areas will be revegetated after completion of construction activities;

- All necessary permits and approvals shall be obtained;

- Sanitary facilities shall be provided for construction workers; and

- Hazardous materials shall be stored in appropriate and approved containers, maintaining required clearances, and handling materials in accordance with the applicable federal, state and/or local regulatory agency protocols.

Water quality standards will also be addressed through compliance with regulatory requirements described in permits, such as the Clean Water Act (CWA) Section 401 certification and the 1600 Streambed Alternation Agreement. The contractor will assign a water pollution control manager, who will train workers, and manage a project plan based on state and federal requirements, including Caltrans, to reduce potential impacts to water quality, soils, and other resources. The contractor(s) will perform water pollution control work in conformance with the requirements in the SWPPP and Water Pollution Control Program (WPCP) Preparation Manual and its addenda in effect on the day the Notice to Contractors is dated.

Conclusion: Compliance with regulatory measures would ensure that impacts to water quality are ***less than significant***.

Mitigation Measures: None are required.

Groundwater (b): The proposed project will require minimal amounts of water for dust control purposes during construction. All water required during construction of the project will be imported to the proposed project site from adjacent sources with existing entitlements. Upon completion, the proposed project would not draw water and therefore, not deplete existing groundwater supplies.

Conclusion: ***No significant impact*** will result.

Mitigation Measures: None are required.

Surface Water (c, d): The bridge on Road 148 crosses above Outside Creek, which is used for irrigation water, with water delivery controlled. Construction will occur during the fall months (September through December), so that most work can be conducted when no water is flowing in the creekbed. However, it is possible that work could extend into the wet season when water is present in the creek. The contractor will take necessary precautions to assure that water quality from demolition and construction does not impact the quality of surface water. Should water be present during this period, a temporary cofferdam or other stream diversion measure will be used to divert the stream. The stream diversion measure would limit the exposure of disturbed substrates to moving water and ensure that substantial erosion or siltation does not occur.

It is expected that the demolition and construction activity will be monitored by the CDFW, RWQCB and the USACE. The contractor will take necessary precautions to assure that water quality from the project construction does not impact the quality of surface water.

Conclusion: The proposed project would not substantially alter the existing drainage pattern at the completion of the project. Erosion, siltation, and/or increased runoff in Outside Creek would not result from the project.

Mitigation Measure #3.9.1: If construction or demolition is necessary during a time when the water is flowing within Outside Creek, a small cofferdam or other stream diversion measure would be constructed to divert the water.

Effectiveness of Measure: The impact would be ***less than significant with mitigation incorporated.***

Conclusion: The proposed project will not substantially alter the existing drainage pattern at the completion of the project. Erosion, siltation, and/or increased runoff in the Creek drainage will not result from the project. Impacts will be ***less than significant.***

Stormwater (e): Construction will not require the use of significant amounts of water that would result in an increase in runoff or result in flooding. Additionally, if needed, the contractor(s) will perform water pollution control work in conformance with the requirements in the "Storm Water Pollution Prevention Plan (SWPPP) and the Water Pollution Control Program (WPCP) Preparation Manual." Compliance with regulatory measures will ensure that stormwater impacts are less than significant.

Conclusion: Impacts will be ***less than significant***.

Mitigation Measures: None are required.

Flood Hazard (g, h): According to the Flood Insurance Rate Map, the project area is in Zone X, and is outside the 100-year flood zone. The project would not place any housing within the 100-year flood zone. No buildings or other structures would be placed in the project area which would impede or redirect the flood flows.

Conclusion: ***No impacts*** would occur.

Mitigation Measures: None are required.

Dam/Levee Failure (i): Outside Creek is an intensively managed feature that is used solely for irrigation storage and groundwater recharge purposes. Flows into Outside Creek are controlled by the USACE at Terminus Dam at Kaweah Lake. A dam failure is usually the result of neglect, poor design, or structural damage caused by a major event such as an earthquake. Dams must be operated and maintained in a safe manner, which is ensured through inspections for safety deficiencies, analyses using current technologies and designs, and taking corrective actions as needed based on current engineering practices.

As shown in Figure 8-1 of the Tulare County General Plan Background Report, the project site is within the Terminus Dam inundation area. The Tulare County Office of Emergency Services adopted a "*Disaster Preparedness Guide*" in 2011, which includes planning and response scenarios for seismic hazards, extreme weather conditions, landslides, dam failure and other flooding. The County is also implementing AlertTC, which is a mass notification system designed to keep Tulare County residents and businesses informed of emergencies. It should be noted that the project site lies within a two to four inundation zone, which would provide sufficient time for evacuation. In the event of dam failure, the USACE would follow the Emergency Action Plan developed for Terminus Dam. The EAP includes a notification flowchart, early detection systems, notification for warning and evacuation by state and local emergency management officials, steps to moderate or alleviate the effects of a dam failure, and inundation maps.

Conclusion: This impact would be ***less than significant***.

Mitigation Measures: None are required.

Seiche/Tsunami (j): There is no potential for seiche or tsunami due to the lack of a significant water body near the site. The likelihood for a mudflow will not be increased because of, or as a result of, construction over Outside Creek.

Conclusion: ***No impact*** would occur.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

3.10 LAND USE/PLANNING

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?	☐	☐	☐	☒

Response

Divide Established Community (a): The project will provide a more stable bridge across Outside Creek on Road 148. Development at this site would not result in any surrounding land use change, including the division of a community.

Conclusion: There is ***no impact***.

Mitigation Measures: None are required.

Conflicts with Land Use and Zoning (b, c): The project does not involve any change to, or conflict with, applicable land use plans, policies, or regulations. There are no habitat conservation plans applicable to the proposed project.

Conclusion: There is ***no impact***.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

3.11 MINERAL RESOURCES

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Response

Mineral Resources (a, b): No mining occurs in the Project area or in the nearby vicinity. The project site is currently disturbed and is used for roadway purposes and is not known to contain any significant mineral resources that would be of value to the region or residents of the state. Similarly, the site has not been noted in any plan for its potential to yield mineral resources and its development would not prohibit the exploration or loss of mineral resources.

Conclusion: ***No impacts*** to mineral resources will result.

Mitigation Measures: None are required.

3.12 NOISE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan 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?	☐	☐	☐	☒

Response

Permanent and Temporary Ambient Noise Levels (a, b, c, d): Roadway construction will create short-term noise above those deemed by the County as acceptable in noise-sensitive areas. Because the project area is not in a noise-sensitive area, County restrictions to noise levels above 60 dBL_{dn} do not apply. There are no Caltrans or FHWA standards for construction noise or vibration. One reference suggesting vibration standards is the Federal Transit Administration

(FTA) publication concerning noise and vibration impact assessment from transit activities. Although the FTA guidelines are to be applied to transit activities and construction, they may be reasonably applied to the assessment of the potential for annoyance or structural damage resulting from other activities. To prevent vibration annoyance in residences, a vibration velocity level of 80 VdB or less is suggested when there are fewer than 70 vibration events per day. A level of 100 VdB or less is suggested by the FTA guidelines to prevent damage to fragile buildings.

Typical construction equipment would include dump trucks, graders, rollers, concrete mixers and miscellaneous equipment (e.g., pneumatic tools, generators, and portable air compressors). Noise levels generated by this type of construction equipment at various distances from the noise source are shown in Table 3.12-1.

Table 3.12-1
Estimated Construction Noise Levels

	Typical Noise Level dBA (distance from source)		
Construction Equipment	50 feet	100 feet	1.0 mile
Pneumatic tools	85	79	45
Truck (e.g, dump, water)	88	82	48
Concrete mixer (truck)	85	79	45
Scraper	88	82	48
Bulldozer	87	81	47
Backhoe	85	79	45
Portable air compressor	81	75	41

Source: Federal Highway Administration, 2006.

Typical vibration levels at a reference distance of 25 feet and 100 feet are summarized in Table 3.12-2.

Table 3.12-2
Estimated Vibration Levels During Construction

Equipment	**PPV (in/sec)**		**RMS Velocity (VdB)**	
	@ 25 feet	**@ 100 feet**	**@ 25 feet**	**@ 100 feet**
Pile Driver (Impact)	0.6 – 1.5	0.08 – 0.19	104-112	86-94
Pile Driver (Sonic)	0.2 – 0.7	0.025 – 0.088	93-105	70-82
Bulldozer (Large)	0.09	0.011	87	69
Bulldozer (Small)	0.003	0.0004	58	40
Loaded Truck	0.08	0.01	86	68
Jackhammer	0.04	0.005	79	61

Source: Transit Noise and Vibration Assessment, FTA-VA-90-103006, May 2006

As discussed previously, there are no nearby sensitive receptors that would be impacted by the construction noise from the project. Excessive generation of groundborne vibration or groundborne noise would not occur during construction. The project is not a capacity increasing

project and would not increase the amount of traffic on Road 182; accordingly, there would be no permanent increase in ambient noise levels as a result of the project.

As described in Chapter Two - Project Description, a temporary traffic detour will be required during bridge construction. Traffic trips that normally occur on Road 148 will be re-routed as described in the Project Description, thus creating a potential increase in noise from vehicles traveling through the detour routes. While existing residents along the detour route may notice a slight change in vehicular activity, the increase in traffic trips will be temporary (90 days) and will not be significantly more than existing conditions.

Conclusion: Noise and vibration impacts would be ***less than significant***.

Mitigation Measures: None are required.

Airport Noise (e, f): The project site is not located near a public or private airport.

Conclusion: There would be ***no impacts***.

Mitigation Measures: None are required

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

3.13 POPULATION AND HOUSING

Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through 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?	☐	☐	☐	☒

Response

Population Growth and Displacement (a, b, c): Replacement of the bridge and associated roadway improvements are in response to the County's determination that the bridge does not meet current safety standards. Therefore, no additional housing would be required as a result of the project. There are no residences located at the project site, as such implementation of the project will not displace existing housing necessitating the construction of replacement housing elsewhere. Therefore, no additional housing would be required as a result of the project.

Conclusion: There would be ***no impact*** to population or housing.

Mitigation Measures: None are required.

3.14 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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 impact, in order to maintain acceptable service ratios for any of the public services:				
Fire protection?	☐	☒	☐	☐
Police protection?	☐	☒	☐	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Response

Fire Protection Services: Fire suppression support is provided by the Tulare County Fire Department in this unincorporated area of the County. The proposed project would result in the demolition and reconstruction of a bridge and would be constructed in accordance with local and state fire codes. The project is expected to improve the condition of the bridge, thereby providing improved structural integrity. Once constructed, the site will have adequate access for emergency traffic. As described in Chapter Two - Project Description, a temporary traffic detour will be required during bridge construction. Traffic trips that normally occur will be re-routed as described in the Project Description, thus creating a potential increase in emergency response times.

Conclusion: The project will not create a significant demand for additional fire services. Traffic detours during the construction phase of the project could create delays in response time for fire suppression.

Mitigation Measure #3.14.1: Prior to road closure the County will notify the Tulare County Fire and Sheriff's Department of the temporary (120 day) closure and of the anticipated detour route.

Effectiveness of Measure: The impact would be ***less than significant with mitigation incorporated.***

Police Protection: Law enforcement and police protection are provided by the Tulare County Sheriff's Department. As discussed in Section 3.12, Population and Housing, the proposed project would not induce substantial population growth. Impacts on police protection services related to population growth would be considered less than significant.

Conclusion: The project will not create a significant demand for additional police protection services. However, traffic detours during the construction phase of the project could create delays in response time for police services.

Mitigation Measure #3.14.1: Prior to road closure the County will notify the Tulare County Fire and Sheriff's Department of the temporary (120 day) closure and of the anticipated detour route.

Effectiveness of Measure: The impact would be ***less than significant with mitigation incorporated.***

School Facilities: Primary educational services are provided by the Tulare Unified School District in the City of Tulare. The proposed project does not contain any residential uses and would not directly induce population growth. Therefore, the proposed project would not result in the need for new or expanded school facilities. As such, no impacts would occur.

Conclusion: The project will result in ***no impact*** to school facilities.

Mitigation Measures: None are required.

Park Facilities: The proposed project does not include the construction of residential uses that would require new parks. Existing park facilities would not be impacted by this project.

Conclusion: There is ***no impact***.

Mitigation Measures: None are required.

Other Public Facilities: The proposed project does not propose residential, commercial, or industrial development. The project, therefore, would not result in increased demand for, or impacts on, other public facilities such as library services. Accordingly, no impact would occur.

Conclusion: There is ***no impact***.

Mitigation Measures: None are required

3.15 RECREATION

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒

Response

Recreational Facilities (a, b): The proposed project does not include the construction of residential uses and would not directly induce population growth. Therefore, the project would not cause physical deterioration of existing recreational facilities from increased usage or result in the need for new or expanded recreational facilities.

Conclusion: ***No impacts*** will occur.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.16 TRANSPORTATION/TRAFFIC				
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management or City 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) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Response

Conflict with plans or programs (a, b): The proposed project will not conflict with the County's General Plan Elements, or any applicable ordinance or policy regarding the circulation system. The project will not require construction of new streets or otherwise effect mass transit or bicycle paths. Road 148 is a paved, rural two land road. As such, it is not included in the Tulare County Level of Service standards analysis. The project will not increase the amount of traffic on Road 148, although the replacement bridge and access will be widened to meet federal and State standards.

Conclusion: Impacts would be ***less than significant***.

Mitigation Measures: None are required.

Air Traffic Patterns (c): The project site is not located in close proximity to an airport; therefore, the proposed project will not change or effect any air traffic patterns or airport land use plan.

Conclusion: There are ***no impacts***.

Mitigation Measures: None are required.

Hazards, Emergency Access and Parking (d, e): The project is expected to improve the condition of the bridge, thereby providing improved structural integrity. Once constructed, the site will have adequate access for emergency traffic. As described in Chapter Two - Project Description, a temporary traffic detour will be required during bridge construction. Traffic trips that normally occur on Road 148 will be re-routed as described in the Project Description, thus creating a potential increase in emergency response times. Parking for workers during construction will be provided in the staging area. Once construction has been completed, space for parking need not be provided in the project area.

Conclusion: Road closure and detours could create delays in response time for emergency vehicles during the construction phase of the project. Upon completion, the project will not increase use along the bridge or adjacent roadway.

Mitigation Measure #3.16.1: Prior to road closure, the County will notify the appropriate County agency(s) (fire, sheriff, ambulance, etc.) of the temporary (120 day) closure and of the anticipated detour route.

Effectiveness of Measure: The impact would be ***less than significant with mitigation incorporated.***

Alternative Transportation (f): The project site is located in a rural area where alternative transportation is not commonly used. No new facilities are proposed that would increase hazards or create barriers for pedestrians or bicyclists.

Conclusion: Because the project would not affect pedestrian or bicycle facilities, or the potential hazards of using such facilities, there would be ***no impact*** associated with pedestrian and bicycle hazards.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact

3.17 UTILITIES/SERVICE SYSTEMS

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new 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?	☐	☐	☒	☐

Response

Wastewater (a, b, e): During construction, portable restroom facilities would be provided by the construction contractor for the construction workers. Wastewater would be contained within portable toilet facilities and disposed of at an approved site according to regulations. The applicant would contract with a local service provider to dispose of the wastewater at an approved wastewater treatment plant. No other sources of wastewater are anticipated during the proposed project construction activities, and operation of the proposed project would not require the use of water or the generation of wastewater. The negligible amount of wastewater generated during construction would not affect the wastewater treatment facility's ability to meet their applicable wastewater treatment requirements. The proposed project would not require the construction of new water or wastewater treatment facilities. Water would be required for dust control purposes, but would be acquired from persons with existing entitlements to water, and no new entitlements will be required. All applicable local, state, and federal requirements and best management practices would be incorporated into construction of the project.

Conclusion: Impacts would be ***less than significant.***

Mitigation Measures: None are required.

Storm Water (c): The project will not require construction of new stormwater facilities. Construction will not require the use of significant amounts of water that would result in an increase in runoff or result in flooding. Additionally, the contractor(s) will perform water pollution control work in conformance with the requirements in the "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual" and its addenda in effect on the day the Notice to Contractors is dated. Compliance with regulatory measures would ensure that stormwater impacts are less than significant.

Conclusion: Impacts would be ***less than significant.***

Mitigation Measures: None are required.

Water Service (d): The project would require minimal amounts of water for dust control purposes during construction. During construction, all non-potable water required would be supplied by truck from existing entitlements. No new resources or entitlements will be needed.

Conclusion: The project would have a ***less than significant impact*** on the County's ability to serve existing water users.

Mitigation Measures: None are required.

Solid Waste (f, g): The project will include demolition of the current bridge. This activity is expected to generate construction debris including concrete, metal, and asphalt. Solid waste materials will be transported to the permitted landfill in Tulare County. In compliance with

state, federal, and local regulations, materials will be recycled or composted to the extent possible.

Conclusion: The proposed project would not generate the need for new solid waste facilities and the impacts would be ***less than significant***.

Mitigation Measures: None are required.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have the potential to: substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☒	☐
c) Have possible environmental effects that are individually limited but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects.	☐	☐	☒	☐
d) Include environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Response

Environmental/Habitat/Species Degradation (a): The proposed project has the potential to impact sensitive species during the construction phase. Risk of significant impact can be

reduced to less than significant by implementing measures as outlined under Section 3.4, so that no long-term affects to any species will occur. The proposed project is consistent with long-range plans for the County's transportation system and would not be inconsistent with existing environmental plans.

Conclusion: The project may have a ***potentially significant impact***.

Mitigation Measures: See Mitigation Measures in Section 3.4.

Effectiveness of Measures: Implementation of Mitigation Measures in Section 3.4 will reduce the impacts to less than significant.

Short-term/Long-term Goals (b): The project is in response to priorities for transportation related projects, as outlined by Tulare County Federal Transportation Improvement Program.

Conclusion: The project would have a ***less than significant impact***.

Mitigation Measures: None are required.

Cumulatively Considerable (c): CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc).

Conclusion: The project would have a ***less than significant impact.***

Mitigation Measures: None are required.

Effect on Human Beings (d): The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the project design to reduce all potentially significant impacts to less than significant.

Conclusion: The project would have a ***less than significant impact***.

Mitigation Measures: None are required.

SECTION FOUR

MITIGATION MONITORING AND REPORTING PROGRAM

SECTION FOUR – MITIGATION MONITORING AND REPORTING PROGRAM

State and local agencies are required by Section 21081.6 of the California Public Resources Code to establish a monitoring and reporting program for all projects which are approved and which require CEQA processing.

Local agencies are given broad latitude in developing programs to meet the requirements of Public Resources Code Section 21081.6. The mitigation monitoring and reporting program outlined in this document is based upon guidance issued by the Governor's Office of Planning and Research.

The mitigation monitoring and reporting program for the proposed project corresponds to mitigation measures outlined in the project Mitigated Negative Declaration (MND). The Program summarizes the environmental issues identified in the MND, the mitigation measures required to reduce each potentially significant impact and the agency or agencies responsible for monitoring and reporting on the implementation of the mitigation measures.

Mitigation Monitoring Plan

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
3.4 Biological Resources				
3.4-1: San Joaquin Kit Fox	Because there is the potential for San Joaquin kit foxes and American badger to occur on the project site, the USFWS Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (2011) shall be follow. The measures that are listed below have been excerpted from those guidelines and will protect San Joaquin kit foxes from direct mortality and from destruction of active dens and natal or pupping dens. The County shall determine the applicability of the following measures depending on specific construction activities and shall implement such measures when required. a. Pre-construction surveys shall be conducted no fewer than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the San Joaquin kit fox or American badger. Exclusion zones shall be placed in accordance with USFWS Recommendations using the following:	Tulare County	USFWS/CDFW	Less than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	<table><tr><td>Potential Den</td><td>50 foot radius</td></tr><tr><td>Known Den</td><td>100 foot radius</td></tr><tr><td>Natal/Pupping Den (Occupied and Unoccupied)</td><td>Contact U.S. Fish and Wildlife Service for guidance</td></tr><tr><td>Atypical Den</td><td>50 foot radius</td></tr></table> If dens must be removed, they must be appropriately monitored and excavated by a trained wildlife biologist. Replacement dens will be required. Destruction of natal dens and other "known" kit fox dens must not occur until authorized by USFWS. b. Project-related vehicles shall observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Nighttime construction shall be avoided, unless the construction area is appropriately fenced to exclude kit foxes. The area within any such fence must be determined to be uninhabited by San Joaquin Kit foxes prior to initiation of construction. Off-			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	road traffic outside of designated project areas shall be prohibited. c. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures listed below for contacting the USFWS and CDFW shall be implemented. d. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	subsequently buried, capped, or otherwise used or moved in anyway. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped. e. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from a construction or project site. f. No firearms shall be allowed on the project site. g. To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets shall be permitted on the project sites. h. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	or injure a kit fox, or who finds a dead, injured or entrapped individual. The representative's name and telephone number shall be provided to the USFWS and CDFW. i. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS and CDFW should be contacted for advice. j. Any contractor, employee(s), or military or agency personnel who inadvertently kills or injures a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist. The Sacramento Fish and Wildlife Office and CDFW will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, 2800 Cottage Way, Suite W2605, Sacramento, CA 95825-1846, and (916) 414-6620. The CDFW contact is Mr. Scott Osborn at 1416 9th Street, Sacramento, CA 95814, (916) 324-3564. k. (Employee Education Program). Prior to the start of construction at the proposed Project site the applicant will retain a qualified biologist to conduct a tailgate meeting to train all construction staff that will be involved with the proposed Project on all sensitive biological resources, including the San Joaquin kit fox, with the potential to occur on or near the Project site. This training will include a description of the sensitive biological resources and their habitat requirements; a report of the occurrence of any sensitive biological resources in the proposed Project area; an explanation of the status of the species and its protection under the endangered species act; and a list of the measures being taken to reduce impacts to the species			

<table>
<tr><th>Impact Number</th><th>Mitigation Measure</th><th>Implementing Agency</th><th>Monitoring Agency</th><th>Level of Significance After Mitigation</th></tr>
<tr><td></td><td>during proposed Project construction and implementation.</td><td></td><td></td><td></td></tr>
<tr><td>3.4.2: Swainson's Hawk</td><td>To avoid impacts to Swainson’s hawk, the following measures shall be implemented:

a. All trees which are suitable for Swainson’s hawk nesting that are within a ½ mile of construction activities shall be inspected for nests by a qualified biologist;

b. Swainson’s hawk surveys in accordance with the Swainson’s Hawk Technical Advisory Committee’s “Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley” will be conducted to determine whether Swainson’s hawks nest occur within a ½ mile of the project site by conducting surveys at the following intensities, depending upon dates of initiation of construction:

<table><tr><th>Construction start</th><th>Survey period</th><th>Number of surveys</th><th>Timing</th></tr><tr><td>1 January to 20 March</td><td>1 January to 20 March</td><td>1</td><td>All day</td></tr></table></td><td>Tulare County</td><td>CDFW</td><td>Less than Significant</td></tr>
</table>

