Chapter 3
Changes to the Proposed Project

Introduction

This chapter describes changes to the proposed Project since preparation and circulation of the Draft EIR. This chapter also describes the analysis conducted on the project changes to determine whether the changes result in a new significant impact or substantially increase the severity of an impact that cannot be mitigated to less-than-significant levels by implementation of the mitigation measures already included in the EIR, pursuant to CEQA guidelines Section 15088.5. Changes to the content of the Draft EIR are included in Chapter 4, "*Changes and Errata to the Draft EIR*."

Changes to Proposed Project

Since preparation of the Draft EIR, the Project design was slightly revised as a result of additional engineering data obtained after release of the Draft EIR. The changes consist of a change in design of the access roads needed to construct the bridge supports and abutments on both sides of the South Fork American River, resulting in limited changes in the location of some temporary and permanent impact areas. The changes result in some areas that were to be potentially permanently or temporarily impacted by construction no longer being impacted, and added small areas to the project footprint due to relocation of the roads.

On the Placerville side of the river, the access road was shifted slightly to the west on a similar alignment, but one that more closely conformed to the slope contour. The disturbance limits were expanded to the west to encompass the upper portions of the adjusted access road alignment. And, the disturbance area along the access road further into the canyon were slightly widened near the hairpin turn and were slightly reduced closer to the river. The permanent impact area just south of the Placerville-side bridge abutment was reduced. On the Swansboro side of the river, the access road was shortened, reducing the disturbance area along the Project's southwest side and increasing it at the new connection point to the existing roadway, downslope. On both sides of the river, the disturbance areas near the bridge's connection points with the existing roadway were reduced. The changes in the footprint did not change the proximity of the Project to existing land uses.

The changes to the Project do not affect the purpose and objective of the project, roadway and bridge design, construction method, or construction schedule as described in Draft EIR Chapter 2. The updated design resulted in small changes in the Project boundary and footprint and a change in the locations of certain impacts as a result. The total square footage of temporary impacts was reduced by 100 square feet and the total square footage of permanent impacts remains the same.

The new project footprint is shown on the version of Figure 2-2 included in Chapter 4, *Changes and Errata to the Draft EIR*. Because the changes in the project are of such a small magnitude and limited to changes in the project footprint and access road design, the description of the proposed Project included in Chapter 2 of the Draft EIR is still accurate and no text changes are necessary in that Chapter to reflect the change in Project footprint.

Analysis of Changes to Proposed Project

The setting and impact analysis described in the Draft EIR was reviewed with consideration of the change to the Project footprint to determine whether the changes result in a new significant impact or substantially increase the severity of an impact that cannot be mitigated to less-than-significant levels by implementation of the mitigation measures already included in the EIR, pursuant to CEQA Guidelines Section 15088.5. The analysis is organized by resource topic, below.

Aesthetics

No scenic vistas, scenic resources, or scenic highways are added to the Project area as a result of the change in the Project design. The changes in the project do not affect the conclusions presented in Impacts AES-1 (Have a substantial adverse effect on a scenic vista) and AES-2 (Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway).

The new bridge and roadway approach locations are unchanged and the character and quality of the Project area remains the same. The proposed changes in the alignments of access roads are minor and do not affect new or different types of land resources. The access roads still descend into the South Fork American River canyon from the existing Mosquito Road to allow access for construction equipment and materials at the project site. Changes in views caused by removal of vegetation and construction of the Project will be of the same nature and intensity as originally analyzed in the Draft EIR. Impact AES-3 (Substantially degrade the existing visual character or quality of the site and its surroundings) remains less than significant because the locations of the redesigned access roads are similar in nature to the original locations.

The Project's construction methodology, intensity, and duration are unchanged, including methods that could require high-intensity lighting if nighttime construction is necessary. No change to the potential for creation of glare or operational lighting is proposed. Because of this, the analysis presented in Impact AES-4 (Creation of a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area) is still valid and the impact remains less than significant.

Air Quality

The analysis of the Project's effects on air quality relies on calculations of estimated emissions based on ground disturbance estimates, construction equipment types and the duration of their use, and forecasts of traffic volumes. The construction methodology, intensity, and duration are unchanged. The overall Project disturbance footprint is reduced by 100 square feet with the change in Project design, and the change in the Project footprint does not change the proximity of the Project to sensitive receptors. The forecasted traffic volumes are unchanged. Because of these factors, the change in the Project footprint does not result in a new significant air quality impact or substantially increase the severity of an air quality impact.

The analysis related to concentrations of diesel particulate matter has been revised to clarify the threshold of significance for fuel-based screening, better indicate and clarify the qualitative health risk assessment analysis used for assessing concentrations of diesel particulate matter, to clarify the reference to the El Dorado County Air Quality Management District's Guide to Air Quality Assessment, and to include the qualitative analysis of concentrations of diesel particulate matter

omitted from the Draft EIR Impact AQ-4 The conclusions presented in Impacts AQ-1 (Conflict with or obstruct implementation of the applicable air quality plan), AQ-2 (Violate any air quality standard or contribute substantially to an existing or projected air quality violation), AQ-3 (Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is a nonattainment area for an applicable federal or state ambient air quality standard [including releasing emissions that exceed quantitative thresholds for ozone precursors]), AQ-4 (Expose sensitive receptors to substantial pollutant concentrations), and AQ-5 (Create objectionable odors affecting a substantial number of people) are still valid.

Biological Resources

Draft EIR Figure 3, Impacts on Natural Communities in the Biological Study Area, erroneously numbered and corrected to 3.3-1, has been updated to reflect the change in the Project footprint. The revised figure is included in Chapter 4, *Changes and Errata to the Draft EIR*. The new footprint was compared to the mapped land cover types. The changes in the Project footprint do not change the land cover types affected, the biological resources within the biological study area, or types of impacts that could be caused by the Project. However, the minor changes in location of temporary and permanent impacts changed the potential acreage of temporary and permanent loss of interior live oak woodland. The update to the design did not change the acres of impacts on other sensitive land cover types in the Project area or affect the impacts for other biological resource topics discussed in the Draft EIR. The changes in impacts on sensitive land cover types are summarized in Table 3-1, below, and included in Chapter 4, *Changes and Errata to the Draft EIR*.

Table 3-1. Changes in Impacts on Sensitive Land Cover Types

	Interior Live Oak Woodland (acres)*		Willow Thicket Wetland (acres)		Intermittent Stream (acres)		Perennial Stream (acres)	
Permanent Impacts	Draft EIR	6.56	Draft EIR	0.06	Draft EIR	0	Draft EIR	0
	Increase of	0.11	No change		No change		No change	
	Current	6.67	Current	0.06	Current	0	Current	0
Temporary Impacts	Draft EIR	7.46	Draft EIR	0	Draft EIR	0	Draft EIR	0
	Increase of	0.16	No change		No change		No change	
	Current	7.62	Current	0	Current	0	Current	0
Total Impacts	*Draft EIR*	*14.02*	*Draft EIR*	*0.06*	*Draft EIR*	*0*	*Draft EIR*	*0*
	Increase of	*0.27*	*No change*		*No change*		*No change*	
	Current	*14.29*	*Current*	*0.06*	*Current*	*0*	*Current*	*0*

These slight increases in impacts can be mitigated to less-than-significant levels through implementation of the mitigation measures included in the Draft EIR, as shown in Table 3-2, below.

Table 3-2. Biological Resource Impact Summary

Draft EIR Biological Resource Impacts	Result of Project Changes	Draft EIR Mitigation Measures	Level of Significance*
Impact BIO-1: 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 CDFW or USFWS	Slight increase in permanent and temporary impacts on interior live oak woodland, which provides nesting habitat for bald eagle, California spotted owls and migratory birds	BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, BIO-10	Less than significant
Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS	Slight increase in permanent and temporary impacts on interior live oak woodland, a sensitive natural community	BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, BIO-7, BIO-11	Less than significant
Impact BIO-3: Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the CWA [including, but not limited to, marshes, vernal pools, coastal wetlands, etc.], through direct removal, filling, hydrological interruption, or other means	No change	BIO-1, BIO-2, BIO-3, BIO-4, BIO-6	Less than significant
Impact BIO-4: 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	No change	None necessary	Less than significant
Impact BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as the County General Plan oak canopy retention standards	No change	None necessary	No impact
Impact BIO-6: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan	No change	None necessary	No impact
Impact BIO-7: Cause the introduction or spread of invasive plant species	No change	BIO-1, BIO-2, BIO-3, BIO-12	Less than significant

* Significance level is after application of mitigation measures.

As summarized in Table 3-2, the changes to the Project footprint do not result in a new significant impact or substantially increase the severity of a biological impact that cannot be mitigated to less-than-significant levels with implementation of the mitigation measures already included in the Draft EIR. The revisions in impact acreages are described in Chapter 4, *Changes and Errata to the Draft EIR*. No other changes to the analysis or conclusions in the Draft EIR are necessary.

Cultural Resources

Because the revisions to the Project footprint are minor and in close proximity to the original design, the areas in which they are located have the same archaeological and historical context as the Project area presented in the Draft EIR. The additions to the Project area are extensions of original Project areas adjacent to the roadway and staging areas. The record searches conducted for the Project to identify known resources in the project area included the small areas added to the Project footprint. No additional known cultural or historical resources are located in the new areas of the footprint. The project would still have no impact on historical resources. And, because of the steepness of the terrain, the additions to the Project area have low potential for buried archaeological deposits, from either the prehistoric or historic-period and do not result in a change in findings or conclusions in the Draft EIR regarding the potential for encountering cultural resources.

The conclusions presented in Impacts CUL-1 (Cause a substantial adverse change in the significance of an archaeological resource that is an historical resource as defined in Section 15064.5), CUL-2 (Cause a substantial adverse change in the significance of a built environment resource that is an historical resource pursuant to Section 15064.5), and CUL-3 (Disturb any human remains, including those interred outside of formal cemeteries) are still valid. No changes to the analysis or conclusions in the Draft EIR are necessary.

Geology, Soils, Minerals, and Paleontological Resources

The revisions to the Project footprint are minor and in close proximity to the original design, and therefore the areas in which they are located have the same geologic and paleontological context as the Project area. The change in the Project footprint does not result in a new significant impact or substantially increase the severity of an impact that cannot be mitigated to less-than-significant levels because the Project's roadway and bridge design and construction method are unchanged. Further, the proposed changes in the alignments of access roads do not affect new or different types of geologic features. Therefore, there is no change in impacts related to geology, soils, minerals, or paleontological resources.