Impact Number	Mitigation Measure				Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	21 March to 24 March	1 January to 20 March	1	All day			
		21 March to 24 March	Up to 3	Sunrise to 1000 and 1600 to sunset			
	24 March to 5 April	1 January to 20 March	1	All day			
		21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset			
	6 April to 9 April	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset			
		6 April to 9 April	Up to 3	Sunrise to 1000 and 1600 to sunset			
		1 January to 20 March	1 (if all 3 surveys are performed between 6 and 9 April, then this survey	All day			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation

		need not be conducted)	
10 April to 30 July	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset
	6 April to 20 April	3	Sunrise to 1200 and 1630 to sunset
31 July to 15 September	6 to 20 April	3	Sunrise to 1200 and 1630 to sunset
	10 to 30 July	3	Sunrise to 1200 and 1600 to sunset

A nest can be eliminated as a potential Swainson's hawk nest if another species of raptor is using the nest;

c. If Swainson's hawks are detected to be nesting in trees within ~~600 feet~~ ½ mile of the construction area, construction will not occur within this zone until after young Swainson's hawks have

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	fledged (this usually occurs by early June). The nest will be monitored by a qualified biologist to determine fledging date. If Swainson's hawks are found within the project area, the project site would be considered foraging habitat and compensation for foraging habitat would be required by CDFW at a ratio of 0.75 to 1 (0.75 acre for every 1.0 acre adversely affected);			
3.4.3: Raptors/ Migratory Birds	To protect breeding raptors and migratory birds, the following shall be implemented: If grading or other ground clearing or construction activities occur during the avian breeding season (February 1 through August 15), then pre-construction surveys should be conducted within ~~500 feet~~ ½ mile of the project site in habitats that provide the potential for nesting raptors and migratory birds to occur. The survey should be conducted no more than 14 days prior to initiation of those activities. If more than 14 days lapse between the time of the pre-construction survey and the start of these activities, another preconstruction survey must be completed. During the nesting period, raptor nests shall be avoided by ~~500~~	Tulare County	USFWS/CDFW	Less than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	~~feet~~ ½ mile, and other migratory bird nests shall be avoided by 250 feet. These distances will be clearly delineated with Environmentally Sensitive Area (ESA) fencing.			
3.4.4	The applicant will be required to obtain the following permits: Section 404 permit from the USACE, Section 401 permit from the Regional Water Quality Control Board (RWQCB), and a Section 1602 Streambed Alteration Agreement from CDFW. Impact acreage amounts will be determined when contract drawings are complete and can provide an accurate estimate as to the extent of proposed impacts to WOUS in result of project construction. If impacts to WOUS exceed 0.5 acres then an application for a Section 404 Individual Permit would be required prior to project approval.	Tulare County	USACE/RWQCB/CDFW	Less than Significant
3.4.5 Protected Bat Species	Although no signs of bats were discovered during the biological surveys conducted for the site, there still exists the possibility of protected bat species occurring at the site. The County will consult with CDFW to determine if additional surveys are warranted. If additional surveys are warranted, the County will work with	Tulare County	CDFW	Less than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	CDFW to determine the extent of such surveys and will conduct such surveys prior to commencement of project activities. The surveys may consist of some or all of the following: ▪ Using an appropriate combination of structure inspection, sampling, exit counts, and acoustic surveys, a biologist with expertise in bat biology and ecology and approved by the DFG shall survey the bridge structure and the surrounding area that may be impacted by the Project for bats. Surveys shall be conducted at the appropriate time of year to verify presence. If bats are found using the bridge, the biologist shall identify the bats to the species level, and evaluate the colony to determine its size and significance. The bat survey shall include: 1) the exact location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number of bats present at the time of visit (count or estimate); 3) each species of bat present shall be named (include how the species was identified); 4) the location, amount, distribution and age of all bat droppings			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	shall be described and pinpointed on a map; and 5) the type of roost; night roost (rest at night while out feeding) versus a day roost (maternity colony) must also be clearly stated. The results of the bat survey shall be submitted to the DFG prior to the initiation of construction activities. The qualifications of the biologist shall be submitted to the DFG for approval. ▪ If the bridge to be replaced houses a maternity colony of bats, construction activities shall not occur during the recognized breeding season of the bat species found to be occupying the structure (typically between March 1 to October 1 for most species, but can vary depending upon location, elevation, and site specific conditions). Under no circumstances shall construction activities result in harm or death to any adult or juvenile bats. ▪ If bats or their sign are documented during surveys, a qualified biologist shall submit a design for bat exclusion to the DFG for review and approval. The design for bat exclusion shall be			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	submitted to the DFG a minimum of 60 days in advance of the anticipated construction start date. ▪ A DFG approved biologist shall direct implementation of exclusionary devices designed to prevent bats from utilizing bridges before construction activities begin. Passage underneath the bridge (through the channel) shall not be impeded. An acceptable example is netting with 0.5-inch by 0.5-inch mesh or smaller. Exclusionary mesh netting must be thick plastic with no exposed overlap joints, applied tightly, regularly maintained, and shall only be installed seven (7) days (or earlier) after a survey has been conducted. If bats are found using any bridge, roost entrances shall be fitted with one-way doors that allow exits but prevent entrance for a period of several days to encourage bats to relocate. ▪ If surveys document that a bridge is occupied by a bat roost or colony, replacement bridges shall be constructed with similar structural features to encourage continued roosting by bats.			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	Replacement roosts should have comparable thermal stability and durability, the same or similar search image, and the same cryptic roosting conditions as the roosts they replace. The design for replacement roost structures shall be submitted to the DFG for approval a minimum of 60 days in advance of anticipated construction start date. ▪ If replacement roosts are constructed, qualified biologist with specific expertise in bat biology and ecology, and approved by DFG, shall monitor replacement roost structures for sign of bat use the first, third, and fifth year after construction completion. A report detailing the monitoring effort shall be submitted to DFG for review. ▪ No gasoline or diesel engines shall be stored or operated under any bridge. ▪ Activities shall be limited to the period of daylight hours; no night work is authorized unless otherwise agreed to by the DFG.			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
3.4.6 Colonial Birds / Swallows	▪ If construction schedule allows, construction activities shall be avoided during the nesting season. If any work is anticipated on the bridge during the nesting period, appropriate protection and avoidance measures that would prevent nesting on portions of the structure that will cause a conflict between performing necessary work and nesting swallows shall be implemented: - Prior to February 15, existing nests shall be removed or exclusionary devices such as netting shall be used. Weekly scalping, between February 15 and August 15, of partially completed nests is permitted to discourage nesting. - If new nests are built or existing nests become occupied, then any work that would interfere with or discourage swallows from returning to their nests will not be permitted. - Swallows shall be allowed to nest on portions of the bridge where conflicts during construction are not anticipated.	Tulare County	CDFW	Less than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	▪ Federal and State laws protect migratory birds, their occupied nests, and their eggs from destruction. The applicable Federal law is the Migratory Bid Treat Act (15 USC 703-711), 50 CFR Part 21, and 50 CFR Part 10. Protection under California Law is found in the Fish Game code Section 3503, 3513, and 3800. Any persons responsible for violating these laws may be arrested by a representative of the Department of the Interior or a California Department of Fish and Game warden. Any person found guilty shall be fined up to $10,000 or serve a six-month imprisonment, or both.			
3.5 Cultural Resources				
3.5.1	Although there is no recorded evidence of historic or archaeological sites on the project site, there is the potential during project-related excavation and construction for the discovery of cultural resources. Tulare County shall incorporate into the construction contract(s) for the project a provision that includes the following measures:	Tulare County	Tulare County	Less than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	▪ Before initiation of construction or ground-disturbing activities associated with the project, the project proponent for all project phases shall require all construction personnel to be alerted to the possibility of buried cultural resources, including historic, archeological and paleontological resources; ▪ The general contractor and its supervisory staff shall be responsible for monitoring the construction project for disturbance of cultural resources; and ▪ If a potentially significant historical, archaeological, or paleontological resource, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains or trash deposits are encountered during subsurface construction activities (i.e., trenching, grading), all construction activities within a 100-foot radius of the identified potential resource shall immediately cease until a qualified archaeologist evaluates the item for its significance and records the item on the appropriate			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	State Department of Parks and Recreation (DPR) forms before construction related activities are allowed to resume. The archaeologist shall determine whether the item requires further study. If, after the qualified archaeologist conducts appropriate technical analyses, the item is determined to be significant under California Environmental Quality Act, the archaeologist shall recommend feasible mitigation measures, which may include avoidance, preservation in place or other appropriate measure, as outlined in Public Resources Code section 21083.2. The County shall implement said measures.			
3.5.2	Tulare County will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed project (i.e., trenching, grading), all excavations within 100 feet of the find shall be immediately temporarily suspended until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The	Tulare County	Tulare County	Less than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	paleontologist shall notify the appropriate representative at the County, who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the County shall implement those measures, which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code section 21083.2.			
3.8 Hazards/Hazardous Materials				
3.8.1	Prior to issuance of demolition permits for the existing bridge, a hazardous materials bridge survey shall be conducted. The survey shall be conducted for asbestos, lead-based paint, and treated wood. Additionally, if soil disposal is proposed, soil sampling shall be conducted prior to disposal. The report recommendations shall be incorporated into construction contract provisions. At a minimum, provisions/specifications should be included in the contractor's construction package that addresses lead, asbestos-containing materials, and/or pressure treated lumber for the purpose of worker and public safety.	Tulare County	Tulare County	Less than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
3.8.2	Construction contractors shall ensure that any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.	Tulare County	Tulare County	Less than Significant
3.8.3	Construction contractors shall ensure that during construction, staging areas, building areas, and/or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fuel for combustion. To the extent feasible, the contractor shall keep these areas clear of combustible materials to maintain a firebreak.	Tulare County	Tulare County	Less than Significant
3.9 Hydrology/Water Quality				
3.9.1	If construction or demolition is necessary during a time when the water is flowing within Outside Creek, a small cofferdam or other stream diversion measure would be constructed to temporarily divert the water.	Tulare County	Tulare County	Less than Significant
3.14 Public Services				
3.14.1	Prior to road closure the County will notify the Tulare County Fire and Sheriff's Department of the temporary (120 day) closure and of the anticipated detour route.	Tulare County	Tulare County	Less than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
3.16 Traffic/Transportation				
3.16.1	Prior to road closure, the County will notify the appropriate County agency(s) (fire, sheriff, ambulance, etc.) of the temporary (120 day) closure and of the anticipated detour route.	Tulare County	Tulare County	Less than Significant

Notes: USFWS = U.S. Fish and Wildlife Service, CDFW = California Department of Fish and Wildlife, ACOE = U.S. Army Corps of Engineers, RWQCB = California Regional Water Quality Control Board, Caltrans = California Department of Transportation

SECTION FIVE

REFERENCES

SECTION FIVE – REFERENCES

- California Department of Natural Resources, Rural Land Mapping Edition, Tulare County Important Farmland 2010 Map. Accessed December 2011. ftp:ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/tul10_no.pdf.

- California Department of Toxic Substances, Cortese List Data Resources, http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm. Accessed December 2011.

- California Environmental Quality Act (CEQA) Statues (Public Resources Code Section 21000, et. seq.)

- Caltrans, Division of Local Assistance, 2010/11-2015/16 Highway Bridge Program.

- *County of Tulare, (Proposed) General Plan 2030*

- *County of Tulare (Proposed) Final Environmental Impact Statement for the Proposed General Plan 2030.*

- Migratory Bird Treaty Act of 1918, codified at U.S.C. Section 703-712, 1918

- *San Joaquin Valley Air Pollution Control District, "Guide for Assessing and Mitigating Air Quality Impacts,"* 2002

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

- U.S. Department of Agriculture, *Western Tulare County Soils Survey*, November 1999.

- U.S. Fish and Wildlife Service, *Standard Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance*, June 1999.

SECTION SIX

LIST OF PREPARERS

SECTION SIX – LIST OF PREPARERS

Quad Knopf, Inc.

Travis Crawford, Senior Environmental Planner

Elena Nuño, Senior Associate Planner

Ginger White, Senior Associate Planner

Tim Madison, Assistant Biologist and GIS Technician

Vanessa Williams, Business Services Associate

APPENDICES

Appendix A

Air Quality and Greenhouse Gas Emissions Modeling

Quad Knopf

TECHNICAL MEMORANDUM

Date: May 18, 2012 **Project No.:** 110170

To: Travis Crawford, AICP, Project Manager

From: Elena Nuno, Senior Associate Planner

Subject: Outside Creek Air Quality Analysis

Project Description

The County of Tulare plans to replace an existing, paved, two-lane bridge located on Road 148 crossing Outside Creek. The existing bridge is a 45-foot long and 20.5 foot wide, 3-span DT lumber bridge with wooden piers. The existing wooden deck will be removed and replaced with a box culvert which will be up to 35-feet wide and 45-feet long (depending on final design). The project will include 15-25 feet of concrete channel lining and up to 15 feet of rock slope protection. Fifteen-foot long, warped wingwalls that conform to the existing railing would likely block existing canal bank access roads, requiring additional right of way or easements. The bridge will conform to the existing approach road width of 20 feet. The county intends to adjust the roadway alignment within the right of way, and will improve the Road 148 northern approach to the intersection with Avenue 224 (approximately 700 feet), and the southern approach up to 400 feet south of the bridge. If funding is not available to make these improvements, the project will be scaled back, however to provide a worst-case scenario the maximum acreage of disturbance was included in the analysis.

Construction of the bridge is expected to begin in mid-September of 2012 and be completed by mid-December. The bridge will not include additional travel lanes.

Methodology and Assumptions

The Sacramento Metropolitan Air Quality Management District's Road Construction model was used to estimate emissions from the infrastructure improvements. (Note that this model was used because no comparable model has been issued by the SJVAPCD, however the SJVAPCD approves of the model's usage for linear construction project.). The Roadway Construction Emissions Model is a Microsoft Excel worksheet available to assess the emissions of linear construction projects.

The following assumptions were included in the analysis of the project:

Construction Start Year:	2012
Construction Length:	3 months
Project Type:	Bridge Construction
Soil Type:	Weathered Rock-Earth
Project Length:	45 feet

Total Project Area: 1,350 square feet (0.031 acres)
Water Trucks Used: Yes

The following assumptions were included in the analysis of the widening of the Roadway Approaches:

Construction Start Year: 2012
Construction Length: 3 months
Project Type: Road Widening
Soil Type: Weathered Rock-Earth
Project Length: 1,180 feet
Total Project Area: 41,300 square feet (0.95 acres)
Water Trucks Used: Yes

Results

The estimated annual construction emissions are shown below. If construction were to occur in a later years, the construction emissions would be less than the 2012 estimates, as regulatory measures come into effect that require cleaner construction equipment.

Table 1
Construction Emissions (2012)

	Emissions (tons)					
	ROG	**NOx**	**PM10**	**PM2.5**	**CO_2**	**$MTCO_2$**
Bridge Replacement	0.1	1.0	0.1	0.0	110.2	100
Roadway Approaches	0.1	0.9	0.1	0.1	101.7	92
Total	0.2	1.9	0.2	0.1	211.9	192
SJVAPCD Theshold	10	10	15	15	N/A	N/A
Significant?	No	No	No	No	No	No

Note: MTCO2 = Metric Tons CO2 (English tons x 0.9072)
Source: Sacramento Metropolitan Road Construction Model, Version 6.3.2

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> Outside Creek Bridge Replacement Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	3.5	15.4	31.3	1.3	1.3	0.0	1.2	1.2	0.0	3,135.0
Grading/Excavation	4.5	20.0	38.0	1.8	1.8	0.0	1.6	1.6	0.0	4,283.1
Drainage/Utilities/Sub-Grade	3.4	14.4	27.2	1.4	1.4	0.0	1.3	1.3	0.0	2,905.9
Paving	2.0	7.8	12.0	1.1	1.1	-	1.0	1.0	-	1,125.9
Maximum (pounds/day)	4.5	20.0	38.0	1.8	1.8	0.0	1.6	1.6	0.0	4,283.1
Total (tons/construction project)	0.1	0.5	1.0	0.1	0.1	0.0	0.0	0.0	0.0	110.2

Notes:	
Project Start Year ->	2012
Project Length (months) ->	3
Total Project Area (acres) ->	0
Maximum Area Disturbed/Day (acres) ->	0
Total Soil Imported/Exported (yd^3/day) ->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> Outside Creek Bridge Replacement Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	1.6	7.0	14.2	0.6	0.6	0.0	0.5	0.5	0.0	1,425.0
Grading/Excavation	2.0	9.1	17.3	0.8	0.8	0.0	0.7	0.7	0.0	1,946.9
Drainage/Utilities/Sub-Grade	1.5	6.5	12.4	0.6	0.6	0.0	0.6	0.6	0.0	1,320.9
Paving	0.9	3.6	5.5	0.5	0.5	-	0.4	0.4	-	511.8
Maximum (kilograms/day)	2.0	9.1	17.3	0.8	0.8	0.0	0.7	0.7	0.0	1,946.9
Total (megagrams/construction project)	0.1	0.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	99.9

Notes:	
Project Start Year ->	2012
Project Length (months) ->	3
Total Project Area (hectares) ->	0
Maximum Area Disturbed/Day (hectares) ->	0
Total Soil Imported/Exported (meters^3/day) ->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> Outside Creek Bridge Roadway Approaches				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust	
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	PM2.5 (lbs/day)	PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	3.7	16.1	31.8	3.7	1.3	2.4	1.7	1.2	0.5	3,207.9
Grading/Excavation	4.0	18.4	32.3	4.0	1.6	2.4	2.0	1.5	0.5	3,623.2
Drainage/Utilities/Sub-Grade	3.6	15.0	27.7	3.8	1.5	2.4	1.8	1.3	0.5	2,978.8
Paving	2.2	8.5	12.6	1.1	1.1	-	1.0	1.0	-	1,198.9
Maximum (pounds/day)	4.0	18.4	32.3	4.0	1.6	2.4	2.0	1.5	0.5	3,623.2
Total (tons/construction project)	0.1	0.5	0.9	0.1	0.0	0.1	0.1	0.0	0.0	101.7

Notes:

Project Start Year ->	2012
Project Length (months) ->	3
Total Project Area (acres) ->	1
Maximum Area Disturbed/Day (acres) ->	0
Total Soil Imported/Exported (yd^3/day) ->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> Outside Creek Bridge Roadway Approaches				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust	
Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	PM10 (kgs/day)	PM10 (kgs/day)	PM10 (kgs/day)	PM2.5 (kgs/day)	PM2.5 (kgs/day)	PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	1.7	7.3	14.5	1.7	0.6	1.1	0.8	0.6	0.2	1,458.2
Grading/Excavation	1.8	8.3	14.7	1.8	0.7	1.1	0.9	0.7	0.2	1,646.9
Drainage/Utilities/Sub-Grade	1.6	6.8	12.6	1.7	0.7	1.1	0.8	0.6	0.2	1,354.0
Paving	1.0	3.9	5.7	0.5	0.5	-	0.5	0.5	-	544.9
Maximum (kilograms/day)	1.8	8.3	14.7	1.8	0.7	1.1	0.9	0.7	0.2	1,646.9
Total (megagrams/construction project)	0.1	0.5	0.8	0.1	0.0	0.1	0.1	0.0	0.0	92.3

Notes:

Project Start Year ->	2012
Project Length (months) ->	3
Total Project Area (hectares) ->	0
Maximum Area Disturbed/Day (hectares) ->	0
Total Soil Imported/Exported ($meters^3$/day) ->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Appendix B

Biological Resources Report

Natural Environment Study

(Minimal Impacts)

Outside Creek Bridge Replacement Project

Outside Creek

Road 148

District 6

Tulare County, California

May, 2012

STATE OF CALIFORNIA
Department of Transportation
Tulare County Resource Management Agency (RMA)

Prepared By: Title: Quad Knopf
Phone Number: (559) 733-0440
Office Name: Quad Knopf
District/Region: Visalia, California

Recommended
for Approval By: _____ Date: _____
District Biologist:
Phone Number
Office Name
District/Region

Approved By: _____ Date: _____
District Environmental Branch Chief:
Phone Number
Office Name
District/Region

CALIFORNIA DEPARTMENT OF TRANSPORTATION

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TABLES AND FIGURES

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Tables

Figures

1. SUMMARY

Tulare County plans to replace Bridge Number 46C-0186 on Road 148, crossing Outside Creek. The methods used to evaluate the biological resources on the project site and determine potential impacts to those resources caused by the bridge replacement include:

- Searching databases to obtain existing information on the site and surrounding area;
- Characterizing vegetation associations and habitat conditions present on the project site; and
- Inventorying plant and wildlife species on the project site, and assessing the potential for special status species occurrences.

The project site is located in the eastern San Joaquin Valley at an elevation of approximately 300 feet above mean sea level (MSL) near the city of Tulare in western Tulare County, California. It is within the Cairns Corner USGS 7.5-minute quadrangle, and is located in Sections 14 and 15, Township 20 South, and Range 25 East of the Mount Diablo Base and Meridian (MDBM).

Three sensitive natural communities, 13 special-status plant species, and 14 special status wildlife species were listed by the California Natural Diversity Database (CNDDB), U.S. Fish and Wildlife Service (USFWS) list, and California Native Plant Society (CNPS) database as potentially occurring within the nine U.S. Geological Survey (USGS) 7.5-minute quadrangles surrounding the project site. Quad Knopf biologists Jeremy Wiggins, Belen Perez, and Tim Madison conducted a focused biological survey of the site on February 29, 2012. The project site was almost entirely composed of bare dirt with sparse, non-native vegetation. There was no area of natural vegetation within the vincinity of the site. No special status species were observed during the survey, but the San Joaquin kit fox and American badger could potentially occur on the project site as transiant foragers.

There is no riparian vegetation or other sensitive vetgetative community present and no habitat capable of supporting resident sensitive species exists on the site. Thus, the project should have no impact to any special status species or communities.

Construction activities are expected to impact up to two acres of existing road north and south of the bridge and bare ground just to the southwest of the bridge. There are no trees to be removed or riparian areas to be impacted. Although no special status species were observed near the project site, impacts to transient San Joaquin kit foxes, American badger or breeding raptors and migratory birds could potentially occur. Standard avoidance measures for San Joaquin kit foxes (also applicable to American badger) and breeding birds should be implemented as project components.

2. INTRODUCTION

The County of Tulare plans to replace an existing, paved, two-lane bridge located on Road 148, crossing Outside Creek (Bridge No. 46C-0186) which has a current sufficiency rating of 56.5. The existing bridge is a 45 feet long and 20.5 feet wide, 3-span, treated DF timber bridge. Because of the narrow roadway width the bridge is functionally obsolete. Because the bridge is constructed of timber, regulations do not permit widening of the existing structure. The bridge will be removed and replaced with a box culvert which will be up to 35-feet wide and 45-feet long (pending final design). The project will include 15 to 25 feet of concrete channel lining and up to 15 feet of rock slope protection. The bridge is proposed to include 15-foot long warped wingwalls that conform to the existing channel banks. Pursuant to Caltrans standards, the bridge is required to have a rigid railing. Approach guard railing would likely block existing canal bank access roads, requiring additional right of way or easements. Railing should meet crash test requirements. The bridge will conform to the existing approach road width of 20 feet. It will not include additional travel lanes. The most economical alternative for continued access during construction is a road closures and a traffic detour to either side of the bridge. The roadway approaches to the north and south of the bridge may be offset six (6) feet to the east in order to line up correctly with the bridge. . The length of the roadway improvements may extend north from the bridge up to Avenue 224 (approximately 700 feet) and approximately 400 feet south of the bridge. Work will be conducted between mid-September and mid-December of 2012.

3. STUDY METHODS

The methods used to evaluate the biological resources on the project site and determine potential impacts to those resources caused by removal and replacement of the bridge include:

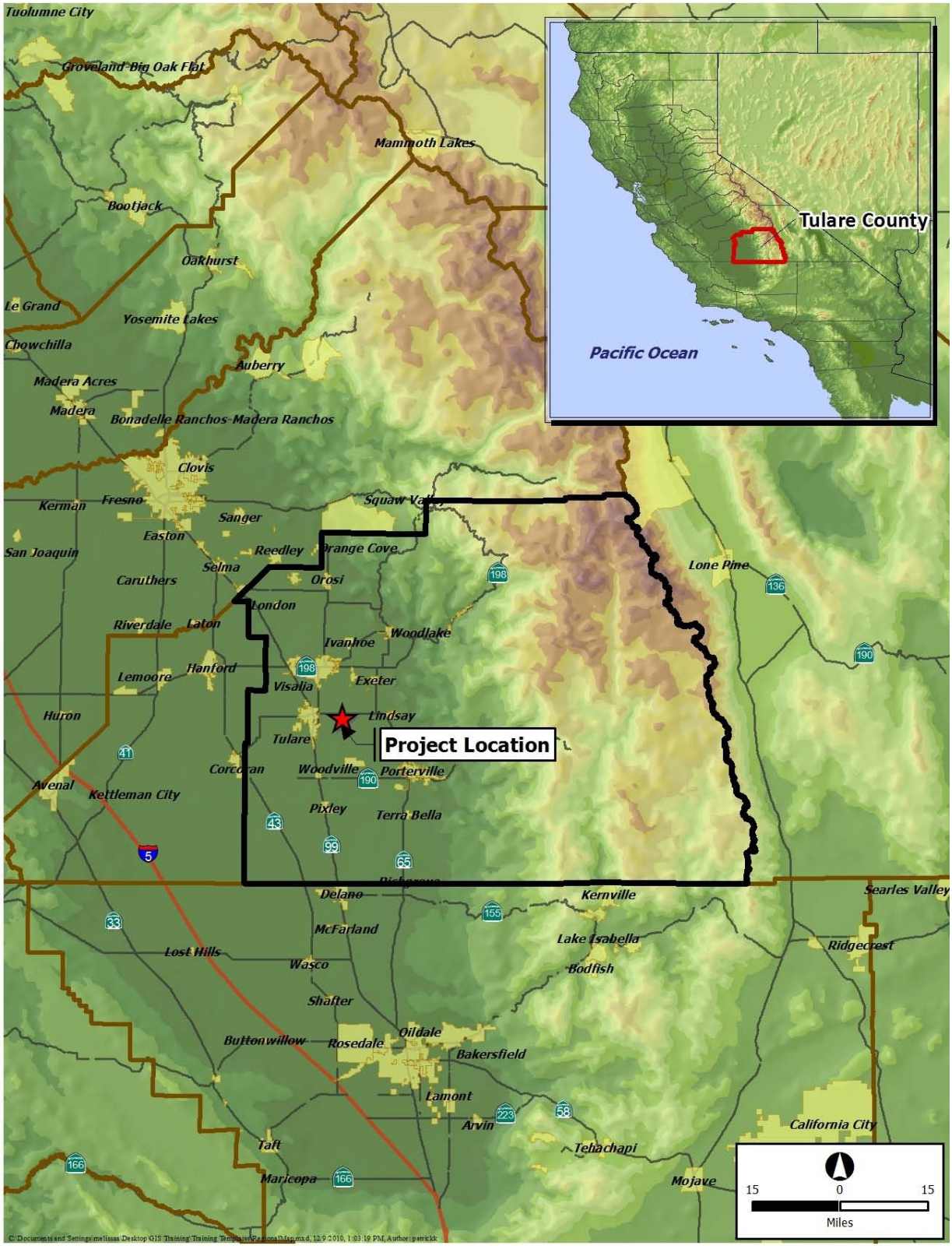
- Searching databases to obtain existing information on the site and surrounding area;
- Characterizing vegetation associations and habitat conditions present on the project site; and
- Inventorying plant and wildlife species on the project site, and assessing the potential for special status species occurrences.

Prior to conducting field work, a query of the CNDDB (CNDDB, CDFG 2012) was conducted to obtain a list of sensitive natural communities and special status species known to potentially occur in the region of the project site. The query included the following nine USGS 7.5-minute topographic quadrangles that surround the project site:

- Cairns Corner
- Exeter
- Rocky Hill
- Tulare
- Tipton

- Visalia
- Lindsay
- Woodville
- Porterville

A query of the CNPS database (CNPS 2012) was conducted for the same quadrangles to provide information on additional plant species of concern known to potentially occur within the project site vicinity. A similar database search for the same area was also conducted using the USFWS list (USFWS 2012a) of federally-listed species known to occur in the project site vicinity. The list was augmented with animals designated as "Fully Protected" by the California Department of Fish and Game (CDFG) Code Sections 5050 (Fully Protected reptiles and amphibians), 3511 (Fully Protected birds), and 4700 (Fully Protected mammals). Relevant recovery plans and listing packages for threatened and endangered species were reviewed to determine recovery strategies and assess the potential for Critical Habitat to occur on or in the vicinity of the project site. Only those sensitive natural communities and special-status species with the potential to occur on the project site are considered in this report.



Quad Knopf	REGIONAL LOCATION OF THE OUTSIDE CREEK BRIDGE REPLACEMENT PROJECT, TULARE COUNTY, CA	Figure 1

Quad Knopf	LOCAL VICINITY OF THE OUTSIDE CREEK BRIDGE REPLACEMENT PROJECT, TULARE COUNTY, CA	Figure 2

The National Wetlands Inventory (NWI); USFWS 2012b) and Federal Emergency Management Agency (FEMA 2012) flood zone databases were additionally reviewed. Soils on the project site and vicinity were researched using maps from the Natural Resources Conservation Service (NRCS; USDA Web Survey 2012). These sources provide detailed information of climatic conditions and edaphic conditions that could potentially support various sensitive species.

Quad Knopf biologists Jeremy Wiggins, Belen Perez, and Tim Madison conducted a focused biological survey of the project site on February 29, 2012. The survey included all areas within 200 feet of the project site. This survey was conducted to:

- Characterize vegetation associations and habitat conditions present on the project site;
- Inventory plant and wildlife species on the project site; and
- Assess the potential for special status species to occur on or near the project site.

Vegetative communities present on the project site were classified using the Holland system (Holland 1986). This classification system categorizes communities according to the dominant species present. Plant species were identified using the nomenclature of the *Jepson Manual: Higher Plants of California* (Hickman 1993). Community boundaries and the ordinary high water mark (OHWM) of Outside Creek were mapped using a Trimble GeoXH Global Positioning System (GPS) unit with sub-meter accuracy.

A determination of the potential for special status plant and wildlife species to occur on the project site was made based upon site conditions including the presence of vegetative communities, soil types, existing levels of disturbance; and the known elevation range, habitat affinities, and other natural history information available for each of the potentially occurring species.

4. ENVIRONMENTAL SETTING

4.1. Description of the Existing Biological and Physical Conditions

The project site is located in the eastern San Joaquin Valley at an elevation of approximately 300 feet above mean sea level (MSL) near the city of Tulare in western Tulare County, California. It is within the Cairns Corner USGS 7.5-minute quadrangle, and is located in Sections 14 and 15, Township 20 South, and Range 25 East of the Mount Diablo Base and Meridian (MDBM).

The region has hot, dry summers with cool, rainy winters. Average monthly temperatures vary from a low of approximately 36 degrees Fahrenheit in December to a high of approximately 94 degrees Fahrenheit in July. Precipitation in the vicinity occurs mainly between October and April, with an average annual rainfall of 12.21 inches. The wettest month of the year is usually March, with an average rainfall of 2.15 inches. Historically, the project region was a dry plain primarily vegetated with California Prairie and oak forests. Most of the native habitat in the

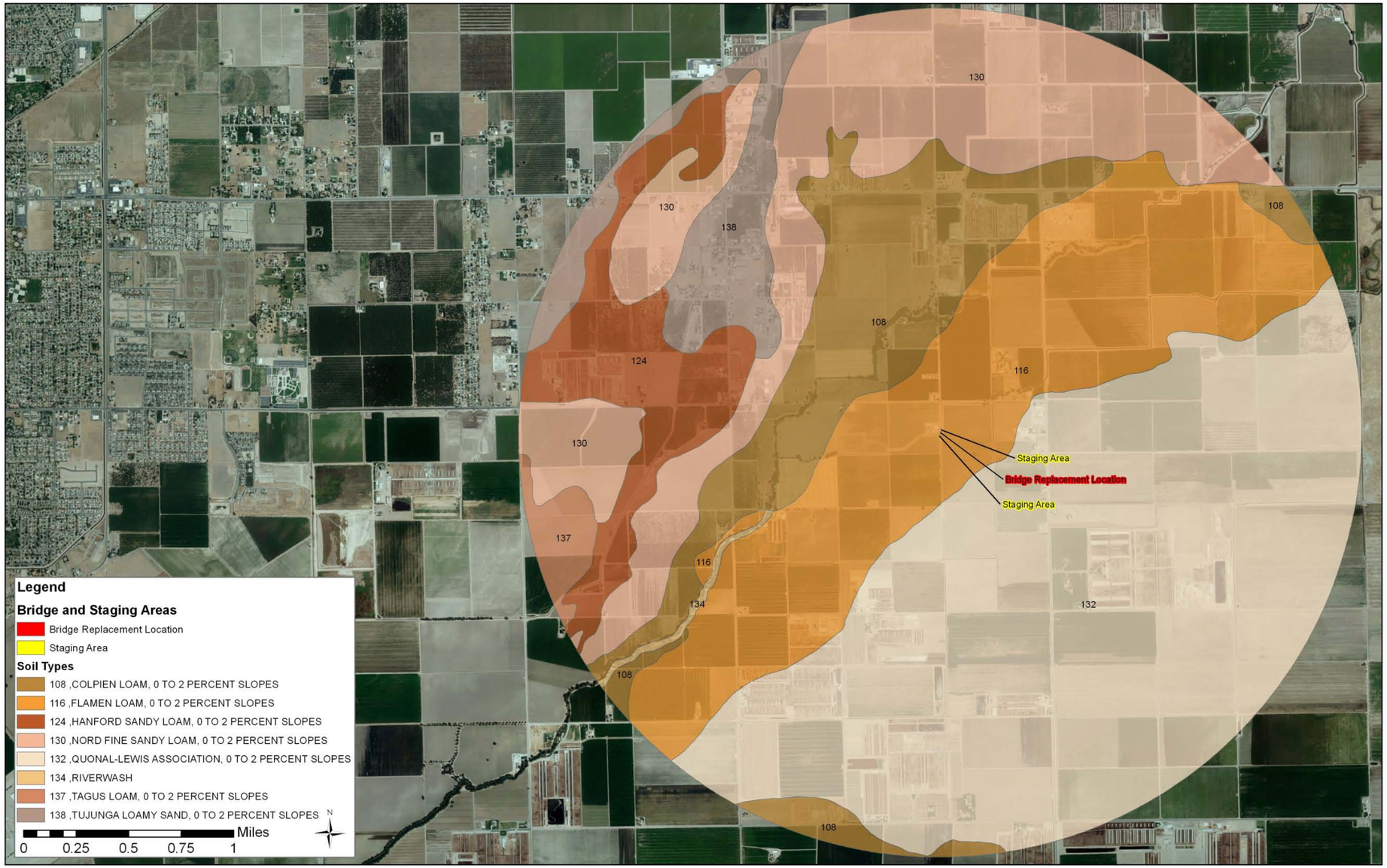
project vicinity has since been converted to agricultural production, pastures, residences, and associated infrastructure (e.g., highways and transmission lines).

Eight soil types occur within 10 miles of the project site (Figure 3). The soil types occur in bands that generally run southwest to northeast. The soil types are, from west to east, Tujunga loamy sand, Hanford sandy loam, Tagus loam, Nord fine sandy loam, Colpien loam, riverwash, Flamen loam, and Quonal-Lewis association. The project site is not within a 100 year flood zone (Figure 4). The nearest wetland identified by the NWI is 0.81 mile south-southeast of the project site (Figure 5).

Intensive agricultural development is the dominant land use in the project vicinity. The area to the northwest of the project site is a rural residence , and the area to the northeast, east, and southeast are all disked fields. To the southwest, west, and northwest of the site are orchards. The site itself is intensively managed for weed control and has little to no vegetation cover. Outside Creek's water level is controlled for irrigation, its location has been modified to skirt agricultural fields, and its banks have been channelized and are frequently managed to control weeds and erosion. No sensitive species are located on or in the vincinity of the site; the nearest historical record of a sensitive species is approximately three miles to the south.

4.2 Regional Species and Habitats of Concern

There are numerous historical occurrences of sensitive natural communities and special status species within 10 miles of the project site (Appendix B). Sensitive natural communities include those vegetation types that are unique, have a relatively limited distribution, or are of relatively limited distribution. Special status species include those that have been afforded special status and/or recognition by federal and State resource agencies, as well as private conservation organizations (e.g. CNPS).



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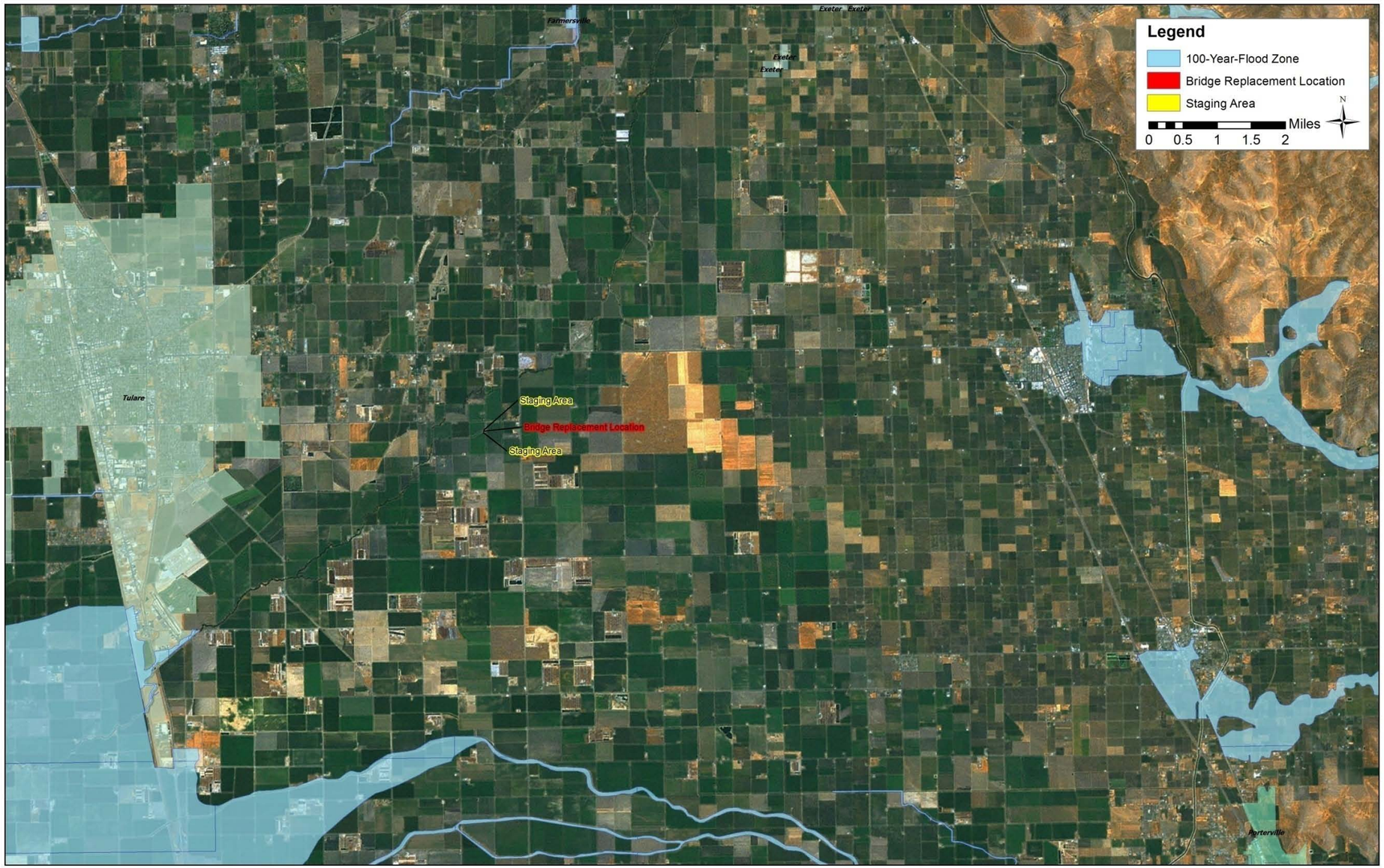
Quad Knopf

SOIL MAPPING UNITS ON THE OUTSIDE CREEK BRIDGE REPLACEMENT PROJECT, TULARE COUNTY, CA

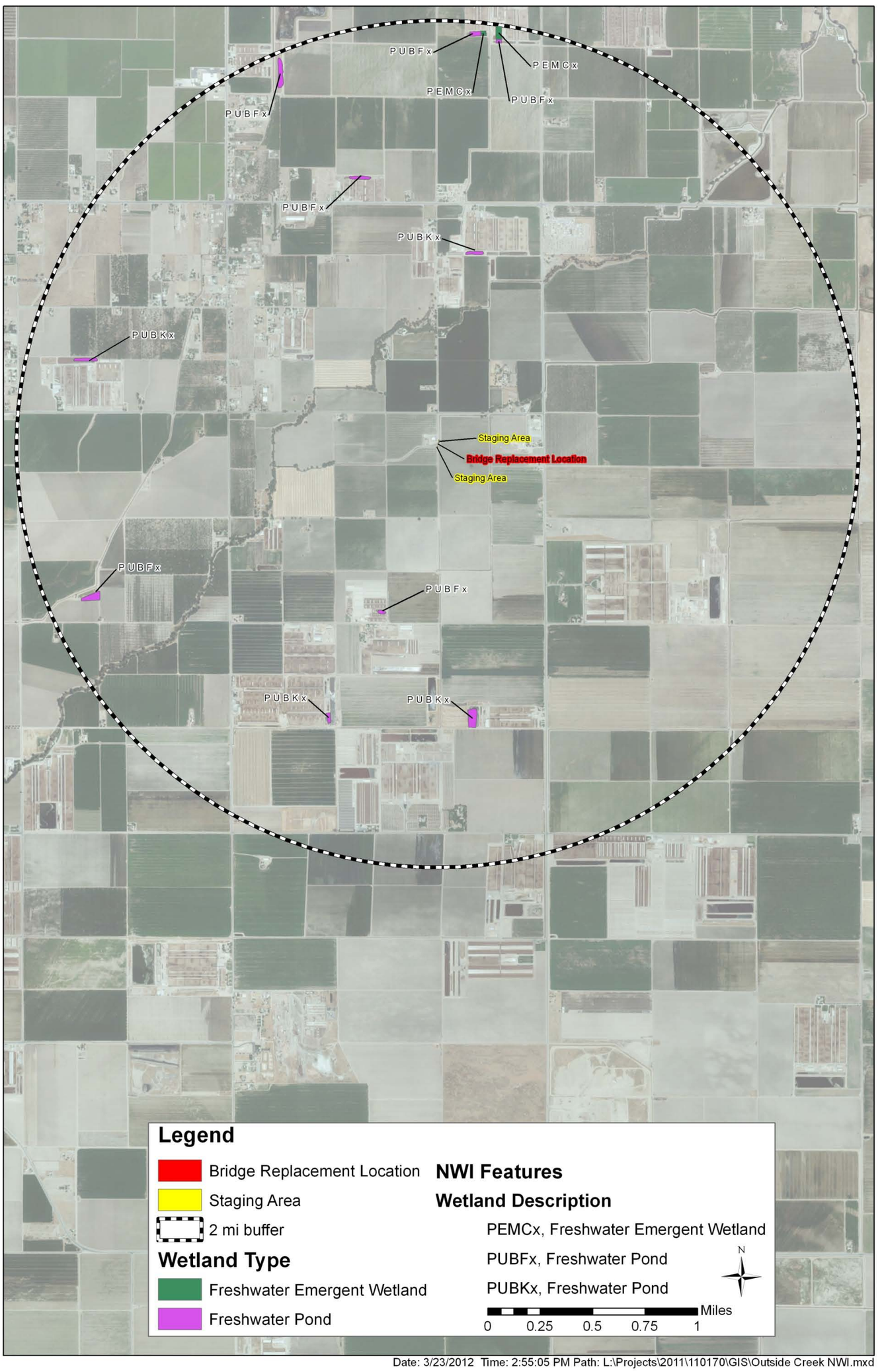
Figure 3



Quad Knopf

100-YEAR FLOOD PLAIN IN THE VICINITY OF THE
OUTSIDE CREEK BRIDGE REPLACEMENT PROJECT, TULARE COUNTY, CA

Figure
4



Quad Knopf

KNOWN WETLANDS ON AND IN THE VICINITY OF THE OUTSIDE CREEK BRIDGE REPLACEMENT PROJECT, TULARE COUNTY, CA

Figure 5

SENSITIVE NATURAL COMMUNITIES

Three sensitive natural communities (Great Valley Valley Oak Riparian Forest, Northern Claypan Vernal Pool, and Valley Sacaton Grassland) are known to occur in the project region, but only the Great Valley Valley Oak Riparian Forest and Valley Sacaton grassland have been recorded within ten miles of the project site (Figure 6). There is one occurrence of Valley Sacaton Grassland approximately nine miles east-northeast of the project site and one occurrence of Great Valley Valley Oak Riparian Forest approximately ten miles east-northeast of the project site.