The conclusions presented in Impacts GEO-1 (Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: (1) 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; (2) strong seismic ground shaking; (3) seismic-related ground failure, including liquefaction; and (4) landslides), GEO-2 (Result in substantial soil erosion or the loss of topsoil), GEO-3 (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 an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse), GEO-4 (Result in fracturing and/or erosion from special construction methods that could result in unstable geologic or soil conditions), GEO-5 (Be located on expansive soil, as defined in Section 1803.5.3 of the 2013 CBSC, creating substantial risks to life or property), GEO-6 (Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater), GEO-7 (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), and GEO-8 (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), are

still valid. Mitigation Measure GEO-1 would still reduce the potential for significant impacts that could be caused by unstable soils. No additional mitigation is needed. No change to the analysis or conclusions in the Draft EIR are necessary.

Greenhouse Gas Emissions

The analysis of the Project's effects on greenhouse gas emissions relies on calculations of estimated emissions based on ground disturbance estimates, construction equipment types and the duration of their use, and forecasts of traffic volumes. The construction methodology, intensity, and duration of the Project are unchanged. The overall Project disturbance footprint is reduced by 100 square feet with the change in project design, and the change in the Project footprint does not change the proximity of the Project to sensitive receptors. The forecasted traffic volumes are unchanged. Therefore, the analysis of greenhouse gas emissions presented in the Draft EIR is not affected by the change in the Project footprint and no new significant impact or substantial increase in the severity of an impact related to greenhouse gas emissions would result. The conclusions presented in Impacts GHG-1 (Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment) and GHG-2 (Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs) are still valid. No change to the analysis or conclusions in the Draft EIR are necessary.

Hazards and Hazardous Materials

The Draft EIR describes hazards and hazardous materials in relation to the proposed Project and the Project area. The revisions to the Project footprint are minor and in close proximity to the original design, and therefore do not change the setting for the analysis of hazards or hazardous materials in the Project area. Because the Project's roadway and bridge design and construction methods are unchanged, the minor change in the Project footprint does not result in a new significant impact or substantially increase the severity of an impact related to hazards or hazardous materials that cannot be mitigated to less-than-significant levels.

The conclusions presented in Impacts HAZ-1 (Creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials), HAZ-2 (Creation of 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), HAZ-3 (Release of hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school), HAZ-4 (Location on a site that is on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and the resultant creation of a significant hazard to the public or the environment), HAZ-5 (Location within an airport land use plan area or, where such a plan has not been adopted, location within 2 miles of a public airport or public use airport, resulting in a safety hazard for people residing or working in the Project area), HAZ-6 (Location within the vicinity of a private airstrip, resulting in a safety hazard for people residing or working in the planning area), and HAZ-7 (Impairment of or physical interference with implementation of an adopted emergency response plan or emergency evacuation plan) are unchanged.

Impact HAZ-8 (Exposure of 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) is also unchanged and can still be reduced to a less-than-

significant level with implementation of Mitigation Measure HAZ-1. No additional mitigation is needed. And, no changes to the analysis or conclusions in the Draft EIR are necessary.

Hydrology, Water Quality, and Water Resources

The analysis in the Draft EIR of the Project's effects on hydrology, water quality, and other water resources considered the Project's proposed changes to surface water features such as increases in impervious surfaces and changes in drainage patterns, the potential to affect surface water and groundwater quality, the potential to effect groundwater supply, and flood-related concerns. The minor revisions to the Project footprint do not change the amount of new impervious surfaces proposed or the proposed runoff patterns and controls and treatment for stormwater runoff. The Project's roadway and bridge design and construction methods are unchanged and the changes to the location of access roads are minor and are not located in areas with different drainage patterns. Therefore, the changes to the project footprint do not change the impact conclusions in the Draft EIR.

The conclusions presented in Impacts WQ-1 (Potential to violate any water quality standards or waste discharge requirements), WQ-2 (Potential to 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 that would not support existing land uses or planned uses for which permits have been granted]), WQ-3 (Potential to 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 that would result in substantial erosion of siltation on- or off-site), WQ-4 (Potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site), WQ-5 (Creation or contribution of runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff), WQ-6 (Potential to otherwise substantially degrade water quality), WQ-7 (Placement of housing within a 100-year flood-hazard area, as mapped on a federal Flood Hazard Boundary or FIRM or other authoritative flood-hazard delineation map), WQ-8 (Placement within a 100-year flood-hazard area structures that would impede or redirect floodflows), WQ-9 (Exposure of 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), and WQ-10 (Contribution to inundation by seiche, tsunami, or mudflow) are still valid. No changes to the analysis or conclusions in the Draft EIR are necessary.

Land Use Planning and Agricultural Resources

Three of the figures in the Draft EIR Section 3.9, *Land Use Planning and Agricultural Resources,* have been updated to reflect the updated project footprint:

- Figure 3.9-1, Land Use and Agriculture Study Area, shows the Project in relation to the land use and agricultural study area.
- Figure 3.9-3, Land Uses in the Study Area, shows the Project in relation to land use designations.
- Figure 3.9-4, Agricultural Resources in the Study Area, shows the Project in relation to farmland designations.

The revised figures are included in Chapter 4, *Changes and Errata to the Draft EIR*. No new land uses, different zoning, or farmland types are added to the Project area or affected by the Project.

Because the new bridge and roadway approach locations are unchanged, and the proposed change in the alignments of access roads are minor and do not affect new or different types of land uses or zoning, there is no change in the conclusions presented in Impacts LU-1 (Physical division of an established community), Impact LU-2 (Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect), and Impact LU-3 (Conflict with an applicable habitat conservation plan or natural community conservation plan). There would still be no impact related to these topics.

Due to the minor change in the Project footprint, the amount of Farmland of Local Importance (nonprime) affected is increased by 0.11 acre, from 0.83 acre to 0.94 acre. However, the change in area of farmland affected by the Project does not change the conclusions of Impact LU-4 (Conversion of Important Farmland to nonagricultural use), LU-5 (Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract), or Impact LU-6 (Other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to nonagricultural use) because of the small size of the increase, which still results in the amount of farmland converted being less than an acre, and because there is no change in zoning and no land under Williamson Act contract is affected. Temporary easements on grazing lands would still be necessary but would not convert farmland to nonagricultural use. Further, no portion of the affected land designated as Farmland of Local Importance is currently used as farmland, and much of it is on sloped land that would make agricultural activities difficult. The impacts remain less than significant and no mitigation is required.

The minor change in the project footprint does not result in a new significant impact or substantially increase the severity of an impact related to land uses, land use planning, or agricultural resources. The revisions in the figures and in farmland impact acres are described in Chapter 4, *Changes and Errata to the Draft EIR*. No changes to the conclusions in the Draft EIR are necessary.

Noise and Vibration

The analysis of the Project's potential to change levels of noise and vibration relies on calculations of noise levels from both construction and operation of the proposed Project. Construction equipment types and the duration of their use, and forecasts of traffic volumes, are used in the analysis. The construction methodology, intensity, and duration are unchanged and the change in the Project footprint does not change the proximity of the Project to receptors sensitive to changes in noise or vibration levels. The forecasted traffic volumes are unchanged. Therefore the conclusions presented in Impacts NOI-1 (Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies), NOI-2 (Expose persons to or generate excessive groundborne vibration or groundborne noise levels), NOI-3 (Result in a substantial permanent increase in ambient noise levels in the Project vicinity, above levels existing without the Project), NOI-4 (Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity, above levels existing without the Project), NOI-5 (Be located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport and expose people residing or working in the Project area to excessive noise levels), and NOI-6 (Be located in the vicinity of a private airstrip and expose people residing or working in the Project area to excessive noise levels) are still valid. And,

Mitigation Measure NOI-1 remains adequate to reduce potentially significant temporary changes in noise levels caused by construction activities to less-than-significant levels. The minor changes to the Project footprint do not result in a new significant impact or substantially increase the severity of an impact related to noise and vibration. No changes to the analysis or conclusions in the Draft EIR are necessary.

Public Services and Utilities

The updated design resulted in small changes in the Project boundary and footprint but does not include changes that affect additional public services or utilities because no new land uses are affected and the roadway and bridge design, construction method, and construction schedule, are unchanged. The Project's effects on public services or utilities located in the Project area remain the same as described in the Draft EIR.

The conclusions presented in Impacts PSU-1 (Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection; police protection; schools; other public facilities), PSU-2 (Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board), PSU-3 (Require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects), PSU-4 (Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects), PSU-5 (Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed), PSU-6 (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), PSU-7 (Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs), PSU-8 (Comply with federal, state, and local statues and regulations related to solid waste), PSU-9 (Result in long-term disruption of telecommunications services), and PSU-10 (Lead to a wasteful, inefficient, and unnecessary usage of energy) are still valid. The minor changes to the Project footprint do not result in a new significant impact or substantially increase the severity of an impact related to public services or utilities. No changes to the analysis or conclusions in the Draft EIR are necessary.

Recreation

The updated design resulted in small changes in the Project boundary and footprint and a minor change in the locations of certain impacts. However, the changes are unrelated to any recreational use and the footprint changes are not located near any existing recreational facilities and do not affect the South Fork American River. The footprint and access road changes also do not cause an increase in use of or demand for recreational facilities because the purpose and objective of the Project, roadway and bridge design, construction method, and construction schedule in the Draft EIR did not involve an increase or change to any existing recreational use of the area and this did not change through the minor footprint changes. The conclusions presented in Impacts REC-1 (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) and REC-2 (Include

recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment) are still valid. No mitigation is necessary. The changes to the Project footprint do not result in a new significant impact or substantially increase the severity of an impact to the deterioration of existing recreational facilities or to the environment from recreational uses. No changes to the analysis or conclusions in the Draft EIR are necessary.