SPECIAL-STATUS PLANTS

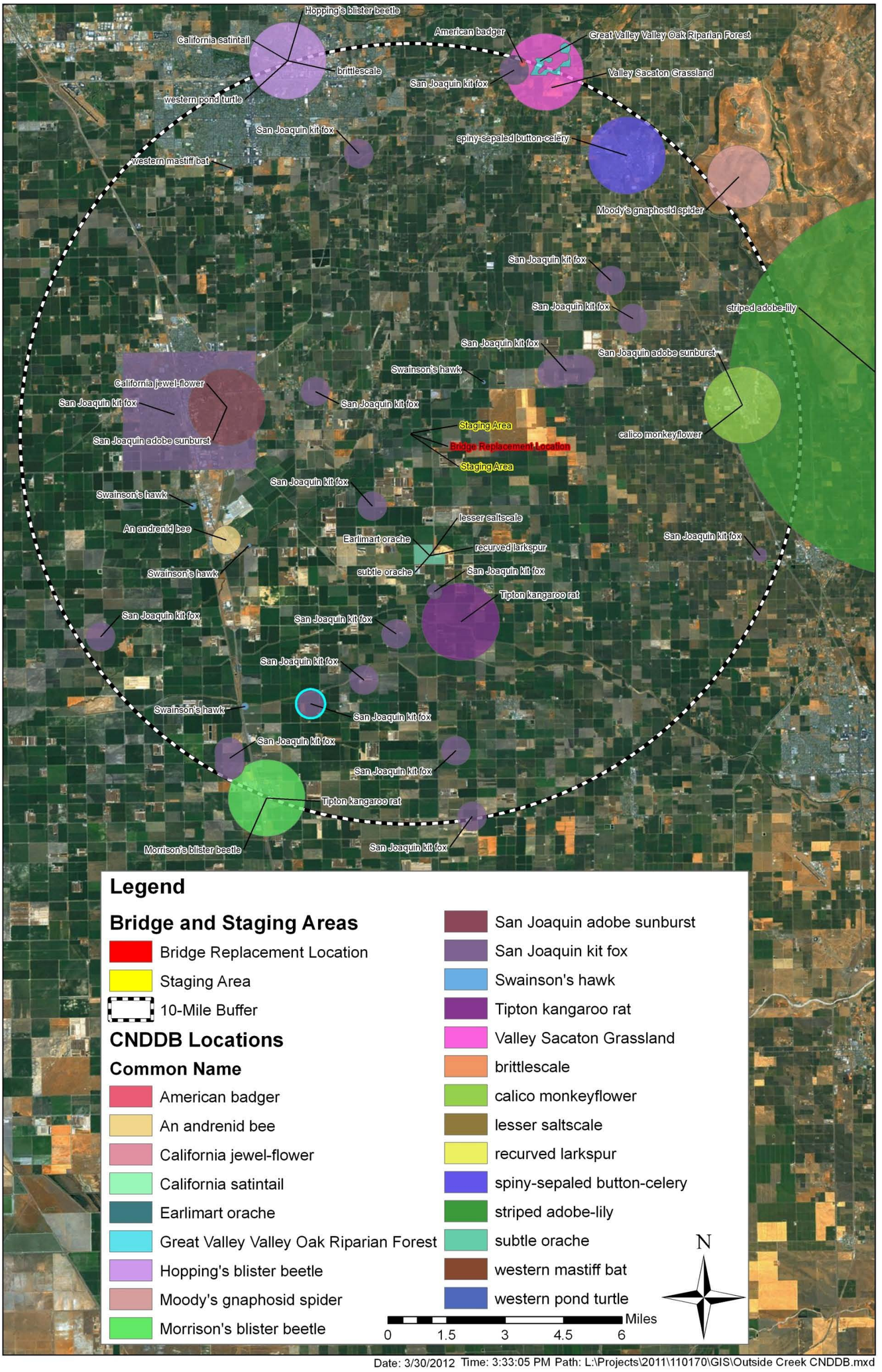
Thirteen special-status plant species historically occurred in the project region. Only 11 of these species have been recorded within 10 miles of the project site (Figure 6). These include:

- California jewel-flower
- California satintail
- Earlimart orache
- San Joaquin adobe sunburst
- brittlescale
- calico monkeyflower
- lesser saltscale
- recurved larkspur
- spiny-sepeled button-celery
- striped adobe-lily
- subtle orache

None of these plants were observed on the project site and there is no suitable habitat present that would support any of these species. The stream itself has been channelized and all other areas of the project site has been heavily impacted by agricultural and development activities. The site is mostly bare dirt and there is no riparian habitat.

SPECIAL STATUS WILDLIFE

The database searches identified 14 special status wildlife species as occurring within the project region. Only nine of the 14 have historical records occurring within ten miles of the project site (Figure 6). None of these species or diagnostic sign of these species were observed during the biological survey. However, it is possible given the site conditions that four of the nine species could occur on the site as transient foragers. These species are the American badger (*Taxidea taxus*), San Joaquin kit fox (*Vulpes macrotis mutica*), Swainson's hawk (*Buteo swainsoni*), and the western mastiff bat (*Eumops perotis californicus*). They are not expected to inhabit the project site on a permanent or semi-permanent basis. There is no riparian corridor to provide habitat for the western mastiff bat, western pond turtle, or Swainson's hawk to breed, roost, or forage. Migratory birds protected under the Migratory Bird Treaty Act could potentially nest in the orchard located to the south of the project site.



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Quad Knopf

KNOWN LOCATIONS OF SENSITIVE BIOLOGICAL RESOURCES WITHIN TEN MILES OF THE OUTSIDE CREEK BRIDGE REPLACEMENT PROJECT, TULARE COUNTY, CA

Figure 6

4.3 Vegetation

Agricultural development is the dominant land use surrounding the project site. The area to the northwest is a rural residence, the area to the northeast, east, and southeast are all disked fields and the area to the southeast, west, and northwest is an orchard. The site itself is intesively managed for weed control and has little to no vegetation cover. There were 12 plant species observed on and near the site during the biological survey (Table 1).

Table 1
Plant Species Observed On and Within the Vicinity of the Outside Creek Bridge Replacement Project Site, Tulare, California

Common Name	Scientific Name
Shepard's Purse	*Capsella bursa-pastoris*
Cheeseweed	*Malva parviflora*
horsetail	*Equisetum spp.*
mustard spp.	*Brassica spp.*
creek monkeyflower	*Mimulus guttatus*
puncture vine	*Tribulus terrestris*
horseweed	*Conyza canadensis*
sedge	*Cyperaceae*
poison hemlock	*Conium maculatum*
cudweed	*Pseudognaphalium canescens*
cocklebur	*Xanthium strumarium*
bunchgrass	*Poaceae*

4.4 Animals

Wildlife observed on the project site (Table 2) included a red-shouldered hawk (*Buteo lineatus*), killdeer (*Charadrius vociferus*), common raven (*Corvus corax*), and American crow (*Corvus brachyrhynchos*). Evidence of cliff swallow (*Petrochelidon pyrrhonota*) nests was observed underneath the bridge but no intact nests or individuals were present. The surrounding agricultural fields provide good foraging opportunities for various raptor species, but there are no trees large enough to support raptor nesting except for the orchards to the southwest, west, and northwest of the site. These orchards may also provide habitat for nesting passerine birds. Two small mammal burrows were observed underneath the bridge (Figure 7); one near each of the abutments, but it was not possible to determine what species use these burrows.

Table 2
Wildlife Species Observed On and Within the Vicinity of the Outside Creek Bridge Replacement Project Site, Tulare, California

Common Name	Scientific Name
red-shouldered hawk	*Buteo lineatus*
killdeer	*Charadrius vociferus*
raven	*Corvus corax*
crow	*Corvus brachyrhynchos*
cliff swallow	*Petrochelidon pyrrhonota*

4.5 Waters

Outside Creek is an intensively managed feature that is used solely for irrigation storage and groundwater recharge purposes, and so has an artificial inundation and drying regime. It is considered to be isolated with no significant nexus to Waters of the United States. Although it is not regulated by the U.S. Army Corps of Engineers (ACOE), it is likely considered to be waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB). In accordance with the Porter-Cologne Act, the RWQCB typically claims jurisdiction of all surface waters. The CDFG could also potentially claim jurisdiction of Outside Creek under CDFG Code Section 1600 regardless of its nexus to other waterways. However, it is considered unlikely that CDFG would claim such jurisdiction because this feature lacks riparian habitat, does not support sensitive biological resources, and is generally devoid of any semblance of a wildlife community.

5. PROJECT IMPACTS

Project implementation is estimated to impact approximately one acre, but no more than two acres of land, which includes an existing road to the north and south of the bridge and bare ground to the southwest of the bridge. No trees will be removed and no riparian habitat will be impacted. Potential impacts within the Ordinary High Water Mark (OHWM) of Outside Creek are anticipated to be less than 0.01 acre.

No sensitive vegetation communities or special status plant species will be impacted by project construction. The only special status wildlife species that could potentially be impacted would be transient San Joaquin kit foxes, breeding raptors, and other migratory birds. Implementation of mitigation measures as described below will ensure that impacts to these species would be less than significant.

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Quad Knopf

SOIL TYPES OCCURRING WITHIN THE N-S PORTION OF THE CROSS VALLEY LOOP PROJECT, TULARE COUNTY, CALIFORNIA

Figure 7

6. MITIGATION MEASURES

Mitigation Measure 1. To protect breeding raptors and migratory birds, the following shall be implemented:
If grading or other ground clearing or construction activities occur during the avian breeding season (February 1 through August 15), then pre-construction surveys should be conducted within 500 feet of the project site in habitats that provide the potential for nesting raptors and migratory birds to occur. The survey should be conducted no more than 14 days prior to initiation of those activities. If more than 14 days lapse between the time of the pre-construction survey and the start of these activities, another preconstruction survey must be completed. During the nesting period, raptor nests shall be avoided by 500 feet, and other migratory bird nests shall be avoided by 250 feet. These distances will be clearly delineated with Environmentally Sensitive Area (ESA) fencing.

Mitigation Measure 2. To protect the San Joaquin kit fox and American badger, the following shall be implemented:
Because there is the potential for the San Joaquin kit fox and American badger to occur on site as transient foragers, the United States Fish and Wildlife Service's (USFWS) Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (2011) shall be implemented (Appendix C). These protection measures are also adequate to protect the American badger.

7. PERMITS REQUIRED

No significant impacts to special status species or sensitive communities are anticipated if the above mitigation measures are implemented. However, Outside Creek is likely to be considered waters of the state under the jurisdiction of the RWQCB. The CDFG could also potentially claim jurisdiction of Outside Creek, but this would be considered unlikely. Nonetheless, consultation with both the RWQCB and the CDFG is recommended to verify potential jurisdictional claims through the 401 and 1600 permitting processes, respectively.

8. REFERENCES

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9. APPENDICES

APPENDIX A

PHOTOS

Red-shouldered hawk on powerline

Red-shouldered hawk flaying overhead

Quad Knopf	PHOTOGRAPHS 1 & 2	Appendix A

Northeast corner of bridge

East side of bridge

Quad Knopf	PHOTOGRAPHS 3 & 4	Appendix A

Southeast corner of bridge

South view of Outside Creek from north

Looking north up Outside Creek

Burrow on southern abutment

Burrow on northern abutment

West side of bridge

Northwest corner of bridge

Southwest corner of bridge

Looking west down Outside Creek from bridge

Building to northwest of site

Quad Knopf	PHOTOGRAPHS 13 & 14	Appendix A

Ag lands to east of site

Orchard to southeast of project

APPENDIX B

DATABASE SEARCHES CONDUCTED OF SPECIAL STATUS SPECIES AND SENSITIVE HABITATS RECORDED WITHIN 10 MILES OF THE PROJECT SITE

Appendix B
Database Records of Sensitive Biological Records Occurring within the Region of Outside Creek Bridge Replacement Project Site

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present or Absent	Species Present or Absent	Rationale for Habitat/Species Absence or Presence
Sensitive Natural Communities						
Great Valley Valley Oak Riparian Forest	Great Valley Valley Oak Riparian Forest	RARE	This is a tall, dense, winter-deciduous, broadleafed riparian forest. It exists in relatively fine-textured alluvium, somewhat back from active river channels. These sites experience overbank flooding (with abundant alluvial deposition and groundwater recharge) but not too severe physical battering or erosion.	**Absent**	**Absent**	No suitable habitat exists on the project site for this species. There is little to no overbank flooding in the area. There is one CNDDB record 10 miles north-northeast of the project site.
Northern Claypan Vernal Pool	Northern Claypan Vernal Pool	RARE	Northern claypan vernal pools occur on fairly old, circum-neutral to alkaline, Si-cemented hardpan soils. Often more or less saline. Intergrades via Cismontane Swale with Cismontane Alkali Marsh which has water present throughout the year.	**Absent**	**Absent**	No suitable habitat exists on the project site for this community. There are no CNDDB records within 10 miles of the site.
Valley Sacaton Grassland	Valley Sacaton Grassland	CE	This plant community occurs in fine-textured, poorly drained, usually alkaline soils.	**Absent**	**Absent**	No suitable habitat exists on the project site for this community. There is one CNDDB record approximately nine miles north-northeast of the site.
Special-status Plants						
Atriplex depressa	brittlescale	1B	This annual plant occurs in Chenopod scrubland, grassland, and alkali sink habitats, but it also is known to occur in	**Absent**	**Absent**	No suitable habitat exists on the project site for this species. There is one CNDDB record approximately

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present or Absent	Species Present or Absent	Rationale for Habitat/Species Absence or Presence
			wet areas. This species ranges in elevation from 1 to 1,050 feet and flowers between April and October.			nine miles north-northwest of the project site.
Atriplex erecticaulis	Earlimart orache	1B.2	This plant species is commonly found in valley and foothill grassland between 131 and 328 feet in elevation. It flowers from August and September.	**Absent**	**Absent**	No suitable habitat exists on the project site for this species. There is one CNDDB record approximately three miles south of the project site.
Atriplex minuscula	lesser saltscale	1B	This annual plant occurs in Chenopod scrubland, grassland, and alkali sink habitats, but it also is known to occur in wet areas. This species flowers between May and October and ranges in elevation from 0 to 656 feet.	**Absent**	**Absent**	No suitable habitat exists on the project site for this species. There is one CNDDB record approximately three miles south of the project site.
Atriplex subtilis	subtle orache	1B.2	This annual plant occurs in Chenopod scrubland, grassland, and alkali sink habitats, but it also is known to occur in wet areas. The flowering period is between June and October. Elevation ranges between 130 to 330 feet.	**Absent**	**Absent**	No suitable habitat exists on the project site for this species. There is one CNDDB record approximately three miles south of the project site.
Caulanthus californicus	California jewel flower	FE, CE, 1B	This plant occurs on sandy soils with Chenopod scrub, pinyon juniper woodland, and grassland habitats. The flowering period is between February and May and the elevation ranges between 230 to 328 feet.	**Absent**	**Absent**	No suitable habitat exists on the project site for this species. There is one CNDDB record approximately 3.75 miles west of the project site.

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present or Absent	Species Present or Absent	Rationale for Habitat/Species Absence or Presence
Clarkia springvillensis	Springville clarkia	FT, CE, 1B.2	This plant species inhabits chaparral, cismontane woodland, and valley and foothill grasslands. It occurs in granitic soils. The flowering period is between May and June and the elevation ranges from 800 to 4000 feet.	**Absent**	**Absent**	No habitat exists on the project site. It does not meet the minimum elevation requirements. No CNDDB records exist within 10 miles of the site.
Delphinium recurvatum	recurved larkspur	1B.2	This plant species is commonly found in chenopod scrub, valley and foothill grassland and cismontane woodland. This species occurs between 100 and 2,000 feet and flowers between March and May.	**Absent**	**Absent**	No suitable habitat exists on the project site for this species. There is one CNDDB record approximately 3 miles south of the site.
Eryngium spinosepalum	spiny-sepaled button celery	1B2	Spiny-sepaled button celery is associated with vernal pools and depressions within grasslands. This species ranges between 330 to 840 feet in elevation and flowers during April and May.	**Absent**	**Absent**	There are no vernal pool or grassland depressions on the project site. There is one CNDDB reference approximately eight northeast of the project site.
Fritillaria striata	striped adobe-lily	CT, 1B.1	This species is endemic to the Sierra Nevada and Tehachapi Range foothills. It is found in areas of adobe clay soils or other heavy clay soils within blue-oak woodlands and grasslands. This species occurs between 443 and 4,774 feet in elevation and flowers from February to April.	**Absent**	**Absent**	The project site is not in the foothills and as such, does not meet the habitat requirements. There is one CNDDB occurrence approximately eight miles east of the project site.
Imperata brevifolia	California satintail	2.1	This species is found in a variety of habitat including chaparral, coastal sage scrub, creosote bush scrub, and wetland-riparian. This plant ranges from 0 to	**Absent**	**Absent**	There is no suitable habitat on the project site for this species. There is one CNDDB record approximately

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present or Absent	Species Present or Absent	Rationale for Habitat/Species Absence or Presence
			1,640 feet in elevation and it flowers between September and May.			nine miles north-north west of the project site.
Mimulus pictus	Calico monkey-flower	1B.2	Calico monkey-flowers occur in bare, sunny areas around shrubs and rock outcrops on granitic soils. The flowering period is between March and May and it ranges in elevation between 320 to 4,160 feet.	**Absent**	**Absent**	There is no suitable habitat on the project site. There are no shrubs and no rock outcrops. There is one CNDDB record of the species approximately 7.5 miles east of the project site.
Pseudobahia peirsonii	San Joaquin adobe sunburst	FE, CE	San Joaquin adobe sunburst is associated with adobe clay soils within foothill woodlands and grasslands. Its flowering period is between March and April and it ranges in elevation from 300 to 2,625 feet.	**Absent**	**Absent**	There is no suitable habitat on the project site for the species. There are two CNDDB records within 10 miles of the project site, with the nearest being approximately 4 miles west of the project site.
Sidalcea keckii	Keck's checkerbloom	FE, 1B.1	Keck's checkerbloom occurs on 20 to 40 percent slopes of red or white-colored clay in sparsely-vegetated annual grasslands. The clays are thought to be derived from serpentine (magnesian or ultramafic) soils. Its flowering period is between April and May and it ranges in elevation range from 400 to 1,400 feet.	**Absent**	**Absent**	The soil is not clay-like and there is little topographic relief in the vicinity, other than the banks of the creek itself. The project is also below the elevation range of the species. There are no CNDDB records of the species within 10 miles of the project site.
Special-status Invertebrates						
Branchinecta lynchi	vernal pool fairy shrimp	FT	Vernal pool fairy shrimp occur in a variety of vernal pool habitats from small, clear sandstone rock pools to large, turbid, alkaline, grassland valley floor pools.	**Absent**	**Absent**	There are no vernal pools or around the project. No CNDDB records exist within 10 miles of the project site.

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present or Absent	Species Present or Absent	Rationale for Habitat/Species Absence or Presence
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	FT	Valley elderberry longhorn beetles are associated with elderberry trees (S*ambucus* spp.) in the Central Valley.	**Absent**	**Absent**	There are no elderberries on the project site and no CNDDB records of VELB within 10 miles of the site.
Special-status Fish						
Hypomesus transpacificus	Delta smelt	FT	Delta smelt are found only in the Sacramento and San Joaquin estuaries of the San Francisco Bay.	**Absent**	**Absent**	Outside Creek was dry at the time of the survey. There are no CNDDB records within 10 miles of the project site.
Special-status Reptiles						
Emys (=Clemmys) marmorata	western pond turtle	CSC	Western pond turtles live in streams, large rivers and other bodies of slow-moving water.	**Absent**	**Absent**	Outside Creek was dry at the time of the survey. There are no CNDDB records within 10 miles of the project site.
Gambelia sila	blunt-nosed leopard lizard	FE, CE	Blunt-nosed leopard lizards reside in sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. They seek cover in mammal burrows (they do not excavate their own burrows), under shrubs, or structures such as fence posts.	**Absent**	**Absent**	There are few to no small mammal burrows to provide cover and no large bushes to provide cover either. There were no CNDDB records within 10 miles of the project site.
Thamnophis gigas	giant garter snake	FT, CT	Giant garter snakes require permanent or semi-permanent marshes and sloughs.	**Absent**	**Absent**	No suitable habitat exists on the project site. There are no CNDDB records within 10 miles of the project site.
Special-status Amphibians						
Ambystoma californiense	California tiger salamander	FT, CSC	California tiger salamanders occur in natural ephemeral pools or ponds that mimic them, that remain inundated for 12 weeks or more. They require nearby	**Absent**	**Absent**	No suitable habitat exists on the project site. There are no ephemeral pools, ponds or upland habitat on the site.

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present or Absent	Species Present or Absent	Rationale for Habitat/Species Absence or Presence
			upland habitat that provides refugia such as small mammal burrows or crevices.			
Rana aurora draytonii	California red-legged frog	FT	California red-legged frogs occur in small streams, ponds and marshes, preferably with dense shrubby vegetation such as cattails and willows near deep water pools.	**Absent**	**Absent**	No suitable habitat exists on the project site. There is no water and no shrubbery on the site to support the red-legged frogs.
Rana muscosa	mountain yellow-legged frog		Prefer mountain lakes and creeks, particularly with sunny banks and isolated pools and streams. High gradient streams in the chaparral belt between 1200-7550 feet are where they are often found.	**Absent**	**Absent**	No suitable habitat exists on the project site. Outside Creek was dry at the time of the survey and is far below the preferred elevation.
Special-status Birds						
Buteo swainsoni	Swainson's hawk	CSC	Swainson's hawks occur in riparian forests and other forested areas. They roost in a variety of trees and forage widely over forests, grasslands, and shrublands. They are easily disturbed by human activities.	**Absent**	**Absent**	There is no suitable foraging habitat or nesting habitat on the project site. There are four CNDDB records within 10 miles of the project site, with the nearest one approximately 2.2 miles northeast of the site. It is possible one may fly over the site but it is unlikely to linger.
Gymnogyps californianus	California condor	FE, CE	California condors prefer mountains, gorges, and hillsides, which create updrafts, thus providing favorable soaring conditions.	**Absent**	**Absent**	There is no habitat suitable for California Condors in the project site vicinity. The topography does not lend itself to creating the updrafts required. No CNDDB records exist within 10 miles of the project site.

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present or Absent	Species Present or Absent	Rationale for Habitat/Species Absence or Presence
Special-status Mammals						
Antrozous pallidus	pallid bat	CSC	Pallid bats occur in grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting. Locally common species in low elevations in California.	**Absent**	**Absent**	No favorable habitat exists in the vicinity of the project site. There are no rocky areas to provide roosting habitat and no CNDDB records exist within 10 miles of the project.
Dipodomys nitratoides nitratoides	Tipton kangaroo rat	FE, CE	Tipton kangaroo rats are found in saltbrush scrub and sink scrub communities in the Tulare Lake Basin of the southern San Joaquin valley. They need soft friable soils which escape seasonal flooding to dig their burrows in elevated soil mounds at the base of shrubs.	**Absent**	**Absent**	No suitiable habitat exists in or in the vicinity of the project site. There are no shrubs to burrow under, nor are the correct communities found in the area. There are two CNDDB records within 10 miles of the project site, with the nearest being approximately four miles south.
Eumops perotis californicus	western mastiff bat	CSC	Western mastiff bats are one of the larger north American bats. They roost in rock crevices, caves, trees, and manmade structures located in arid habitats. This species is a high flying forager.	**Present**	**Absent**	Although the current bridge does provide some roosting habitat for western mastiff bats, no sign or individuals were observed during surveys. The nearest CNDDB occurrence is approximately 8 miles northeast of the project site.
Taxidea taxus	American badger	CSC	American badgers occur in dry, open grasslands, edges of farmlands and pastures.	**Present**	**Inferred Present**	The project site offers marginal foraging habitat and there is agricultural land nearby that may provide adequate denning habitat. No sign of the species was observed during surveys. The sole CNDDB

Scientific Name	Common Name	Status	Habitat Requirements	Habitat Present or Absent	Species Present or Absent	Rationale for Habitat/Species Absence or Presence
						record is approximately 10 miles north-northeast of the project site.
Vulpes macrotis mutica	San Joaquin kit fox	FE, CT	San Joaquin kit foxes occur in open, dry grassland and shrub and open forest habitats on the floor of the San Joaquin Valley and surrounding foothills.	**Present**	**Inferred Present**	The project site offers marginal foraging habitat and there is agricultural land nearby that may provide adequate denning habitat. No sign of the species was observed during surveys. Eighteen CNDDB records are within 10 miles of the project site, the nearest of which is approximately 1.7 miles southwest.