Traffic and Circulation

The analysis of the Project's potential to change traffic and circulation relies on an assessment of anticipated construction activities, the proposed Project design, and existing and future traffic volumes. The construction methodology, intensity, and duration, as well as the proposed management of traffic during construction, are unchanged by the minor changes in the Project footprint. The forecasted traffic volumes are also unchanged. Because of these factors, the changes in the Project footprint do not change the Project's effects related to traffic and circulation. The forecasted traffic volumes are unchanged. Therefore, the conclusions presented in Impacts TRA-1 (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), TRA-2 (Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the County congestion management agency for designated roads or highways), TRA-3 (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), TRA-4 (Substantially increase hazards because of a design feature [e.g., sharp curves or dangerous intersections] or incompatible uses [e.g., farm equipment]), TRA-5 (Result in inadequate emergency access), and TRA-6 (Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities or otherwise decrease the performance or safety of such facilities) are still valid. The minimal changes to the Project footprint do not result in a new significant impact or substantially increase the severity of an impact related to traffic and circulation. No changes to the analysis or conclusions in the Draft EIR are necessary.

Cumulative Impacts

Draft EIR Section 5.2.1 contains the analysis and cumulative impact discussion for the proposed Project. The conclusion presented in the Draft EIR found that that the Project's contribution to a cumulative impact on the following resources would not be considerable.

Aesthetics
Air quality
Biological resources (wetlands and other sensitive land cover types)
Cultural resources
Geology, soils, minerals, and paleontological resources
Greenhouse gas emissions
Hazards and hazardous materials
Hydrology, water quality, and water resources
Land use planning
Noise and vibration
Public services and utilities
Recreation
Traffic and circulation

The Project's construction methodology, intensity, and duration are unchanged by the minor changes in the Project footprint. Further, as a result of the modified design, the total square footage of temporary impacts was reduced by 100 square feet and the total square footage of permanent impacts did not change. Because the changes to the Project footprint are minor and do not result in a new significant impact or substantially increase the severity of an impact related to these resource areas that cannot be mitigated to less-than-significant levels, as described in the resource topic sections above, there is no change in the conclusions for cumulative impacts on these resource areas.

The Draft EIR also assessed the Project's potential for a contribution to a cumulative impact on farmland and special-status wildlife species. Due to the change in the Project footprint, the amount of Farmland of Local Importance (nonprime) affected is increased by 0.11 acre, from 0.83 acre to 0.94 acre. However, because of the small size of the increase as well as the small amount of proposed conversion in relation to the total farmland in El Dorado County (less than 0.001 percent converted by the Project), the Project's contribution to the cumulative loss of farmland remains less than cumulatively considerable. The revisions in impact acres are described in Chapter 4, *Changes and Errata to the Draft EIR*.

Similarly, the increases in permanent impacts of 0.11 acre and temporary impacts of 0.16 acre of interior live oak woodland, habitat for bald eagle, California spotted owls, and migratory birds, are minor and can be mitigated to less-than-significant levels with implementation of the mitigation measures identified in the Draft and Final EIR under the impact discussions regarding habitat loss for these species. Because of this, the Project's contribution to the cumulative loss of interior live oak woodland as habitat for special-status wildlife species remains less than cumulatively considerable. The revisions in impact acres are described in Chapter 4, *Changes and Errata to the Draft EIR*. The Project's contribution to cumulative impacts on other habitats and species is unchanged because there was no change in temporary or permanent impacts for other habitat types and the construction methodology, intensity, and duration are unchanged by the changes in the Project footprint.

The changes to the Project footprint do not result in a new significant cumulative impact or substantially increase the severity of a cumulative impact. No changes to the analysis or conclusions in the Draft EIR are necessary.

Conclusion

Based on the review of the analysis described in the Draft EIR with consideration of the changes to the Project footprint, it was determined that no new significant impacts would occur nor would there be a substantial increase in the severity of impacts that cannot be mitigated to less-than-significant levels by implementation of the mitigation measures already included in the Draft EIR. No changes to conclusions of the Draft EIR are necessary. Pursuant to CEQA Guidelines Section 15088.5, none of the thresholds for recirculation of the Draft EIR are met. Changes to the contents of the Draft EIR to address the changes in the Project footprint are described in Chapter 4, *Changes and Errata to the Draft EIR*.

Chapter 4
Changes and Errata to the Draft EIR

This chapter describes revisions that have been made to the Draft EIR. Underlining indicates where additions were made to the original text. ~~Strikeout~~ indicates where the original text was deleted.

CEQA Guidelines Section 15132 provides that a Final EIR must include, among other things, the Draft EIR or a revision of the draft. This chapter identifies the text changes that have been made to the Draft EIR. The changes are arranged by the chapter or section of the Draft EIR in which they are found and referenced by page number. For the reader's convenience, the changes are presented in the context of the paragraph in which they are found. Additions are shown as underlined text; deletions are shown as strikethroughs.

As described in Chapter 3, *Changes to the Proposed Project*, since preparation of the Draft EIR, the project design was updated slightly to take into consideration the latest engineering concepts. This resulted in small changes in the project boundary and footprint, and a minor change in the locations of certain impacts. Based on the review of the analysis described in the Draft EIR, summarized in Chapter 3, it was determined that no new significant impacts would occur nor would there be a substantial increase in the severity of impacts that cannot be mitigated to less-than-significant levels by implementation of the mitigation measures already included in the EIR. No change to the analysis or conclusions in the Draft EIR are necessary. Changes to the Draft EIR as a result of the project footprint change are included in this chapter.

At the time the Draft EIR was written and distributed to the public, the outcome of the existing bridge was undetermined as the existing bridge was not a part of the Project and could not be maintained by County Department of Transportation after Project completion. Section 2.4.3.5 of the Draft EIR states that "unless future outside funding is obtained to keep and maintain the existing bridge as a pedestrian facility, the existing bridge would likely be removed at some point after traffic is shifted onto the new bridge." However, as discussed in Master Response 1 in Chapter 2 of this Final EIR, subsequent to the release of the Draft EIR for public comment and independent of the proposed Project, the County researched feasible options available for retaining the existing Mosquito Road Bridge after the proposed new bridge is completed. At the February 14, 2017 Board of Supervisors meeting, following the presentation, and after hearing from the public, the Board voted unanimously to direct staff to retain and maintain the existing bride for only pedestrian and bicycle use. The future use of the existing bridge is not part of the Project addressed in the EIR and no changes to the Draft EIR are included in this errata chapter to address the future use of the bridge.

Summary

For clarification, the text in Summary Section S.3, Areas of Known Controversy*, has been revised as follows.*

> Known areas of controversy include the availability of evacuation routes and emergency vehicle access, a bridge fully accessible and traversable by all vehicle types, river access <u>for recreation</u>,

the potential for increased growth in the Swansboro/Mosquito area, and the alignment of the replacement bridge within the South Fork American River canyon.

Chapter 2, Project Description

Figure 2-2 has been replaced to reflect the updated project footprint described in Chapter 3, Changes to the Proposed Project*. The revised figure is at the end of this chapter.*

Section 3.2, Air Quality

The following threshold of significance, listed on page 3.2-11 of the Draft EIR, is clarified to better indicate the qualitative health risk assessment analysis used for assessing concentrations of diesel particulate matter.

- Generate TAC emissions that would result in a lifetime probability of contracting cancer greater than ten in one million or a ground-level concentration of non-carcinogenic TAC of greater than 1 on the hazard index. EDCAQMD has adopted a fuel-based screening threshold for TAC in which projects that consume less than 37,000 gallons of fuel over the construction period are considered to have a less-than-significant impact. However, this screening criterion, which is based on use of construction equipment over 15 years old, does not account for the improved emissions control technologies found on current construction equipment. Therefore, a qualitative assessment that also takes into account other variables, such as proximity to receptors, duration of the construction period, types of construction equipment, and the amount of onsite diesel-generated emissions, is used to determine impact significance for concentrations of DPM as a TAC.

Table 3.2-4, on page 3.2-11 of the Draft EIR, is revised to clarify the reference to the El Dorado County Air Quality Management District's 2002 Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts under the California Environmental Quality Act and the qualitative health risk assessment analysis used for assessing concentrations of diesel particulate matter.

Table 3.2-4. El Dorado County Air Quality Management District Significance Thresholds

Criteria Pollutant	Construction	Operations
Reactive Organic Gases (ROG)	82 pounds per day[a]	
Nitrogen Oxides (NO_X)	82 pounds per day	
Carbon Monoxide (CO)	CAAQS (or fuel screening)[b]	
Sulfur Oxides (SO_X)	CAAQS (or fuel screening)[b]	
Fine Particulates (PM2.5)	Best management practices (dust) CAAQS (or fuel screening)[b] (exhaust)	CAAQS (or fuel screening)[b]
Particulates (PM10)	Best management practices (dust) CAAQS (or fuel screening)[b] (exhaust)	CAAQS (or fuel screening)[b]
TAC	Cancer risk of 10 in a million or HI greater than 1 (or fuel screening)[c]	

Source: El Dorado County Air Quality Management District 2002.

[a] During construction, this threshold can be combined to obtain a total ozone threshold of 164 pounds

per day. With the combined threshold, construction emissions of one pollutant may be in excess of 82 pounds per day; however, as long as the combined total is below 164 pounds per day, the EDAQMD considers the impact to be less than significant. Unlike with construction emissions, the 82 pound per day threshold for operational ROG and NO_X cannot be combined for a total ozone threshold.

[b] If the average amount of daily diesel fuel usage is less than the fuel usage screening threshold of 402 gallons per day (for construction equipment 1996 model year or later), EDCAQMD considers emissions to be less than significant.

[c] If total diesel fuel usage is less than the fuel usage screening threshold of 37,000 gallons, EDCAQMD considers health risks to be less than significant. However, while EDCAQMD established this health risk screening threshold in their 2002 CEQA Guidelines, this screening criterion is based on construction equipment over 15 years old and does not account for the improved emissions control technologies found on current construction equipment that has substantially reduced DPM exhaust emissions. Consequently, this fuel based screening threshold is not used to evaluate construction-related health risks for the Project.

Table 3.2-6, on page 3.2-13 of the Draft EIR, is revised to clarify the qualitative health risk assessment analysis used for assessing concentrations of diesel particulate matter.

Table 3.2-6. Estimated Fuel Usage during Construction (gallons per day and total)

Phase	Fuel Use
Grubbing/Land Clearing	206 average gallons per day[b]
Grading/Excavation	361 average gallons per day[b]
Drainage/Utilities	222 average gallons per day[b]
Paving	143 average gallons per day[b]
Construction Total	197,042 gallons
Daily Screening Threshold	*402 gallons*
Construction Total Screening Threshold[a]	*37,000 gallons*

[a] EDCAQMD's construction health risk fuel consumption screening threshold is shown for reference, but not used for this analysis, as this screening criterion is based on construction equipment over 15 years old and does not account for the improved emissions control technologies found on current construction equipment that has substantially reduced DPM exhaust emissions.