Sources:

- California Department of Fish and Game. 2012. California Natural Diversity Data Base, California Department of Fish and Game, Sacramento, CA. Quads: Cairns Corner, Exeter, Rocky Hill, Tulare, Tipton, Visalia, Lindsay, Woodville, and Porterville
- California Native Plant Society (CNPS). 2012. Inventory of Rare and Endangered Plants (online edition, v6-05b 4-11-05). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Quads: Cairns Corner, Exeter, Rocky Hill, Tulare, Tipton, Visalia, Lindsay, Woodville, and Porterville
- Unites States Fish and Wildlife Service. 2012. Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Cairns Corner, Exeter, Rocky Hill, Tulare, Tipton, Visalia, Lindsay, Woodville, and Porterville U.S.G.S 7 ½ Minute Quads. USFWS. Sacramento, CA

Abbreviations:

FE	Federal Endangered Species
FT	Federal Threatened Species
MBTA	Species Protected Under the Auspices of the Migratory Bird treaty Act
CE	California Endangered Species
CT	California Threatened Species
CSC	California Department of Fish and Game Species of Special Concern
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
1A	Presumed Extinct in California

Abbreviations (continued):

2	Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
3	Plants about Which We Need More Information

*Potential Occurrence Definitions:

Present: Species or sign of their presence observed on site at time of the field survey.

Likely:	Species not observed on site, but may reasonably be expected to occur there on a regular basis. Or, species not observed on the site, exceptional habitat exists, and additional surveys needed to verify presence.
Possible:	Species not observed on site, but could occur there from time to time. Or, species not observed on the site, suitable habitat exists, and additional surveys needed to verify presence
Unlikely:	Species not observed on site, and would not be expected to occur there except, perhaps, as a transient. Or, species not observed on the site, marginally suitable habitat exists, and additional surveys needed to verify presence.
Absent:	Species or sign of their presence not observed on site, and precluded from occurring there because habitat requirements not met

APPENDIX C

U. S. FISH AND WILDLIFE SERVICES STANDARDIZED RECOMMENDATIONS FOR PROTECTION OF THE ENDANGERED SAN JOAQUIN KIT FOX PRIOR TO OR DURING GROUND DISTURBANCE

U.S. FISH AND WILDLIFE SERVICE STANDARDIZED RECOMMENDATIONS FOR PROTECTION OF THE ENDANGERED SAN JOAQUIN KIT FOX PRIOR TO OR DURING GROUND DISTURBANCE

Prepared by the Sacramento Fish and Wildlife Office
January 2011

INTRODUCTION

The following document includes many of the San Joaquin kit fox (*Vulpes macrotis mutica*) protection measures typically recommended by the U. S. Fish and Wildlife Service (Service), prior to and during ground disturbance activities. **However, incorporating relevant sections of these guidelines into the proposed project is not the only action required under the Endangered Species Act of 1973, as amended (Act) and does not preclude the need for section 7 consultation or a section 10 incidental take permit for the proposed project.** Project applicants should contact the Service in Sacramento to determine the full range of requirements that apply to your project; the address and telephone number are given at the end of this document. Implementation of the measures presented in this document may be necessary to avoid violating the provisions of the Act, including the prohibition against "take" (defined as killing, harming, or harassing a listed species, including actions that damage or destroy its habitat). These protection measures may also be required under the terms of a biological opinion pursuant to section 7 of the Act resulting in incidental take authorization (authorization), or an incidental take permit (permit) pursuant to section 10 of the Act. The specific measures implemented to protect kit fox for any given project shall be determined by the Service based upon the applicant's consultation with the Service.

The purpose of this document is to make information on kit fox protection strategies readily available and to help standardize the methods and definitions currently employed to achieve kit fox protection. The measures outlined in this document are subject to modification or revision at the discretion of the Service.

IS A PERMIT NECESSARY?

Certain acts need a permit from the Service which includes destruction of any known (occupied or unoccupied) or natal/pupping kit fox dens. Determination of the presence or absence of kit foxes and /or their dens should be made during the environmental review process. All surveys and monitoring described in this document must be conducted by a qualified biologist and these activities do not require a permit. A qualified biologist (biologist) means any person who has completed at least four years of university training in wildlife biology or a related science and/or has demonstrated field experience in the identification and life history of the San Joaquin kit fox. In addition, the biologist(s) must be able to identify coyote, red fox,

gray fox, and kit fox tracks, and to have seen a kit fox in the wild, at a zoo, or as a museum mount. Resumes of biologists should be submitted to the Service for review and approval prior to an6y survey or monitoring work occurring.

SMALL PROJECTS

Small projects are considered to be those projects with small foot prints, of approximately one acre or less, such as an individual in-fill oil well, communication tower, or bridge repairs. These projects must stand alone and not be part of, or in any way connected to larger projects (i.e., bridge repair or improvement to serve a future urban development). The Service recommends that on these small projects, the biologist survey the proposed project boundary and a 200-foot area outside of the project footprint to identify habitat features and utilize this information as guidance to situate the project to minimize or avoid impacts. If habitat features cannot be completely avoided, then surveys should be conducted and the Service should be contacted for technical assistance to determine the extent of possible take.

Preconstruction/preactivity surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox. Kit foxes change dens four or five times during the summer months, and change natal dens one or two times per month (Morrell 1972). Surveys should identify kit fox habitat features on the project site and evaluate use by kit fox and, if possible, assess the potential impacts to the kit fox by the proposed activity. The status of all dens should be determined and mapped (see Survey Protocol). Written results of preconstruction/preactivity surveys must be received by the Service within five days after survey completion and prior to the start of ground disturbance and/or construction activities.

If a natal/pupping den is discovered within the project area or within 200-feet of the project boundary, the Service shall be immediately notified and under no circumstances should the den be disturbed or destroyed without prior authorization. If the preconstruction/preactivity survey reveals an active natal pupping or new information, the project applicant should contact the Service immediately to obtain the necessary take authorization/permit.

If the take authorization/permit has already been issued, then the biologist may proceed with den destruction within the project boundary, except natal/pupping den which may not be destroyed while occupied. A take authorization/permit is required to destroy these dens even after they are vacated. Protective exclusion zones can be placed around all known and potential dens which occur outside the project footprint (conversely, the project boundary can be demarcated, see den destruction section).

OTHER PROJECTS

It is likely that all other projects occurring within kit fox habitat will require a take authorization/permit from the Service. This determination would be made by the Service during the early evaluation process (see Survey Protocol). These other projects would include, but are not limited to: Linear projects; projects with large footprints such as urban development; and projects which in themselves may be small but have far reaching impacts (i.e., water storage or conveyance facilities that promote urban growth or agriculture, etc.).

The take authorization/permit issued by the Service may incorporate some or all of the protection measures presented in this document. The take authorization/permit may include measures specific to the needs of the project and those requirements supersede any requirements found in this document.

EXCLUSION ZONES

In order to avoid impacts, construction activities must avoid their dens. The configuration of exclusion zones around the kit fox dens should have a radius measured outward from the entrance or cluster of entrances due to the length of dens underground. The following distances are **minimums**, and if they cannot be followed the Service must be contacted. Adult and pup kit foxes are known to sometimes rest and play near the den entrance in the afternoon, but most above-ground activities begin near sunset and continue sporadically throughout the night. Den definitions are attached as Exhibit A.

Potential den**	50 feet
Atypical den**	50 feet
Known den*	100 feet
Natal/pupping den (occupied and unoccupied)	Service must be contacted

*Known den: To ensure protection, the exclusion zone should be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by kit foxes. Acceptable fencing includes untreated wood particle-board, silt fencing, orange construction fencing or other fencing as approved by the Service as long as it has openings for kit fox ingress/egress and keeps humans and equipment out. Exclusion zone fencing should be maintained until all construction related or operational disturbances have been terminated. At that time, all fencing shall be removed to avoid attracting subsequent attention to the dens.

**Potential and Atypical dens: Placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required, but the exclusion zone must be observed.

Only essential vehicle operation on existing roads and foot traffic should be permitted. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity should be prohibited or greatly restricted within the exclusion zones.

DESTRUCTION OF DENS

Limited destruction of kit fox dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed. The value to kit foxes of potential, known, and natal/pupping dens differ and therefore, each den type needs a different level of protection. **Destruction of any known or natal/pupping kit fox den requires take authorization/permit from the Service**.

Destruction of the den should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period. If at any point during excavation, a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above should be resumed. Destruction of the den may be completed when in the judgment of the biologist, the animal has escaped, without further disturbance, from the partially destroyed den.

Natal/pupping dens: Natal or pupping dens which are occupied will not be destroyed until the pups and adults have vacated and then only after consultation with the Service. Therefore, project activities at some den sites may have to be postponed.

Known Dens: Known dens occurring within the footprint of the activity must be monitored for three days with tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den should be destroyed immediately to preclude subsequent use.

If kit fox activity is observed at the den during this period, the den should be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Use of the den can be discouraged during this period by partially plugging its entrances(s) with soil in such a manner that any resident animal can escape easily. Only when the den is determined to be unoccupied may the den be excavated under the direction of the biologist. If the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant, for example during the animal's normal foraging activities.

The Service encourages hand excavation, but realizes that soil conditions may necessitate the use of excavating equipment. However, extreme caution must be exercised.

Potential Dens: If a take authorization/permit has been obtained from the Service, den destruction may proceed without monitoring, unless other restrictions were issued with the take authorization/permit. If no take authorization/permit has been issued, then potential dens should be monitored as if they were known dens. If any den was considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by kit fox (e.g., if kit fox sign is found inside), then all construction activities shall cease and the Service shall be notified immediately.

CONSTRUCTION AND ON-GOING OPERATIONAL REQUIREMENTS

Habitat subject to permanent and temporary construction disturbances and other types of ongoing project-related disturbance activities should be minimized by adhering to the following activities. Project designs should limit or cluster permanent project features to the smallest area possible while still permitting achievement of project goals. To minimize temporary disturbances, all project-related vehicle traffic should be restricted to established roads, construction areas, and other designated areas. These areas should also be included in preconstruction surveys and, to the extent possible, should be established in locations disturbed by previous activities to prevent further impacts.

1. Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Night-time construction should be minimized to the extent possible. However if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited.

2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2-feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the Service and the California Department of Fish and Game (CDFG) shall be contacted as noted under measure 13 referenced below.

3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is

discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.

4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.

5. No firearms shall be allowed on the project site.

6. No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.

7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the Service.

9. An employee education program should be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.

10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be

re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the Service, California Department of Fish and Game (CDFG), and revegetation experts.

11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for guidance.

12. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox. The CDFG contact for immediate assistance is State Dispatch at (916)445-0045. They will contact the local warden or Mr. Paul Hoffman, the wildlife biologist, at (530)934-9309. The Service should be contacted at the numbers below.

13. The Sacramento Fish and Wildlife Office and CDFG shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Service contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFG contact is Mr. Paul Hoffman at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.

14. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the Service at the address below.

Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-6620 or (916) 414-6600

EXHIBIT "A" - DEFINITIONS

"Take" - Section 9 of the Endangered Species Act of 1973, as amended (Act) prohibits the "take" of any federally listed endangered species by any person (an individual, corporation, partnership, trust, association, etc.) subject to the jurisdiction of the United States. As defined in the Act, take means " . . . to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct". Thus, not only is a listed animal protected from activities such as hunting, but also from actions that damage or destroy its habitat.

"Dens" - San Joaquin kit fox dens may be located in areas of low, moderate, or steep topography. Den characteristics are listed below, however, the specific characteristics of individual dens may vary and occupied dens may lack some or all of these features. Therefore, caution must be exercised in determining the status of any den. Typical dens may include the following: (1) one or more entrances that are approximately 5 to 8 inches in diameter; (2) dirt berms adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; (4) matted vegetation adjacent to the den entrances; and (5) manmade features such as culverts, pipes, and canal banks.

"Known den" - Any existing natural den or manmade structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records, past or current radiotelemetry or spotlighting data, kit fox sign such as tracks, scat, and/or prey remains, or other reasonable proof that a given den is being or has been used by a kit fox. The Service discourages use of the terms "active" and "inactive" when referring to any kit fox den because a great percentage of occupied dens show no evidence of use, and because kit foxes change dens often, with the result that the status of a given den may change frequently and abruptly.

"Potential Den" - Any subterranean hole within the species' range that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a kit fox. Potential dens shall include the following: (1) any suitable subterranean hole; or (2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use.

"Natal or Pupping Den" - Any den used by kit foxes to whelp and/or rear their pups. Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two, therefore, for purposes of this definition either term applies.

"Atypical Den" - Any manmade structure which has been or is being occupied by a San Joaquin kit fox. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings.

Appendix C

Cultural Resources Survey

A CULTURAL RESOURCES SURVEY OF THE OUTSIDE CREEK BRIDGE (46 C0186) REHABILITATION PROJECT, ROAD 148, 0.15 MILES SOUTH OF AVENUE 224, TULARE COUNTY, CALIFORNIA

Prepared for:

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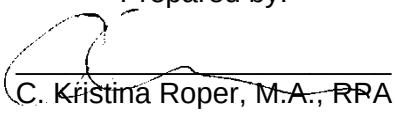
Prepared by:



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_____

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California Department of Transportation, District 6
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Fresno, CA 93721

for

_____

Kelly Hobbs, Environmental Branch Chief
PQS Principal Architectural Historian
California Department of Transportation, District 6
855 M St., Suite 200
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27 April 2012

Topographic Quadrangle: Tulare, 7.5' (1989)
Area: ~1.8 acres (~0.7 hectares)

(Keywords: *Tulare, Township 20S, Range 25E, Bridge 46 C0186, Outside Creek, Choinok Yokuts)*

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MANAGEMENT SUMMARY

On 24 April 2012, a cultural resources survey was performed of approximately ~1.8 acres (0.7 hectares) of land centered along Road 148 where it crosses Outside Creek just south of Avenue 224 in unincorporated land in Tulare County, California (Map 1). The Project Area surveyed (the Area of Potential Effects [APE]) includes a bridge (46 C0186) crossing Outside Creek plus roadway on both approaches to the bridge. Also included in the survey are two temporary construction staging areas for use during project construction (see Map 2). The study area is located in Township 20S, Range 25E, Sections 14/15, MDB&M; see Maps 1 and 2.

The County of Tulare Resource Management Agency proposes to replace an existing, paved, 2-land bridge located on Road 148, crossing Outside Creek. The existing bridge is a 45 ft long and 20.5 ft wide, 3-span, treated DF timber bridge. Because of the narrow roadway width, the bridge is considered functionally obsolete. The existing timber bridge will be removed and replaced with a reinforced concrete structure. The bridge will conform to the existing road width of 20 ft and will not include additional travel lanes. The roadway approaches to the north and south of the bridge may be offset 6 ft to the east in order to line up correctly with the bridge. The APE will include the 45'–long bridge with an additional 700 feet on the north and 400 ft on the south of roadway reconstruction on each side of the bridge. Proposed staging areas include an area northeast and southeast of the bridge along the existing road approaches. Staging areas will be used during construction to store equipment and materials and to provide parking areas for construction workers and equipment. These temporary staging areas will be reclaimed to conditions equivalent to existing conditions after project construction has been completed.

Quad Knopf is assisting the County of Tulare Resource Management Agency with the preparation of environmental documents necessary under the California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA). Provisions and implementing guidelines of the CEQA, as amended March 18, 2010, state that identification and evaluation of historical resources is required for any action that may result in a potential adverse effect on the significance of such resources, which include archaeological resources. Identification of historic properties is also required pursuant to provisions and implementing regulations of Section 106 of the National Historic Preservation Act.

Bridge 46 C0186 has been determined ineligible for listing on the National Register of Historic Places (Caltrans 2012). No other historical resources or properties were identified as a result of surface inspection of the APE, and there appears to be little likelihood of buried cultural resources within the APE; thus, it is unlikely that rehabilitation of the existing bridge and associated roadwork will have an effect on important archaeological, historical, or other cultural resources. No further cultural resources investigation is therefore recommended. In the unlikely event that buried archaeological deposits are encountered within the Project APE, the finds must be evaluated by a qualified archaeologist. Should human remains be encountered, the County Coroner must be contacted immediately; if the remains are determined to be Native American, then the Native American Heritage Commission must be contacted as well.

1.0 INTRODUCTION

This report presents the findings of a cultural resource survey of approximately 1.8 acres (0.7 hectares) of land centered along Road 148 where it crosses the Outside Creek, ca. 1.5 mi south of Avenue 224 in unincorporated land in Tulare County, California. The Project Area surveyed (the Area of Potential Effects [APE]) includes a bridge (46 C0186) crossing the Outside Creek, plus roadway on both approaches to the bridge. Also included in the survey are two temporary construction staging areas for use during project construction (see Map 2). The study area is located in Township 20S, Range 25E, and straddles Sections 14 and15, MDB&M; see Maps 1 and 2.

The existing Outside Creek Bridge was built in 1946, has two traffic lanes and is a 3-span, treated DF timber bridge 45 ft in length and 20.5 ft wide. Because of the narrow roadway width, the bridge is considered functionally obsolete. The existing timber bridge will be removed and replaced with a reinforced concrete structure. The bridge will conform to the existing road width of 20 ft and will not include additional travel lanes. The roadway approaches to the north and south of the bridge may be offset 6 ft to the east in order to line up correctly with the bridge. The APE will include the 45'–long bridge with an additional 700 feet on the north and 400 ft on the south of roadway reconstruction on each side of the bridge.

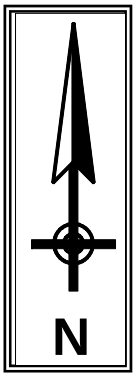
The APE also includes two potential construction staging areas located northeast and southeast of the bridge along the existing road approaches. Staging areas will be used during construction to store equipment and materials and to provide parking areas for construction workers and equipment. These temporary staging areas will be reclaimed to conditions equivalent to existing conditions after project construction has been completed.

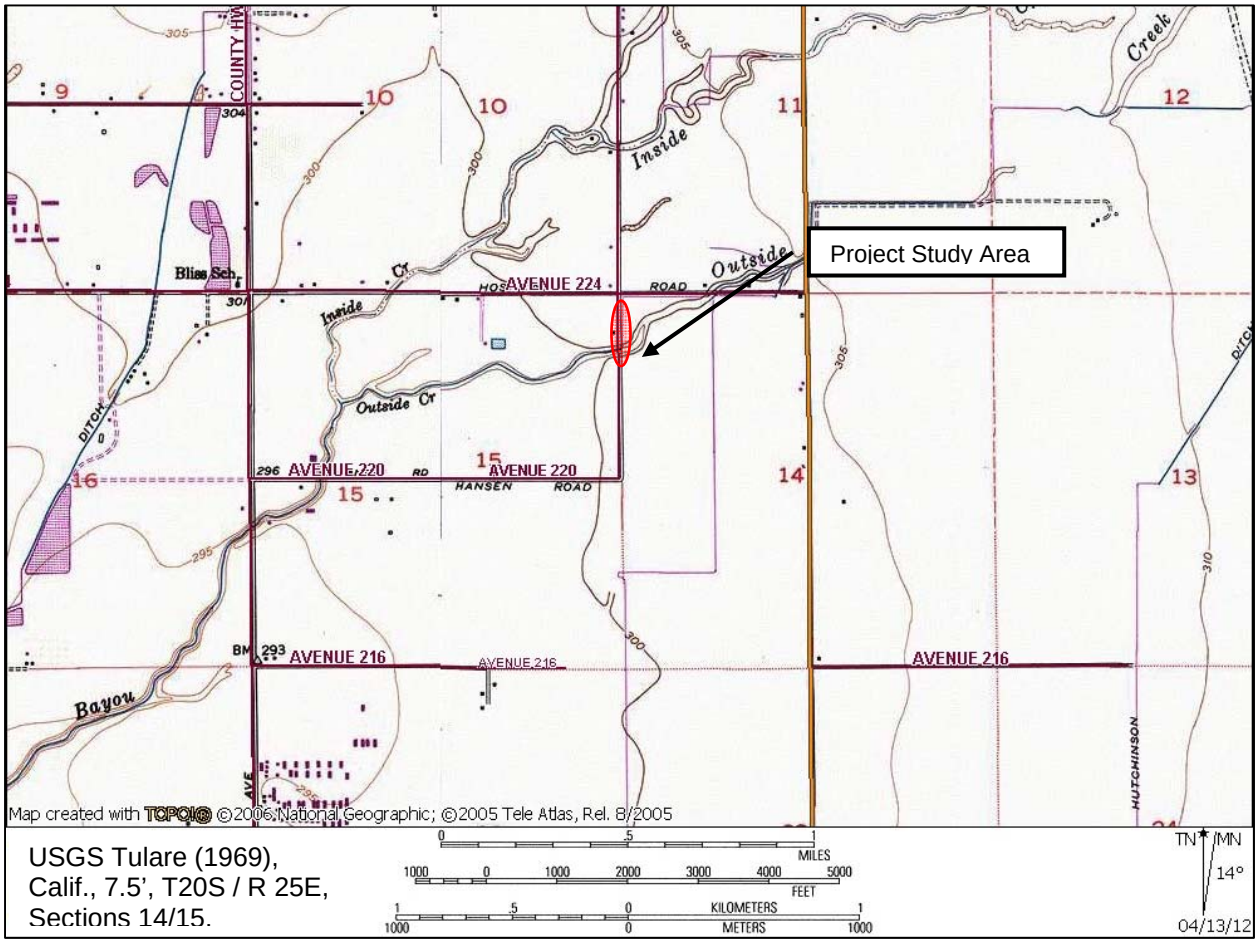
Quad Knopf is assisting the County of Tulare Resource Management Agency with the preparation of environmental documents necessary under the California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA). Provisions and implementing guidelines of the CEQA, as amended March 18, 2010, state that identification and evaluation of historical resources is required for any action that may result in a potential adverse effect on the significance of such resources, which include archaeological resources. Identification of historic properties is also required pursuant to provisions and implementing regulations of Section 106 of the National Historic Preservation Act.

The author conducted a cultural resources survey of the Project APE on 24 April 2012. A brief description of the natural and cultural setting of the Project APE follows this introduction. Survey methods and findings are presented in the subsequent section.

MAP 1. PROJECT VICINITY

Bridge 46 C0186, Outside Creek
Bridge Rehabilitation, Tulare County





USGS Tulare (1969),
Calif., 7.5', T20S / R 25E,
Sections 14/15.

Map 2. Project Location / Area of Potential Effects (APE).

2.0 SETTING

The Project Study Area is located on valley bottom lands approximately 3 miles east of the City of Tulare, in west-central Tulare County, California. Twentieth century modifications within and immediately surrounding the study area include Road 148, Bridge 46 C0186, channelized Outside Creek, a utility line, and a single family rural residence with associated outbuildings and farmed land. The surrounding area is rural residential and includes lands currently under agricultural production. Southwest of the project area is an orchard, and to east are irrigated grain crops. Figures 1 through 6 provide a pictorial overview of the Project APE.

2.1 Natural Environment

The Project Study Area is located along Outside Creek in the broad Kaweah River drainage in the lower elevations of the western south-central Sierra Nevada foothills of eastern Tulare County, at an elevation of 300 ft (91 m) above mean sea level. Outside Creek flows southwest into Elk Bayou, which then flows into the Tule River, and ultimately draining into numerous canals and ditches that provide irrigation water to agricultural parcels within the former Tulare lakebed. Soils within the study area include moderately well-drained loams of the Flamen Series. Current land use is primarily agricultural with scattered single-family residences. Vegetation within the stream channel includes scattered patches of riparian grasses.

Prior to EuroAmerican exploration and settlement in the region, the central San Joaquin Valley was extensive grassland covered with spring-flowering herbs. Stands of trees -- sycamore, cottonwoods, box elders and willows -- lined the stream and river courses with groves of valley oaks in well-watered localities with rich soil. Rivers yielded fish, mussels, and pond turtles; migratory waterfowl nested in the dense tules along the river sloughs downstream. Tule elk, sometimes referred to by early Spanish explorers as wild horses, found ample forage. Smaller mammals and birds, including jackrabbits, ground squirrels, and quail were abundant. Native Americans occupants of the region describe abundant sedge beds, along with rich areas of deer grass, plants that figure prominently in the construction of Native American basketry items.

2.2 Prehistoric Period Summary

The San Joaquin Valley and adjacent Sierran foothills and Coast Range have a long and complex cultural history with distinct regional patterns that extend back more than 11,000 years (McGuire 1995). The first generally agreed-upon evidence for the presence of prehistoric peoples in the region is represented by the distinctive basally-thinned and fluted projectile points, found on the margins of extinct lakes in the San Joaquin Valley. These projectiles, often compared to Clovis points, have been found at three localities in the San Joaquin Valley including along the Pleistocene shorelines of former Tulare Lake. Based on evidence from these sites and other well-dated contexts elsewhere, these Paleo-Indian hunters who used these spear points existed during a narrow time range of 11,550 BP to 8,550 BP (Rosenthal et al. 2007).

As a result of climate change at the end of the Pleistocene, a period of extensive deposition occurred throughout the lowlands of central California, burying many older landforms and providing a distinct break between Pleistocene and subsequent occupations during the Holocene. Another period of deposition, also a product of climate change, had similar results around 7,550 BP, burying some of the oldest archaeological deposits discovered in California (Rosenthal and Meyer 2004).

Figure 1. View north along Road 148 and Bridge 46 C0186.

Figure 2. View of wooden supports and west side (looking northeast) of Bridge 46 C0186.

Figure 3. View of wooden supports and east side (looking northwest) of Bridge 46 C0186.

Figure 4. View west along Outside Creek from Bridge 46 C0186.

Figure 5. View north along Outside Creek from Bridge 46 C0186.

Figure 6. View northeast from Bridge 46 C0186 toward cultivated fields.

The Lower Archaic (8,550-5,550 BP) is characterized by an apparent contrast in economies, although it is possibly they may be seasonal expressions of the same economy. Archaeological deposits which date to this period on the valley floor frequently include only large stemmed spear points, suggesting an emphasis on large game such as artiodactyls (Wallace 1991). Recent discoveries in the adjacent Sierra Nevada have yielded distinct milling assemblages which clearly indicate a reliance on plant foods. Investigations at Copperopolis (LaJeunesse and Pryor 1996) argue that nut crops were the primary target of seasonal plant exploitation. Assemblages at these foothill sites include dense accumulations of handstones, millingslabs, and various cobble-core tools, representing "frequently visited camps in a seasonally structured settlement system (Rosenthal et al. 2007:152). As previously stated, these may represent different elements of the seasonal round. Future investigations should address this question. What is known is that during the Lower Archaic, regional interaction spheres had been well established. Marine shell from the central California coast has been found in early Holocene contexts in the great basin east of the Sierra Nevada, and eastern Sierra obsidian comprises a large percentage of flaked stone debitage and tools recovered from sites on both sides of the Sierra.

About 8,000 years ago, many California cultures shifted the main focus of their subsistence strategies from hunting to nut and seed gathering, as evidenced by the increase in food-grinding implements found in archeological sites dating to this period. This cultural pattern is best known for southern California, where it has been termed the Milling Stone Horizon (Wallace 1954, 1978a), but recent studies suggest that the horizon may be more widespread than originally described and is found throughout the region during the Middle Archaic Period. Radiocarbon dates associated with this period vary between 8,000 and 2,000 BP, although most cluster in the 6,000 to 4,000 BP range (Basgall and True 1985).

On the valley floor, early Middle Archaic sites are relatively rare. This changes significantly toward the end of the Middle Archaic. In central California late Middle Archaic settlement focused on river courses on the valley floor. "Extended residential settlement at these sites is indicated by refined and specialized tool assemblages and features, a wide range of nonutilitarian artifacts, abundant trade objects, and plant and animal remains indicative of year-round occupation" (Rosenthal et al. 2007:154). Again, climate change apparently influence this shift, with warmer, drier conditions prevailing throughout California. The shorelines of many lakes, including Tulare Lake, contracted substantially, while at the same time rising sea levels favored the expansion of the San Joaquin/Sacramento Delta region, with newly formed wetlands extending eastward from the San Francisco Bay.

In contrast, early Middle Archaic sites are relatively common in the Sierran foothills, and their recovered, mainly utilitarian assemblages recovered show relatively little change from the preceding period with a continued emphasis on acorns and pine nuts. Few bone or shell artifacts, beads, or ornaments have been recovered from these localities. Projectile points from this period reflect a high degree of regional morphological variability, with an emphasis on local toolstone material supplemented with a small amount of obsidian from eastern sources. In contrast with the more elaborate mortuary assemblages and extended burial mode documented at Valley sites, burials sites documented at some foothill sites such as CA-FRE-61 on Wahtoke Creek are reminiscent of "re-burial" features reported from Milling Stone Horizon sites in southern California. These re-burials are characterized by re-interment of incomplete skeletons often capped with inverted millingstones (McGuire 1995:57).

A return to colder and wetter conditions marked the Upper Archaic in Central California (2,500-1,000 BP). Previously desiccated lakes returned to spill levels and increased freshwater flowed in the San Joaquin and Sacramento watershed. Cultural patterns as reflected in the

archeological record, particularly specialized subsistence practices, emerged during this period. The archeological record becomes more complex, as specialized adaptations to locally available resources were developed and valley populations expanded into the lower Sierran foothills. New and specialized technologies expanded distinct shell bead types occur across the region. The range of subsistence resources utilized and exchange systems expanded significantly from the previous period. In the Central Valley, archaeological evidence of social stratification and craft specialization is indicated by well-made artifacts such as charmstones and beads, often found as mortuary items.

The period between approximately 1,000 BP and Euro-American contact is referred to as the Emergent Period. The Emergent Period is marked by the introduction of bow and arrow technology which replaced the dart and atlatl at about 1,100 to 800 BP. In the San Joaquin region, villages and small residential sites developed along the many stream courses in the lower foothills and along the river channels and sloughs of the valley floor. A local form of pottery was developed in the southern Sierran foothills along the Kaweah River. While many sites with rich archaeological assemblages have been documented in the northern Central Valley, relatively few sites have been documented from this period in the southern Sierran foothills and adjacent valley floor, despite the fact that the ethnographic record suggests dense populations for this region.

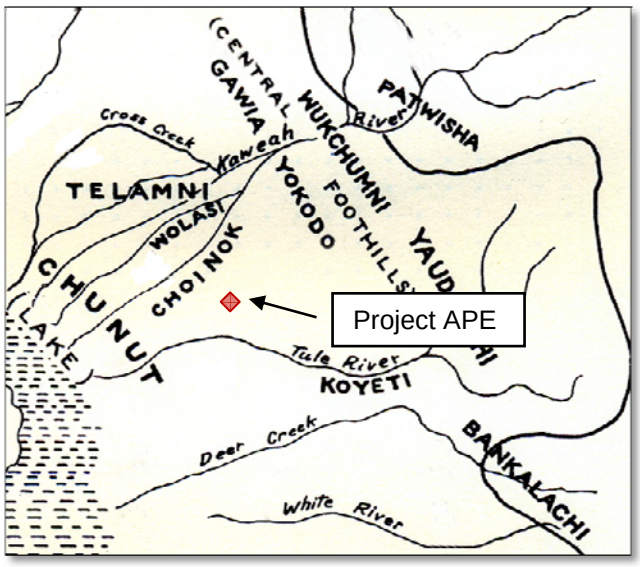


Figure 7. Southern Valley Yokuts Tribelet Locations (from Latta 1999).

2.3 Ethnographic Summary

Prior to EuroAmerican settlement, speakers of Yokutsan languages occupied most of the San Joaquin Valley and the bordering foothills of the Sierra Nevada and Diablo Range. Most of the Valley Yokuts lived on the eastern side of the San Joaquin River. The Project Study Area falls within territory occupied by the *Choinok Y*okut. "The Choinok, … were the southernmost of three tribes in the flaring, slough-intersected delta of the Kaweah. They lived south of Tulare City and below Farmersville, probably on Deep and Outside Channels, in which region their town of Ch'iuta may be looked for" (Kroeber 1925:482).

Due to the abundance and diversity of wildlife habitats and plant communities within the Sierran foothills and nearby San Joaquin Valley and higher elevations of the Sierra Nevada, Native American population densities in the region were quite high (Baumhoff 1963). While the acorn was the dietary staple, the diversity of accessible natural resources provided an omnivorous diet. The reader is referred to Gayton (1948), Kroeber (1925), Latta (1999), and Wallace 1978b for additional information on pre-contact Yokuts subsistence and culture. Figure 7 depicts the territory of the location of *Choinok* Yokut relative to the Project APE.

2.4 Historic Period Summary

The San Joaquin Valley was visited in the early 1800s by Spanish expeditions exploring the interior in search of potential mission sites. The Moraga (1806) expedition may have passed through *Choinok* territory (Cook 1960; Smith 1939). One of the earliest Americans to explore the Tulare area was Jedediah Strong Smith in 1826-27. In 1832-33 Colonel Jose J. Warner, a member of the Ewing-Young trapping expedition, passed through the San Joaquin Valley. Warner described Native villages densely packed along the valley waterways, from the foothills down into the slough area. The next year he revisited the area following a devastating malaria epidemic. Whereas the previous year the region had been densely occupied by Native peoples, during this trip not more than five Indians were observed between the head of the Sacramento Valley and the Kings River (Cook 1955).

EuroAmerican appreciation for the land did not include acceptance of its indigenous human populations, and pressure was exerted upon the US military to remove the Native population from the region, leaving the region open for American settlement and resource development. EuroAmerican settlement of the region began in 1851 with the establishment of Fort Miller on the San Joaquin River. Hostilities between Native inhabitants and American settlers initially prevented widespread settlement of the region; however, by 1860 such threats had been reduced and settlers began taking up large tracts in the region.

In late 1849 or early 1850, a party under the leadership of John Wood settled on the south bank of the Kaweah River, about seven miles east of the present city of Visalia (Hoover et al. 1990:508). In April, 1852, Tulare County was created, with the county seat initially located at Woodsville. In 1853 the county seat was removed to Fort Visalia, located in the area bounded by Oak, Center, Garden and Bridge streets. The City of Tulare, founded by the Southern Pacific Railway Company in 1872, was designed to become the leading city of the county, as well as the county seat. Tragedy struck the city in the form of a succession of devastating fires, followed by massive debt, causing many to move their homes and business to Visalia. The city finally recovered in 1902 and became a thriving center for dairy farming.

Figure 8 provides a map of land ownership and development in the general project area vicinity. The Project APE falls within lands owned by George D. Bliss. No structures are depicted within or adjacent to the Project APE.

2.5 Record Search Results

Prior to field inspection, a records search was conducted by the author at the Southern San Joaquin Valley Information Center of the California Historical Resources Information System to identify areas previously surveyed and identify known cultural resources present within or in close proximity to the Project APE (Attachment 1). According to the Information Center records, there have been no cultural resource surveys completed within or within a ½-mile radius of the Project APE. No cultural resources have been recorded within or adjacent to the Project APE, and no resources are documented within a ½-mile radius of the Project APE. No cultural resource sites listed on the National Register of Historic Places, the California Register of Historic Resources, California Points of Historical Interest, State Historic Landmarks, or the California Inventory of Historic Resources have been documented within ½-mile radius of the Project APE.

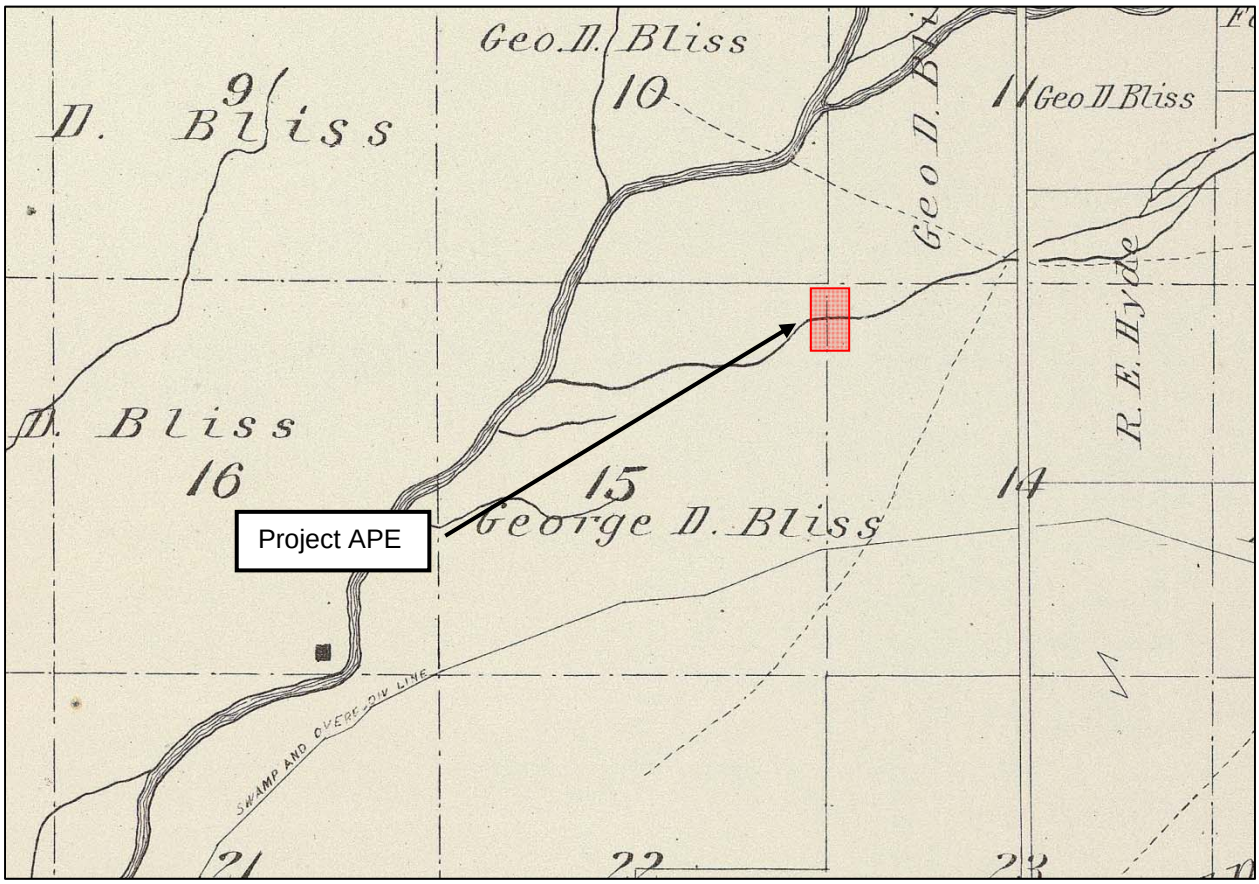


Figure 8. 1892 Map depicting parcel ownership and development within the Project APE (Thompson 1892).

2.6 Native American Consultation

The Native American Heritage Commission (NAHC) was contacted in order to determine whether Native American sacred sites have been identified either within or in close proximity to the project area). A letter was received from the NAHC dated 11 March 2011 which indicated that while no Native American cultural resources were located within one-half mile of the proposed project APE, there are several Native American cultural resources in close proximity to the APE. Letters describing the proposed bridge replacement project and the findings of this report were sent to the seven individuals identified as local area contacts. To date no response has been received from any of these individuals.

3.0 METHODS AND FINDING

On 24 April 2012 the author conducted a cultural resources survey of the Project APE. The Project APE comprises the existing bridge and roadway with two potential staging areas -- one to the northeast along a private driveway, and the other immediately south and west of Road 148 between an existing orchard and Outside Creek channel -- as well as portions of Outside Creek banks and stream bottom. At the time of the survey, the creek banks were wet and extremely slippery; however, ground visibility throughout the project APE was excellent.

An existing timber bridge (No. 46 C0186) is located within the Project APE. The bridge, oriented on a north/south axis and consisting of a single span carrying two lanes of traffic over Outside Creek, was constructed in 1950. The bridge has been determined ineligible for listing on the National Register of Historic Places (See Attachment 2). No other cultural resources over 50 years of age were noted within the Project APE.

No historical resources or properties (i.e., cultural resources eligible for inclusion on the NRHP or the California Register) were identified as a result of surface inspection of the APE, and there appears to be little likelihood of buried cultural resources within the APE. Thus it is unlikely that rehabilitation of Bridge 46 C0186 will have an effect on important archaeological, historical, or other cultural resources. No further cultural resources investigation is therefore recommended. In the unlikely event that buried archaeological deposits are encountered within the Project APE, the finds must be evaluated by a qualified archaeologist. Should human remains be encountered, the County Coroner must be contacted immediately; if the remains are determined to be Native American, then the Native American Heritage Commission must be contacted as well.

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1978b Southern Valley Yokuts. In Handbook of North American Indians, vol. 8, *California*, edited by R. F. Heizer, pp. 448-461. Smithsonian Institution, Washington, D.C.

1991 Tulare Lake's Archaeological Past. In *Background to a Study of Tulare Lake's Archaeological Past*, pp. 23-33. Contributions to Tulare Lake Archaeology 1.

PREPARER'S QUALIFICATIONS

C. Kristina Roper conducted the historical resources inventory and background research, and assisted in the preparation of this Historic Resource Evaluation Report. Ms. Roper has over 30 years of professional experience in the field of archaeology, historical research and architectural evaluation, specifically in the investigation and management of cultural resources within the context of local, state and federal regulatory compliance for projects in the Far West. Ms. Roper holds a Master's degree in Cultural Resources Management awarded in 1993 from Sonoma State University, and is certified as a Registered Professional Archaeologist. She has completed graduate-level coursework in historical architectural evaluation and historic research. Her experience in cultural resources management includes both government and private sector employment and contracting for archaeological field services and historic research, documentation of resource assessments for Initial Studies (IS), Environmental Assessments (EA), Environmental Impact Reports (EIR), and Environmental Impact Statements (EIS). Ms. Roper is a registered archaeologist with the California Historic Resources Information System.

Ms. Roper has participated in planning efforts with numerous governmental entities in the San Joaquin Valley. She has prepared heritage preservation ordinances for the City of Chowchilla, serves as advisory staff to the Chowchilla Heritage Preservation Commission, and has recently completed a multi-year survey and assessment of Chowchilla's built environment. Ms. Roper has prepared a cultural resources records search and sensitivity analysis to be used in the development of a revised General Plan for the City of Coalinga, Fresno County. Ms. Roper has consulted with Native American tribes in the San Joaquin Valley and Sierra foothills under Senate Bill 18 (SB 18), which applies to General Plans, Specific Plans, and amendments proposed on or after March 1, 2005. SB 18 expands CEQA for the protection of California's traditional tribal cultural places by requiring consultation with Native American Groups during these planning efforts to define resources and sacred areas and incorporate protection of these important resources into the planning process.

Ms. Roper has served as a Lecturer in Anthropology at California State University Fresno from 1995 to the present. Among her many courses taught is an upper division course in Cultural Resources Management which provides an overview of state and federal historic preservation law and the identification and evaluation of cultural resources. From 2002 through June of 2009, Ms. Roper served as Project Director for a services contract with the California Department of Transportation, District 6, Cultural Resources Branch, administered by the California State University Foundation. Ms. Roper supervised a team of cultural resources technicians who performed professional and technical services required by Caltrans for cultural resource studies. These included archaeological survey, title search for historic structures and properties, prehistoric and historic background research, excavation of archaeological sites, electronic data entry, and maintenance of confidential archaeological records and files.

ATTACHMENT 1: Records Search

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

FRESNO KERN KINGS MADERA TULARE

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 46 MEC
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289 FAX (661) 654-2415
E-mail: ssjvic@csub.edu

TO: C. Kristina Roper, Consulting Archaeologist (RS# 12-106)
Sierra Valley Cultural Planning
41845 Sierra Drive
Three Rivers, CA 93271

DATE: April 17, 2012

RE: Bridge No. 46C0186, Outside Creek Bridge Replacement; Bridge No. 46C0404, Deep Creek Bridge Replacement

County: Fresno

Map(s): Fresno South 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The Southern San Joaquin Valley Information Center is under contract to the State Office of Historic Preservation and is responsible for the local management of the California Historical Resources Inventories. The following are the results of a search of the cultural resources site files at the IC. These files include known and recorded archaeological and historic sites, inventory and excavation reports filed with this office, and properties listed in the Historic Property Data File (4/5/12), on the National Register of Historic Places, the California Register, the California Historical Landmarks, The California Inventory of Historic Resources, and The California Points of Historical Interest.

PRIOR CULTURAL RESOURCE INVENTORIES WITHIN THE PROJECT AREAS AND THE ONE-HALF MILE RADII

According to the information in our files, there have been no cultural resource studies conducted within the project areas. There has been one (1) study conducted within the one-half mile radii, TU-00629. The study location and associated report number can be found on the project map.

(RS# 12-106)

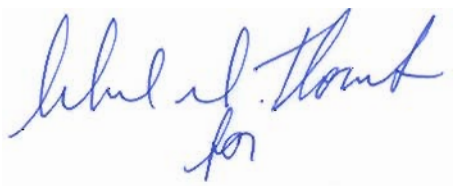
KNOWN CULTURAL RESOURCES WITHIN THE PROJECT AREAS AND THE ONE-HALF MILE RADII

There are no recorded cultural resources within the project areas. There is one (1) recorded resource within the one-half mile radii, P-54-000329. The resource location and its associated primary number can be found on the project map.

Both bridges have been found ineligible for the listing on the National Register of Historic Places (*Caltrans Statewide Historic Bridge Inventory Update*, October 2005). There are no known cultural resources within the project area that are listed in the National Register of Historic Places, Historic Property Data File, the California Register, California Inventory of Historic Resources, California Points of Historical Interest, or the California State Historic Landmarks.

COMMENTS

Requested copies are enclosed. If you need any additional information for this project, please don't hesitate to contact me at (661) 654-2289.