[b] Source: Terry A. Hayes Associates Inc. 2016.

Impact AQ-4, starting on page 3.2-14, is revised to include the qualitative analysis of concentrations of diesel particulate matter omitted from the Draft EIR.

Impact AQ-4: Expose sensitive receptors to substantial pollutant concentrations (less than significant)

Diesel Particulate Matter

Project construction would generate DPM, resulting in the potential exposure of nearby existing sensitive receptors (e.g., residences) to increased DPM concentrations. As shown in Table 3.2-6, total fuel usage would be 197,042 gallons of diesel, which is above. ~~This would be less than~~ the screening threshold of 37,000 gallons set by EDCAQMD. However, EDCAQMD's construction

health risk fuel consumption screening threshold is shown only for reference, not used for the determination of significance in this analysis, as EDCAQMD's screening criterion is based on construction equipment over 15 years old and does not account for the improved emissions control technologies found on current construction equipment that has substantially reduced DPM exhaust emissions.

As described above, one residence is located in the immediate vicinity of the Project approximately 150 feet from the Project footprint on the Placerville side of the canyon. Although proximity to receptors indicates the potential for a significant health risk, air quality management agencies recognize that other variables, such as duration of the construction period, types of construction equipment, and the amount of onsite diesel-generated emissions, can influence DPM concentrations and the potential for a project to result in increased health risk.

Exposure of this sensitive receptor to project-related DPM exhaust emissions is anticipated to be minimal. As indicated in Table 3.2-5, PM10 emissions are relatively minor, with a maximum of 4 pounds per day associated with the Grubbing/Land Clearing phase. Of this amount, 1.3 pounds per day is associated with PM10 exhaust, as PM10 is often used as a surrogate for DPM emissions (Terry A. Hayes Associates Inc. 2016).

Cancer health risks associated with exposure to diesel exhaust are typically associated with chronic exposure, in which a 70-year exposure period is assumed. In addition, DPM concentrations, and, thus, cancer health risks, dissipate as a function of distance from the emissions source. Construction associated with the Project would require approximately 30 total months to complete, but construction activities would not occur over 30 sequential months, as construction activities would be broken up into two construction seasons. The 30-month duration of construction activities is shorter than the 70-year exposure period typically associated with increased cancer health risks. Moreover, construction activities during this time period would generally occur in a linear fashion, as opposed to at a single location. As construction activities proceed on the Placerville side of the canyon they will occur further away from the sensitive receptor. A substantial amount of the construction activities, and the construction equipment and associated emissions, will be located within the canyon of the South Fork American River, at elevations up to 300 feet below the elevation at which the sensitive receptor is located. This relocation of the construction equipment into the canyon of the South Fork American River will aid in the dispersion of construction emissions, as wind in canyon-type environments is often stronger and more pronounced, which would help to further minimizing exposure of the sensitive receptor to construction-related DPM exhaust emissions. Therefore, construction activities would result in a less-than-significant impact related to exposure of sensitive receptors to DPM.

Regarding operational emissions, health risk assessments are typically completed for substantial sources of DPM emissions (e.g., truck stops and distribution facilities). Construction of the new bridge would likely increase the truck volumes by approximately 1% to 13 daily truck trips in 2015 and 26 daily trips in 2034. These levels of truck volumes would not generate significant emissions, and do not justify completion of a health risk assessment. In addition, the Project does not meet the EPA's screening criteria for projects of air quality concern, which is greater than 125,000 ADT, where 8% or more of such traffic is diesel truck traffic—as shown in Table 3.2-7, ADT on Mosquito Bridge in 2034 would be 2,547 with 26 trucks. This impact would be less than significant, and no mitigation is required.

Section 3.3, Biological Resources

The figure titled Impacts on Natural Communities in the Biological Study Area that follows Draft EIR page 3.3-2 was incorrectly numbered. It has been renumbered from Figure 3 to Figure 3.3-1. In addition, the figure has been updated to reflect the updated project footprint described in Chapter 3, Changes to the Proposed Project. *The revised Figure 3.3-1 is at the end of this chapter.*

For clarification, the text of Mitigation Measure BIO-3, on page 3.3-30 of the Draft EIR has been revised as follows.

Mitigation Measure BIO-3: Retain a Qualified Biologist to Conduct Periodic Monitoring during Construction

El Dorado County will retain a qualified biologist to conduct periodic construction monitoring in and adjacent to all sensitive habitats (i.e., interior live oak woodland, willow thickets, ~~and~~ streams, and yellow star thistle or invasive weed as needed) in the construction area. The frequency of monitoring will range from daily to weekly depending on the biological resource. The monitor, as part of the overall monitoring duties, will inspect the fencing once a week to ensure that fencing around environmentally sensitive areas is intact. The biological monitor will assist the construction crew as needed to comply with all Project implementation restrictions and guidelines. The biological monitor also will be responsible for ensuring that the contractor maintains the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources. The monitor will provide El Dorado County with a monitoring log for each site visit, which will be provided to interested agencies upon request.