By: 

Brian E. Hemphill, Ph. D.
Coordinator

Date: April 17, 2012

Fee: $225.00/hr. (Priority Service)

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

ATTACHMENT 2: Caltrans SM&I Data Sheet, Historical Significance, Local Agency Bridges (April 2012)

Structure Maintenance & Investigations

Historical Significance - Local Agency Bridges

District 06

Tulare County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
46C0162	RANCHERIA CREEK	3.41 MI E OF BALCH PARK	5. Bridge not eligible for NRHP	1954	
46C0163	SPEAR CREEK	3 MI N OF JACK RANCH RD	5. Bridge not eligible for NRHP	1947	
46C0168	PORTER SLOUGH	AT MORTON AVE	5. Bridge not eligible for NRHP	1955	
46C0169	NORTH FORK TULE RIVER	0.1 MI BALCH PARK RD	5. Bridge not eligible for NRHP	1978	
46C0170	PORTER SLOUGH	CITY OF PORTERVILLE	5. Bridge not eligible for NRHP	1953	
46C0171	PORTER SLOUGH	CITY OF PORTERVILLE	5. Bridge not eligible for NRHP	1941	
46C0172	PORTER SLOUGH	0.5 MI N SR 190	5. Bridge not eligible for NRHP	1954	
46C0173	PORTER SLOUGH	0.4 MI N SR 190	5. Bridge not eligible for NRHP	1937	
46C0174	PACKWOOD CREEK	0.12 MI N OF AVE 280	5. Bridge not eligible for NRHP	1980	
46C0175	PACKWOOD CREEK	1.1 MI W OF RD 140	5. Bridge not eligible for NRHP	1970	
46C0176	ALTA CANAL (ALTA EAST BRANCH CANAL)	0.3 MI S OF AVE 432	5. Bridge not eligible for NRHP	1968	
46C0177	SAND CREEK	0.35 MI. N SR 201	5. Bridge not eligible for NRHP	1939	1973
46C0178	COTTONWOOD CREEK	0.4 MI N OF AVE 368	5. Bridge not eligible for NRHP	1948	
46C0179	ALTA CANAL (ALTA EAST BRANCH CANAL)	@ AVE 408	5. Bridge not eligible for NRHP	1939	1960
46C0180	FRIANT-KERN CANAL	0.2 MI NORTH OF AVE 264	4. Historical Significance not determined	1949	
46C0181	HICKMAN CREEK	3.5 MI N OF S.R. 190	5. Bridge not eligible for NRHP	1949	
46C0182	FRIANT-KERN CANAL	0.5 MI SOUTH OF SR 198	4. Historical Significance not determined	1949	
46C0183	BEAR CREEK	6.7 MI E OF BALCH PARKRD	5. Bridge not eligible for NRHP	1956	
46C0186	OUTSIDE CREEK	0.15 MI S OF AVE 224	5. Bridge not eligible for NRHP	1950	
46C0187	SAND CREEK	.25 MI E OF SR 63	5. Bridge not eligible for NRHP	1938	
46C0188	SAND CREEK	.15 MI S OF FRE CO LINE	5. Bridge not eligible for NRHP	1947	
46C0189	MURRAY CREEK	.25 MI N OF SR245	5. Bridge not eligible for NRHP	1938	
46C0190	SAND CREEK	0.19 MI S OF A456	5. Bridge not eligible for NRHP	1950	
46C0191	MIDDLE FORK TULE RIVER	0.1 MI SE SR 190	5. Bridge not eligible for NRHP	1967	
46C0192	DRY CREEK	0.5 MI FROM RD SD 243	5. Bridge not eligible for NRHP	1940	
46C0193	PACKWOOD CANAL	.67 MI NE OF R180	5. Bridge not eligible for NRHP	1956	
46C0194	KETCHUM DITCH	.18 MI W OF R196	5. Bridge not eligible for NRHP	1958	
46C0195	SOUTH FORK KAWEAH RIVER	11.1 MI SE OF ROAD M347	5. Bridge not eligible for NRHP	1952	
46C0196	EAST FORK KAWEAH RIVER	6.68 MI E OF SR 198	2. Bridge is eligible for NRHP	1923	
46C0197	SOUTH FORK KAWEAH RIVER	1.34 MI SE OF RD M347	5. Bridge not eligible for NRHP	1956	
46C0198	SOUTH FORK KAWEAH RIVER	1.42 MI SE OF M347	5. Bridge not eligible for NRHP	1934	1965
46C0199	SOUTH FORK KAWEAH RIVER	4.1 MI SE CO RD M347	5. Bridge not eligible for NRHP	1959	
46C0200	DEER CREEK	2.23 MI SE OF M120	5. Bridge not eligible for NRHP	1956	1959
46C0201	DEER CREEK	5.11 MI SE/O M120	5. Bridge not eligible for NRHP	1967	
46C0202	DEER CREEK	5.86 MI SE OF M120	5. Bridge not eligible for NRHP	1939	
46C0203	DEER CREEK	13.9 MI SE OF M120	5. Bridge not eligible for NRHP	1930	
46C0204	TYLER CREEK	0.3 MI N OF M56	5. Bridge not eligible for NRHP	1952	
46C0205	DEER CREEK	16.4 MI E M109	5. Bridge not eligible for NRHP	1937	
46C0206	SALMON CREEK	11.94 MI SE OF M50	5. Bridge not eligible for NRHP	1967	
46C0207	BRUSH CREEK	4.81 MI SE OF MSO	5. Bridge not eligible for NRHP	1940	1974
46C0208	COTTONWOOD CREEK	0.2 MI W SR 245	5. Bridge not eligible for NRHP	1961	
46C0210	CAMERON CREEK	0.1 MI E OF RD 168	5. Bridge not eligible for NRHP	1951	1981
46C0211	TULARE IRRIGATION DISTRICT CANAL	0.2 MI E OF RD 156	5. Bridge not eligible for NRHP	1948	1981

ATTACHMENT 3: Native American Consultation

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

April 16, 2012

Ms. C. Kristina Roper, RPA
Sierra Valley Cultural Planning
41845 Sierra Drive
Three Rivers, CA 93271

Sent by FAX to: 559-561-6041
No. of Pages: 5

Re: Sacred Lands File Search and Native American Contacts list for the **"Outside Creek Bridge (No. 46C0186) Replacement Project;"** located on Road 148 in Tulare County, California

Dear Ms.

The Native American Heritage Commission (NAHC) conducted a Sacred Lands File search of the 'area of potential effect,' (APE) based on the USGS coordinates provided and **Native American cultural resources were not identified** in the project area of potential effect (e.g. APE): you specified. Also, please note; the NAHC Sacred Lands Inventory is not exhaustive and does not preclude the discovery of cultural resources during any project groundbreaking activity.

California Public Resources Code §§5097.94 (a) and 5097.96 authorize the NAHC to establish a Sacred Land Inventory to record Native American sacred sites and burial sites. These records are exempt from the provisions of the California Public Records Act pursuant to. California Government Code §6254 (r). The purpose of this code is to protect such sites from vandalism, theft and destruction.

In the 1985 Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources, impacted by proposed projects including archaeological, places of religious significance to Native Americans and burial sites

The California Environmental Quality Act (CEQA – CA Public Resources Code §§ 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. CA Government Code §65040.12(e) defines "environmental justice" provisions and is applicable to the environmental review processes.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Local Native Americans may have knowledge of the religious and cultural significance of the historic properties of the proposed project for the area (e.g. APE). Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). We urge consultation with those tribes and interested Native Americans on the list that the NAHC has provided in order to see if your proposed project might impact Native American cultural resources. Lead agencies should consider avoidance as defined in §15370 of the CEQA Guidelines when significant cultural resources as defined by the CEQA Guidelines §15064.5 (b)(c)(f) may be affected by a proposed project. If so, Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "substantial," and Section 2183.2 which requires documentation, data recovery of cultural resources.

The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

Partnering with local tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 4(f), Section 110 (f)(k) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The NAHC remains concerned about the limitations and methods employed for NHPA Section 106 Consultation.

Also, California Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery', another important reason to have Native American Monitors on board with the project.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. An excellent way to reinforce the relationship between a project and local tribes is to employ Native American Monitors in all phases of proposed projects including the planning phases.

Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of he NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision

on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibility threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton

Attachment: Native American Contact List

Native American Contacts
Tulare County
April 16, 2012

Santa Rosa Rancheria
Rueben Barrios, Chairperson
P.O. Box 8
Lemoore , CA 93245
(559) 924-1278
(559) 924-3583 Fax

Tache
Tachi
Yokut

Sierra Nevada Native American Coalition
Lawrence Bill, Interim Chairperson
P.O. 125
Dunlap , CA 93621
(559) 338-2354

Mono
Foothill Yokuts
Choinumni

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589
Porterville , CA 93258
chairman@tulerivertribe-nsn.
(559) 781-4271
(559) 781-4610 FAX

Yokuts

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas , CA 93906
kwood8934@aol.com
831-443-9702

Foothill Yokuts
Mono
Wuksache

Ron Wermuth
P.O. Box 168
Kernville , CA 93238
warmoose@earthlink.net
(760) 376-4240 - Home
(916) 717-1176 - Cell

Tubatulabal
Kawaiisu
Koso
Yokuts

Tubatulabals of Kern Valley
Dr. Donna Begay, Tribal Chairwoman
P.O. Box 226
Lake Isabella, CA 93240
drbegay@aol.com
(760) 379-4590
(760) 379-4592 FAX

Tubatulabal

Kern Valley Indian Council
Julie Turner, Secretary
P.O. Box 1010
Lake Isabella, CA 93240
(661) 366-0497
(661) 340-0032 - cell

Southern Paiute
Kawaiisu
Tubatulabal
Koso
Yokuts

Wuksache Tribe
John Sartuche
1028 East "K" Avenue
Visalia , CA 93292
signsbysarch@aol.com
(559) 636-1136

Wuksache

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Outside Creek Bridge Replacement Project; located on Road 148 crossing Outside creek in Tulare County, California for which a Sacred Lands File search and Native American Contacts list were requested.

Jennifer Malone
637 E Lakeview
Woodlake , CA 93286
indianpopup@sbcglobal.net
559-564-2146 - home
559-280-0712 - cell

Wukchumni
Tachi
Yowlumni

Santa Rosa Tachi Rancheria
Lalo Franco, Cultural Coordinator
P.O. Box 8
Lemoore , CA 93245
(559) 924-1278 - Ext. 5
(559) 924-3583 - FAX

Tachi
Tache
Yokut

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Outside Creek Bridge Replacement Project; located on Road 148 crossing Outside creek in Tulare County, California for which a Sacred Lands File search and Native American Contacts list were requested.

State of California Department of Transportation

HISTORIC PROPERTY SURVEY REPORT

1. UNDERTAKING DESCRIPTION AND LOCATION

District	County	Route *(Local Agency)*	*Local Assistance Project Prefix*	Post Miles *(Project No.)*	Charge Unit *(Agreement)*	Expenditure Authorization *(Location)*
06	TUL	Tulare	5946	111		Bridge 46 C0186 on Road 148 crossing Outside Creek

Project Description:

The County of Tulare Resource Management Agency proposes to replace an existing, paved, 2-land timber bridge (No. 46 C0186) located on Road 148, crossing Outside Creek. The bridge will conform to the existing road width and will not include additional travel lanes (see Map 1 and 2).

2. AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) for the project was established in consultation with Professionally Qualified Staff John Whitehouse and Local Assistance Engineer James Perrault, on 23 January 2012. Bridge Number 46 C0186 is located in rural unincorporated Tulare County ~3 miles east of the City of Tulare and conveys Road 148 over Outside Creek (Map 1). The Area of Potential Effects (APE) will include the 45'–long bridge with an additional 700 feet on the north and 400 ft on the south of roadway reconstruction on each side of the bridge. Temporary construction easements and contractor staging areas are also included within the Project APE (see Map 2).

3. CONSULTING PARTIES / PUBLIC PARTICIPATION

√ Native American Heritage Commission (16 April 2012)

- Request for NAHC review submitted 13 April 2012 and response received 16 April 2012. While no Native American resources were identified by the NAHC, a list of local Native American tribes and individuals was provided for consultation. Letters were written to each individual describing the project; no responses were received as of 30 April 2012.

4. SUMMARY OF IDENTIFICATION EFFORTS

√	National Register of Historic Places	Month & Year: 1979-2002 & supplements
√	California Register of Historical Resources	Year: 2000 & supplemental information to date
√	California Inventory of Historic Resources	Year: 1976
√	California Historical Landmarks	Year: 1995 & supplemental information to date
√	California Points of Historical Interest	Year: 1992 & supplemental information to date
√	State Historic Resources Commission	Year: 1980-present, minutes from quarterly meetings

√ Archaeological Site Records

- Southern San Joaquin Valley Information Center, CSU Bakersfield, 17 April 2012

√ **Results:**

- There are no previously recorded cultural resources within the Project APE.

HISTORIC PROPERTY SURVEY REPORT

5. PROPERTIES IDENTIFIED

√ **Bridges listed as Category 5** in the Caltrans Historic Highway Bridge Inventory are present within the APE. Appropriate pages from the Caltrans Historic Bridge Inventory are attached.

6. LIST OF ATTACHED DOCUMENTATION

√ Project Vicinity, Location, and APE Maps
√ California Historic Bridge Inventory sheet
√ Archaeological Survey Report (ASR)
- C. Kristina Roper, 27 April 2012

7. HPSR to File

√ **No properties requiring evaluation** are present within the Project APE.

8. HPSR to SHPO

√ Not applicable.

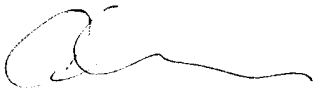
9. Findings for State-Owned Properties

√ Not applicable; project does not involve Caltrans right-of-way or Caltrans-owned property.

10. CEQA IMPACT FINDINGS

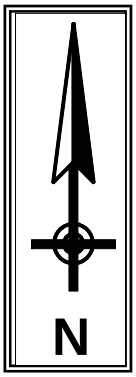
√ Not applicable; Caltrans is not the lead agency under CEQA.

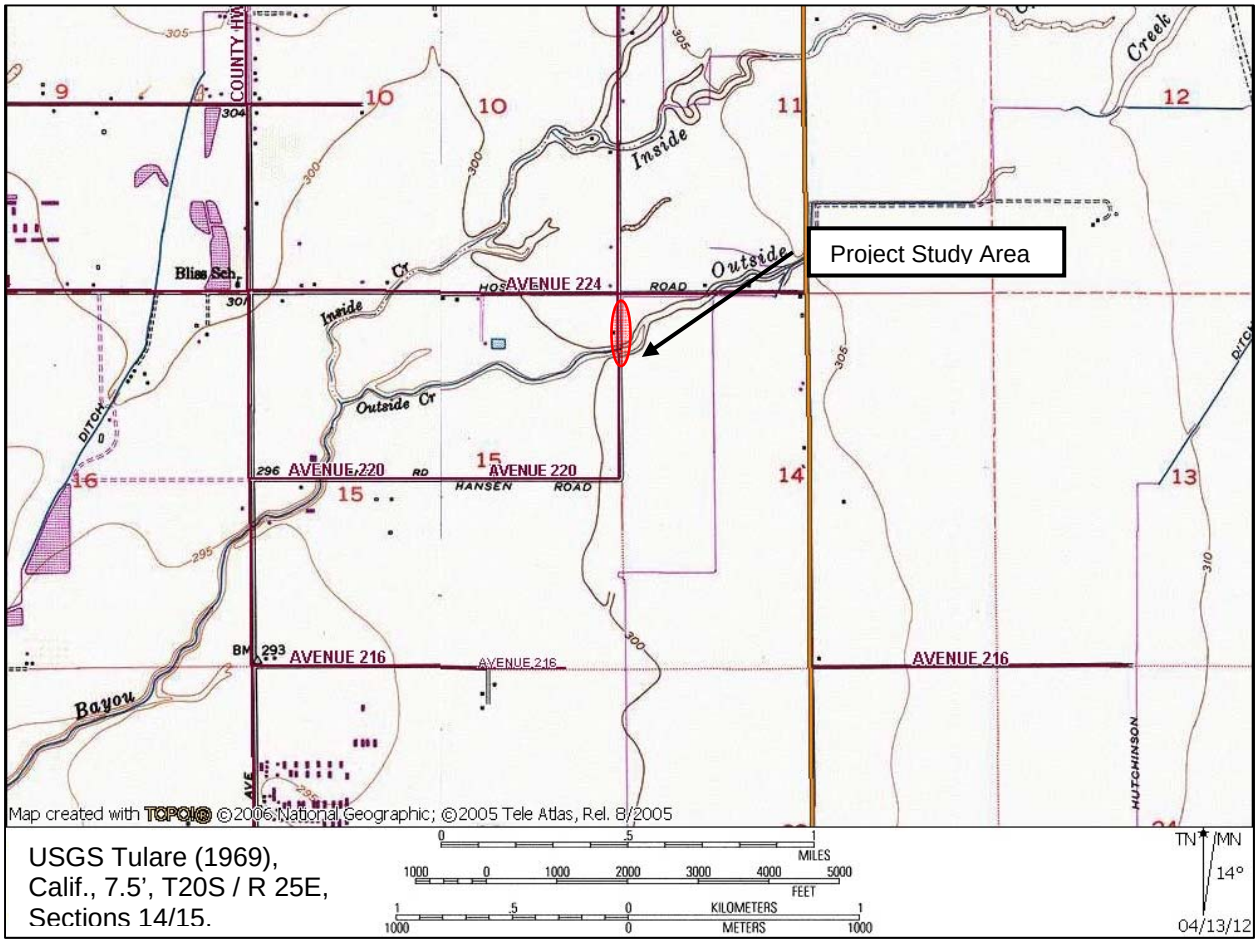
11. HPSR PREPARATION AND DEPARTMENT APPROVAL

Prepared by: *(sign on line)*		30/04/2012
Consultant / discipline:	*C. Kristina Roper, M.A., Registered Professional Archaeologist*	Date
Affiliation	*Sierra Valley Cultural Planning* *41845 Sierra Drive, Three Rivers, CA 93271*	
Reviewed for approval by: *(sign on line)*		
District 06 Caltrans PQS discipline/level:	Principal Architectural Historian Principal Investigator – Prehistoric Archaeology Principal Investigator – Historical Archaeology	Date
Approved by: *(sign on line)*		
District 06 EBC:	San Joaquin Valley Environmental Management Branch	Date

MAP 1. PROJECT VICINITY

Bridge 46 C0186, Outside Creek
Bridge Rehabilitation, Tulare County





USGS Tulare (1969),
Calif., 7.5', T20S / R 25E,
Sections 14/15.

Map 2. Project Location / Area of Potential Effects (APE).

Appendix D

Comments Received and Responses to Comments

The following pages were not included in the publicly circulated document. They are included here as part of the administrative record.

- Overview of comments and responses to the IS/MND
- Comment letters received during the public review period

Public Comments Received

Comment 1
From: California State Clearinghouse (January 22, 2013)

Summary: Acknowledgement that the County has complied with the State Clearinghouse review requirements for draft environmental documents pursuant to CEQA.

Response: Comment noted. No response necessary.

Comment 2
From: Caltrans District 6 (January 3, 2013)

Summary: Caltrans stated "No comment."

Response: No response necessary.

Comment 3
From: California Department of Fish & Wildlife (January 24, 2013)

Summary: CDFW recommends the following:

- Increasing the pre-construction survey area to ½ mile and increasing the no disturbance buffers if active protected raptor nests are found.
- If trees are removed, they should be replaced at a ratio of 3:1.
- Additional bat surveys should be conducted.
- Standard measures to protect swallows should be implemented.

Response: Clarifying information will be added to the Mitigated Negative Declaration (MND). Where modifications are made to the original MND, they will be reflected using ~~strikethrough~~ and underline as follows:

- **Raptors (Swainson's, white tailed kite, etc.):** The provision for the 1/2 mile survey area and no-disturbance buffer will be added. Mitigation Measures #3.4.2 and #3.4.3 are revised as follows:

  Mitigation Measure #3.4.2:

  If Swainson's hawks are detected to be nesting in trees within ~~600 feet~~ ½ mile of the construction area, construction will not occur within this zone until after young Swainson's hawks have fledged (this usually occurs by early June). The nest will be monitored by a qualified biologist to determine fledging date. If Swainson's hawks are found within the project area, the project site would be considered foraging habitat and compensation for foraging habitat would be

required by CDFW at a ratio of 0.75 to 1 (0.75 acre for every 1.0 acre adversely affected);

Mitigation Measure #3.4.3:

To protect breeding raptors and migratory birds, the following shall be implemented:

If grading or other ground clearing or construction activities occur during the avian breeding season (February 1 through August 15), then pre-construction surveys should be conducted within ~~500 feet~~ ½ mile of the project site in habitats that provide the potential for nesting raptors and migratory birds to occur. The survey should be conducted no more than 14 days prior to initiation of those activities. If more than 14 days lapse between the time of the pre-construction survey and the start of these activities, another preconstruction survey must be completed. During the nesting period, raptor nests shall be avoided by ~~500 feet~~ ½ mile, and other migratory bird nests shall be avoided by 250 feet. These distances will be clearly delineated with Environmentally Sensitive Area (ESA) fencing.

- **Bats:** Mitigation Measure #3.4.5 will be added as follows:

  Mitigation Measure #3.4.5: Although no signs of bats were discovered during the biological surveys conducted for the site, there still exists the possibility of protected bat species occurring at the site. The County will consult with CDFW to determine if additional surveys are warranted. If additional surveys are warranted, the County will work with CDFW to determine the extent of such surveys and will conduct such surveys prior to commencement of project activities. The surveys may consist of some or all of the following:

  - Using an appropriate combination of structure inspection, sampling, exit counts, and acoustic surveys, a biologist with expertise in bat biology and ecology and approved by the DFG shall survey the bridge structure and the surrounding area that may be impacted by the Project for bats. Surveys shall be conducted at the appropriate time of year to verify presence. If bats are found using the bridge, the biologist shall identify the bats to the species level, and evaluate the colony to determine its size and significance. The bat survey shall include: 1) the exact location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number of bats present at the time of visit (count or estimate); 3) each species of bat present shall be named (include how the species was identified); 4) the location, amount, distribution and age of all bat droppings shall be described and pinpointed on a map; and 5) the type of roost; night roost (rest at night while out feeding) versus a day roost (maternity colony) must also be clearly stated. The results of the bat survey shall be submitted to the DFG prior to the initiation of construction activities. The qualifications of the biologist shall be submitted to the DFG for approval.

- If the bridge to be replaced houses a maternity colony of bats, construction activities shall not occur during the recognized breeding season of the bat species found to be occupying the structure (typically between March 1 to October 1 for most species, but can vary depending upon location, elevation, and site specific conditions). Under no circumstances shall construction activities result in harm or death to any adult or juvenile bats.

- If bats or their sign are documented during surveys, a qualified biologist shall submit a design for bat exclusion to the DFG for review and approval. The design for bat exclusion shall be submitted to the DFG a minimum of 60 days in advance of the anticipated construction start date.

- A DFG approved biologist shall direct implementation of exclusionary devices designed to prevent bats from utilizing bridges before construction activities begin. Passage underneath the bridge (through the channel) shall not be impeded. An acceptable example is netting with 0.5-inch by 0.5-inch mesh or smaller. Exclusionary mesh netting must be thick plastic with no exposed overlap joints, applied tightly, regularly maintained, and shall only be installed seven (7) days (or earlier) after a survey has been conducted. If bats are found using any bridge, roost entrances shall be fitted with one-way doors that allow exits but prevent entrance for a period of several days to encourage bats to relocate.

- If surveys document that a bridge is occupied by a bat roost or colony, replacement bridges shall be constructed with similar structural features to encourage continued roosting by bats. Replacement roosts should have comparable thermal stability and durability, the same or similar search image, and the same cryptic roosting conditions as the roosts they replace. The design for replacement roost structures shall be submitted to the DFG for approval a minimum of 60 days in advance of anticipated construction start date.

- If replacement roosts are constructed, qualified biologist with specific expertise in bat biology and ecology, and approved by DFG, shall monitor replacement roost structures for sign of bat use the first, third, and fifth year after construction completion. A report detailing the monitoring effort shall be submitted to DFG for review.

- No gasoline or diesel engines shall be stored or operated under any bridge.

- Activities shall be limited to the period of daylight hours; no night work is authorized unless otherwise agreed to by the DFG.

- **Colonial Birds/Swallows:** Although construction of the bridge is expected to occur outside the nesting season (Aug 16 – Feb 14), Mitigation Measure #3.4.6 will be added as follows:

  Mitigation Measure #3.4.6:

  - If construction schedule allows, construction activities shall be avoided during the nesting season. If any work is anticipated on the bridge during the nesting period, appropriate protection and avoidance measures that would prevent nesting on portions of the structure that will cause a conflict between performing necessary work and nesting swallows shall be implemented:

    - Prior to February 15, existing nests shall be removed or exclusionary devices such as netting shall be used. Weekly scalping, between February 15 and August 15, of partially completed nests is permitted to discourage nesting.
    - If new nests are built or existing nests become occupied, then any work that would interfere with or discourage swallows from returning to their nests will not be permitted.
    - Swallows shall be allowed to nest on portions of the bridge where conflicts during construction are not anticipated.

  - Federal and State laws protect migratory birds, their occupied nests, and their eggs from destruction. The applicable Federal law is the Migratory Bid Treat Act (15 USC 703-711), 50 CFR Part 21, and 50 CFR Part 10. Protection under California Law is found in the Fish Game code Section 3503, 3513, and 3800. Any persons responsible for violating these laws may be arrested by a representative of the Department of the Interior or a California Department of Fish and Game warden. Any person found guilty shall be fined up to $10,000 or serve a six-month imprisonment, or both.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

January 22, 2013

Hector Guerra
Tulare County
5961 South Mooney Boulevard
Visalia, CA 93277-9394

Subject: Road 148 Outside Creek Bridge
SCH#: 2012121050

Dear Hector Guerra:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on January 18, 2013, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2012121050
Project Title Road 148 Outside Creek Bridge
Lead Agency Tulare County

Type MND Mitigated Negative Declaration

Description The bridge replacement consists of removing the existing structure of approximately 40 feet in length and 20.5 feet in width, and replacing it on 11 feet offset from its existing alignment, with a two-cell cast-in-place box culvert with each cell being 8 feet tall by 14 feet wide. The project will also include new roadway construction either side of the bridge for approximately 500 feet to 1000 from each bridge abutment, removing existing pavement, constructing concrete channel lining, and placing rock slope protection. Road 148 will be closed and temporary detour will be provided during the construction of this structure.

Lead Agency Contact

Name Hector Guerra
Agency Tulare County
Phone 559 624 7121 **Fax**
email
Address 5961 South Mooney Boulevard
City Visalia **State** CA **Zip** 93277-9394

Project Location

County Tulare
City Visalia
Region
Lat / Long 36° 11' 39" N / 119° 14' 32" W
Cross Streets Road 148 and Avenue 224
Parcel No.
Township 20S **Range** 25E **Section** 14&15 **Base** MDB&M

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use Land Use: School / Zoning: R-1 (Single Family Residential) / General Plan Desig: Quasi Public (Earlimart Community Plan)

Project Issues Air Quality; Biological Resources; Noise; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 4; Department of Parks and Recreation; Central Valley Flood Protection Board; Department of Water Resources; California Highway Patrol; Caltrans, District 6; Air Resources Board, Transportation Projects; Regional Water Quality Control Bd., Region 5 (Fresno); Department of Toxic Substances Control; Native American Heritage Commission; State Lands Commission

Date Received 12/20/2012 **Start of Review** 12/20/2012 **End of Review** 01/18/2013

TUL-137-21.46

(± 1.15 MI S.O. SR. 137)

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2012121050

Project Title: Road 148 Outside Creek Bridge
Lead Agency: Tulare County Resource Management Agency — Contact Person: Hector Guerra
Mailing Address: 5961 S Mooney Blvd — Phone: (559)624-7121
City: Visalia — Zip: 93277 — County: Tulare County

Project Location: County: Tulare — City/Nearest Community: Visalia
Cross Streets: Road 148 and Avenue 224 — Zip Code:
Longitude/Latitude (degrees, minutes and seconds): 36 ° 11 ' 39.62" N / 119 ° 14 ' 32.04" W Total Acres:
Assessor's Parcel No.: — Section: 14 &15 Twp.: 20S Range: 25E Base: MDB&M
Within 2 Miles: State Hwy #: — Waterways:
Airports: — Railways: — Schools:

Document Type:
CEQA: ☐ NOP ☐ Draft EIR — NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI — Other: ☐ Joint Document ☐ Final Document ☐ Other:
☐ Early Cons ☐ Supplement/Subsequent EIR
☐ Neg Dec (Prior SCH No.)
☒ Mit Neg Dec Other:

Local Action Type:
☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other:

Development Type:
☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type
☒ Other: Bridge Replacement

RECEIVED
DEC 20 2012
STATE CLEARING HOUSE

Project Issues Discussed in Document:
☐ Aesthetic/Visual ☐ Fiscal ☐ Recreation/Parks ☒ Vegetation
☐ Agricultural Land ☐ Flood Plain/Flooding ☐ Schools/Universities ☒ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☐ Archeological/Historical ☐ Geologic/Seismic ☐ Sewer Capacity ☐ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☐ Soil Erosion/Compaction/Grading ☐ Growth Inducement
☐ Coastal Zone ☒ Noise ☐ Solid Waste ☐ Land Use
☐ Drainage/Absorption ☐ Population/Housing Balance ☒ Toxic/Hazardous ☐ Cumulative Effects
☐ Economic/Jobs ☐ Public Services/Facilities ☒ Traffic/Circulation ☐ Other:

Present Land Use/Zoning/General Plan Designation:
Land Use: School/ Zoning: R-1 (Single Family Residential) /General Plan Desig: Quasi Public (Earlimart Community Plan)

Project Description: *(please use a separate page if necessary)*
The bridge replacement consists of removing the existing structure of approximately 40 feet in length and 20.5 feet in width, and replacing it on 11 feet offset from its existing alignment, with a two-cell cast-in-place box culvert with each cell being 8 feet tall by 14 feet wide. The project will also include new roadway construction either side of the bridge for approximately 500 feet to 1000 feet from each bridge abutment, removing existing pavement, constructing concrete channel lining, and placing rock slope protection. Road 148 will be closed and temporary detour will be provided during the construction of this structure.

CALTRANS DG: "NO COMMENT" 1/3/13

State Clearinghouse Contact: (916) 445-0613
State Review Began: 12-20-2012
SCH COMPLIANCE 1-18-2013

Please note State Clearinghouse Number (SCH#) on all Comments
SCH#: 2012121050
Please forward late comments directly to the Lead Agency

AQMD/APCD 37
(Resources: 12/22)

Project Sent to the following State Agencies

X	Resources		State/Consumer Svcs
	Boating & Waterways		General Services
	Coastal Comm		Cal EPA
	Colorado Rvr Bd		ARB: Airport/Energy Projects
	Conservation 4	X	ARB: Transportation Projects
X	Fish & Game # 1		ARB: Major Industrial Projects
	Delta Protection Comm		SWRCB: Div. Financial Assist.
	Cal Fire		SWRCB: Wtr Quality
	Historic Preservation		SWRCB: Wtr Rights
X	Parks & Rec	X	Reg. WQCB # 5F
X	Central Valley Flood Prot.	X	Toxic Sub Ctrl-CTC
	Bay Cons & Dev Comm.		Yth/Adlt Corrections
X	DWR		Corrections
	Cal EMA		
	Resources, Recycling and Recovery		
	Bus Transp Hous		
	Aeronautics		
X	CHP		
X	Caltrans # 6		
	Trans Planning		
	Housing & Com		
	Food & Agricul		
	Public Health		

Post-it® Fax Note 7671 | Date 1/3/13 | # of pages ▶ 1
To HECTOR GUERRA | From ALEC KIMMEL
Co./Dept. TULARE CO. | Co. CALTRANS DG
Phone # | Phone #
Fax # 730-2653 | Fax #

FACSIMILIE LEADER PAGE

California Department of Fish and Wildlife
Central Region
Region 4
1234 East Shaw Avenue
Fresno, California 93710
INFO (559) 243-4014 **FAX (559) 243-3004**

DATE: January 24, 2013 **PAGE 1 OF** 7

TO: Hector Guerra

Tulare County Resource Management Agency

FAX: (559) 730-2653 **PHONE:** (559) 624-7121

FROM: Steve Hulbert

INSTRUCTIONS: Original to follow by mail. Road 148 Bridge Replacement

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

January 24, 2013

Hector Guerra, Chief Planner
County of Tulare, Resource Management Agency
5961 South Mooney Boulevard
Visalia, California 93277

Subject: Initial Study/Mitigated Negative Declaration
Road 148 Outside Creek Bridge Replacement Project (Project)
Near the City of Tulare in Tulare County
SCH No. 2012121050

Dear Mr. Guerra:

On December 21, 2012, the California Department of Fish and Wildlife (Department) received a Notice of Completion & Environmental Document Transmittal from State Clearinghouse for the above referenced Project. The submittal included a copy of the *Initial Study/Mitigated Negative Declaration* (IS/MND) document and a *Natural Environment Study* (Study) report prepared by Quad Knopf in support of the Biological Resources Section of the IS/MND. As the Department understands the Project, approval will allow the replacement of the existing Road 148 bridge which spans Outside Creek east of the city of Tulare in Tulare County. The existing wooden bridge would be replaced with a cast-in-place reinforced two-cell box culvert bridge. The area of potential Project-related impacts is defined in both the IS/MND document and the Study report as the bridge and underlying and adjoining creekbed, the Road 148 alignment and adjoining shoulder backing approaching the bridge from both the north and south, and areas adjoining the shoulder backing which will be used for staging and laydown. The Project would involve the use of heavy equipment within the Road 148 right-of-way and within the Outside Creek channel beneath the Road 148 alignment for the demolition of the existing wooden bridge and the construction of the new concrete culvert bridge. The Project area is surrounded by agricultural land, no trees will be removed, and the 90-day Project is slated to begin in mid-September 2013.

The Study prepared by Quad Knopf assessed an area including and within 125 feet of the bridge, the north and south approaches to the Road 148 bridge, and two designated staging/laydown areas. A reconnaissance level biological survey of this area in late February 2012 did not observe special status plant or wildlife species to be present. However, the Study does state that there is the potential for special status wildlife species to exist or utilize the Project area. The Department notes that measures

outlined in the Study have been included in the IS/MND as mitigation measures to avoid, minimize, or mitigate Project-related impacts to these species, including: the federally endangered/State threatened San Joaquin kit fox (*Vulpes macrotis mutica*) and the State species of special concern American badger (*Taxidea taxus*). However, the Department has additional concerns regarding the potential Project-related impacts to bats, colonial birds, and State fully protected and listed raptors which may forage, roost, and/or nest at or near enough to the Project area to be impacted by Project related activities. Our comments follow.

Department Jurisdiction

Trustee Agency Authority: The Department is a Trustee Agency with responsibility under the California Environmental Quality Act (CEQA) for commenting on projects that could impact plant and wildlife resources. Pursuant to Fish and Game Code Section 1802, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, the Department is responsible for providing, as available, biological expertise to review and comment upon environmental documents and impacts arising from project activities, as those terms are used under CEQA (Division 13 [commencing with Section 21000] of the Public Resources Code).

Responsible Agency Authority: The Department has regulatory authority over projects that could result in the "take" of any species listed by the State as threatened or endangered, pursuant to Fish and Game Code Section 2081. If the Project could result in the "take" of any species listed as threatened or endangered under the California Endangered Species Act (CESA), the Department may need to issue an Incidental Take Permit (ITP) for the Project. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (sections 21001(c), 21083, Guidelines sections 15380, 15064, 15065). Impacts must be avoided or mitigated to less than significant levels unless the CEQA Lead Agency makes and supports a Statement of Overriding Consideration (SOC). The CEQA Lead Agency's SOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code Section 2080. The Project has the potential to reduce the number or restrict the range of endangered, rare, or threatened species (as defined in Section 15380 of CEQA).

Stream Alteration Agreement (SAA): The Department also has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource, pursuant to Fish and Game Code sections 1600 *et seq.* Mitigation Measure 3.4.7 set forth in the IS/MND requires the Project proponent to notify

the Department and obtain a SAA for the Project. The Department is required to comply with CEQA in the issuance or the renewal of an SAA. For additional information on notification requirements, please contact our staff in the Stream Alteration Program at (559) 243-4593.

Water Pollution: Pursuant to Fish and Game Code Section 5650, it is unlawful to deposit in, permit to pass into, or place where it can pass into the "Waters of the State" any substance or material deleterious to fish, plant life, or bird life, including non-native species. Mitigation Measure 3.4.7 set forth in the IS/MND requires the Project proponent obtain a Section 404 permit from the US Army Corps of Engineers and a Section 401 Permit from the State of California Regional Water Quality Control Board for the Project.

Fully Protected Species: The Department has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. "Take" of any fully protected species is prohibited, and the Department cannot authorize their "take". The white-tailed kite is a fully protected species that is known to occur in the Project area and could nest within ½-mile of the Project area. The CEQA document prepared for this Project should evaluate and address potential Project-related impacts to this species and should include appropriate species specific avoidance and minimization measures.

Bird Protection: The Department has jurisdiction over actions which may result in the disturbance or destruction of active nest sites or the unauthorized "take" of birds. Fish and Game Code sections that protect birds, their eggs, and nests include sections 3503 (regarding unlawful "take," possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the "take," possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful "take" of any migratory nongame bird). The Project will reportedly commence during the bird nesting season and appropriate avoidance and minimization measures for raptors and other nesting birds in the Project area should be included in the CEQA document prepared for this Project.

Project Recommendations

Listed and Fully Protected Raptors: Mitigation Measure 3.4.2 in the IS/MND proposes to avoid impacts to Swainson's hawk, in the event that construction activities occur during the nesting season, by conducting pre-construction surveys within ½-mile of the Project area in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (SWHA, TAC, 2000). If active nests are found, a 600-foot no disturbance buffer will be observed until after the young have fledged. Mitigation Measure 3.4.3 in the IS/MND proposes similarly to

avoid impacts to other raptors through the establishment of a 500-foot no-disturbance buffer in the event active nests are detected during pre-construction surveys.

The Department believes the State threatened Swainson's hawk and State fully protected white-tailed kite could utilize mature trees within ½-mile of the Project area for nesting. The Department recommends increasing the no-disturbance buffer for both species to ½-mile. Accordingly, both Mitigation Measure 3.4.2 and Mitigation Measure 3.4.3 should be revised to include the larger no-disturbance buffers to avoid Project-related impacts to both raptors. All no-disturbance buffers should remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. The presence of bird nest sites within the aforementioned buffers may warrant the use of a biological monitor during ground-disturbing activities there.

Bats: In the *Natural Environment Study*, Quad Knopf indicates that "manmade structures" within the Project area could provide habitat for the Western mastiff bat (*Eumops perotis californicus*), and that no active Western mastiff bat roosts were identified during the February 2012 survey. Quad Knopf also indicates that no part of the Project area provides suitable habitat for the pallid bat (*Antrozous pallidus*) and that no active pallid bat roosts were identified during the same survey. Both bat species are State species of special concern. Accordingly, no measures were set forth in the IS/MND to avoid, minimize, or mitigate to less than significant (under CEQA) the potential impacts to these or other bat species which could move into the Project area prior to Project implementation.

The pallid bat is one of four bat species which is commonly found on bridges in the central valley of California (Erickson, Gregg A., et al., 2002). The Department considers the existing bridge habitat for the pallid bat and considers the results of the February 2012 survey less than sufficient to determine whether bats will be impacted by the Project related activities. Using an appropriate combination of structure inspection, sampling, exit counts, and acoustic surveys, a wildlife biologist with specific expertise in bat biology and ecology should survey the bridge structure and the surrounding area that may be impacted by the Project for bats. Surveys should be conducted at the appropriate time of year and day to maximize detectability and verify presence. If bats are found using the bridge, the wildlife biologist should identify the bats to the species level, and evaluate the colony to determine its size and significance. The bat survey should include: 1) the exact location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number of bats present at the time of visit (count or estimate); 3) each species of bat present should be named (include how the species was identified); 4) the location, amount, distribution and age of all bat droppings should be described and pinpointed on a map; and 5) the type of roost; night roost (rest at night

while out feeding) versus a day roost (maternity colony) should also be clearly stated. The survey results can then be used to identify appropriate mitigation, minimization, and avoidance measures which should be included in the final CEQA document and inform any permitting needs. These identified measures should be made enforceable by inclusion in the final CEQA document and made conditions of Project approval.

Colonial Birds: Colonial birds such as the cliff swallow (*Petrochelidon pyrrhonota*) are known to utilize bridges in the vicinity of the Project area for nesting. The aforementioned Mitigation Measure 3.4.3 in the IS/MND proposes to avoid impacts to migratory birds during the nesting season by observing a 250-foot no-disturbance buffer between active nests and Project-related activities. However, the Department believes that a more thorough analysis of potential impacts to birds which may use the bridge, should be included in the IS/MND. If work cannot be avoided on the bridge when it would disturb nesting swallows, then surveys should be performed by a qualified wildlife biologist prior to February 15 to determine whether swallows are utilizing the bridge. If swallows are not present, then a qualified biologist should remove all existing nests which would be destroyed by the Project. The Department should be consulted prior to a swallow exclusion device is to be installed or in the event new nest building occurs in places where the nests could be disturbed or destroyed during bridge construction. These measures should be made enforceable by inclusion in the final CEQA document and made conditions of Project approval.

We appreciate the opportunity to provide guidance on this Project. If you have any questions on these issues, please contact Steven Hulbert, Environmental Scientist, at the address provided on this letterhead or by telephone at (559) 243-4014, extension 289.

Sincerely,

Jeffrey R. Single, Ph.D.
Regional Manager

cc: United States Fish and
Wildlife Service
Sacramento Office
2800 Cottage Way, W-2605
Sacramento, California 95825

Literature Cited

Erickson, Gregg A., et al, 2002. Bat and Bridges Technical Bulletin (Hitchhiker Guide to Bat Roosts), California Department of Transportation, Sacramento CA. 2002

SWHA TAC, 2000. *Recommended Timing and Methodology for Swainson's Hawk Nesting Survey in California's Central Valley*. Swainson's Hawk Technical Advisory Committee. May 31, 2000.

USFWS, 1999. *Conservation Guidelines for the Valley Elderberry Longhorn beetle*. U.S. Fish and Wildlife Service, 1999.

BEFORE THE BOARD OF SUPERVISORS
COUNTY OF TULARE, STATE OF CALIFORNIA

IN THE MATTER OF A MITIGATED NEGATIVE DECLARATION FOR THE ROAD 148 OUTSIDE CREEK BRIDGE REPLACEMENT) **Resolution No. 2013-0078**

UPON MOTION OF SUPERVISOR WORTHLEY, SECONDED BY SUPERVISOR ENNIS, THE FOLLOWING WAS ADOPTED BY THE BOARD OF SUPERVISORS, AT AN OFFICIAL MEETING HELD FEBRUARY 26, 2013, BY THE FOLLOWING VOTE:

AYES: SUPERVISORS ISHIDA, VANDER POEL, COX, WORTHLEY AND ENNIS
NOES: NONE
ABSTAIN: NONE
ABSENT: NONE

BOARD OF SUPERVISORS * TULARE COUNTY, CAL. *

ATTEST: JEAN M. ROUSSEAU
COUNTY ADMINISTRATIVE OFFICER/
CLERK, BOARD OF SUPERVISORS

BY: _____
Deputy Clerk

1. Held a Public Hearing at 9:30 a.m. on February 26, 2013, to certify that the Mitigated Negative Declaration (Attachment B) for the Road 148 Outside Creek Bridge Replacement Project is complete and adequate and has been completed in compliance with the California Environmental Quality Act and the State California Environmental Quality Act Guidelines;

2. Found that the Project is accurately described in the Mitigated Negative Declaration;

3. Approved the Project as described in the Mitigated Negative Declaration;

4. Found that significant impacts could result from the Project, but are mitigated to a level that is less than significant by Project features or deliberate mitigation measures;

5. Approved and adopted the Mitigated Negative Declaration, including the accompanying Mitigation Monitoring Plan; and

6 Authorized the Environmental Assessment Officer, or designee, to sign and file the Notice of Determination with the County Clerk.

RMA

DAY
2/26/13

NOTICE OF DETERMINATION

Fee Exempt per Government Code Section 6301

FILED
TULARE COUNTY
MAR 0 1 2013
ROLAND P. HILL
ASSESSOR/CLERK RECORDER
BY:

To: Tulare County Clerk
Room 105, Courthouse
221 South Mooney Blvd.

Lead Agency: Tulare County Resource Management Agency
5961 South Mooney Blvd.
Visalia, CA 93277

Applicant(s): ~ County of Tulare; Public Works, (559)624-7000

Subject: **Filing of Notice of Determination in Compliance with Section 21108 or 21152 of the Public Resources Code**

Project Title: Road 148 Outside Creek Bridge Project

State Clearinghouse Number: SCH #2012121050

Contact Person: Hector Guerra, Chief Environmental Planner **Telephone Number:** 559-624-7121

Project Location: Bridge over Outside Creek, approximately 3 miles east of the City of Tulare, on Rd. 148, South of Ave. 224.

Project Description/Case File No: Replacement of existing paved two-lane bridge located on Road 148, crossing Outside Creek (Bridge No. 46C-0186). The bridge replacement will require removing the existing structure of approximately 40 feet in length and 20.5 feet in width. The project will also include new roadway construction on either side of the bridge for approximately 500 feet to 1000 feet from each bridge abutment, removing existing pavement, constructing concrete channel lining, and placing rock slope protection. Road 148 will be closed and temporary detour will be provided during the construction of this structure.

This is to advise that the TULARE COUNTY BOARD OF SUPERVISORS has approved the above-described project on **February 26, 2013** and has made the following determinations regarding the above-described project:

1. The project ( ) will (X) will not have a significant adverse impact on the environment.
2. ( ) A Final Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.

   (X) A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.

   The environmental document and record of project approval may be examined at:
   5961 S Mooney Blvd., Visalia CA 93277
3. Mitigation Measures (X) were ( ) were not made a condition of approval of the project.
4. A Statement of Overriding Considerations ( ) was (X) was not adopted for the project.

By: _____
Hector Guerra, Chief Environmental Planner

(X) Dept of Fish & Game Fees Req'd
( ) E.I.R.
(X) MND
( ) N.D.

By: _____
Michael C. Spata, Secretary, Tulare County Planning Commission

Filed with the Tulare County Clerk on 2/28, 2013.

Cc: California. Dept. of Fish & Game, 1416 Ninth St., 12th Floor, Sacramento, CA 95814
Note: Authority cited: Section 21083, Public Resource Code; Reference: Sections 21108, 21152 and 21167, Public Resource Code.