Certain activities will require a biological monitor to be present for the duration of the activity or during the initial disturbance of an area to ensure that impacts on special-status species are avoided. The activities that require specific monitoring are identified below ~~in~~ and include but are not limited to Mitigation Measures BIO-9, BIO-10, BIO-11, and BIO-12.

For clarification, the text of Mitigation Measure BIO-4, on page 3.3-30 of the Draft EIR has been revised as follows.

Mitigation Measure BIO-4: Protect Water Quality and Prevent Erosion and Sedimentation in Wetlands and Drainages

El Dorado County will ensure the construction specifications include the following water quality protection and erosion and sediment control BMPs, based on standard County/Caltrans requirements, to minimize construction-related contaminants and mobilization of sediment in wetlands and streams, including South Fork American River, in and adjacent to the study area.

The BMPs will be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable and are subject to review and approval by the County. The County will perform routine inspections of the construction area to verify the BMPs are properly implemented and maintained. The County will notify contractors immediately if there is a noncompliance issue and will require compliance.

The BMPs will include, but are not limited to, the following:

- Ensure that equipment used in and around streams is in good working order and free of dripping or leaking engine fluids. All vehicle maintenance will be performed at least 300 feet from all streams. Any necessary equipment washing will be carried out where the water cannot flow into streams.
- Prepare and implement a hazardous material spill prevention, control, and countermeasure plan before construction begins that will minimize the potential for, and the effects of, spills of hazardous or toxic substances during construction. The plan will include storage and containment procedures to prevent and respond to spills~~,~~ and will identify the parties responsible for monitoring the spill response. The plan will include the following:
    - Prevent raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses.
    - Clean up all spills immediately according to the spill prevention, control, and countermeasure plan.
    - Avoid operation of vehicles and equipment in flowing water.
    - Provide areas located outside all stream OHWMs for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants.
    - Ensure that areas where equipment is refueled or lubricated are storm-proofed to prevent contaminants from being discharged to the streams. Pump contaminated water to a holding tank for proper disposal.
- El Dorado County will review and approve the contractor's hazardous materials spill prevention, control, and countermeasure plan before allowing construction to begin.
- Prohibit the following types of materials from being rinsed or washed into the roads, shoulder areas, or gutters: concrete; solvents and adhesives; thinners; paints; fuels; sawdust; dirt; gasoline; asphalt and concrete saw slurry; <u>and</u> heavily chlorinated water.
- Dispose of any surplus concrete rubble, asphalt, or other rubble from construction at a local landfill.
- Prepare and implement an erosion and sediment control plan for the proposed Project. The plan will include the following provisions and protocols.
    - Runoff from disturbed areas will be made to conform to the water quality requirements of the waste discharge permit issued by the RWQCB.
    - Temporary erosion control measures, such as sandbagged silt fences, will be applied throughout construction of the proposed Project and will be removed after the working area is stabilized or as directed by the engineer. Soil exposure will be minimized through use of temporary BMPs, groundcover, and stabilization measures. Exposed dust-producing surfaces will be sprinkled daily, if necessary, until wet; this measure will be controlled to avoid producing runoff. Paved roads will be swept daily following construction activities.
    - The contractor will conduct periodic maintenance of erosion and sediment control measures.
    - An appropriate seed mix of native species will be planted on disturbed areas upon completion of construction.

- Cover or apply nontoxic soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterways.
- Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways. Material stockpiles will be located in non-traffic areas only. Side slopes will not be steeper than 2:1. All stockpile areas will be surrounded by a filter fabric fence and interceptor dike.
- Contain soil and filter runoff from disturbed areas by berms, vegetated filters, silt fencing, straw wattle, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from the disturbed area.
- Use other temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) to control erosion from disturbed areas as necessary.
- Avoid earth or organic material from being deposited or placed where it may be directly carried into streams.

- Minimize the extent of all areas requiring clearing, grading, revegetation, and recontouring.
- Grade areas following construction to minimize surface erosion.
- Cover bare areas with mulch and revegetate all cleared areas.

El Dorado County also will obtain a CWA Section 404 permit from USACE and a Section 401 Water Quality Certification from the Central Valley RWQCB, which may contain additional BMPs and measures to ensure the protection of water quality.

For clarification, the text of Mitigation Measure BIO-5, on page 3.3-33 of the Draft EIR has been revised as follows.

Mitigation Measure BIO-5: Conduct Preconstruction Surveys for Blainville's Horned Lizard and Monitor Initial Ground Disturbance Work in Staging Areas

To avoid and minimize potential injury or mortality of Blainville's horned lizard, El Dorado County will retain a qualified wildlife biologist to conduct a preconstruction survey of suitable habitat within 24 hours of the start of construction activities. The biologist will survey the areas designated for staging activities (yellow star-thistle field, annual grassland, and Kentucky blue grass turf) for Blainville's horned lizard. If a Blainville's horned lizard is observed within the construction/staging area during the preconstruction survey, a biologist will be present during all vegetation clearing and grading to prepare the site. The biologist will monitor initial ground disturbing activities and if a horned lizard is observed, the animal will be allowed to leave the construction area on its own. ~~The biologist will have had his or her CDFW scientific collecting permit amended to include capture and relocation of Blainville's horned lizard.~~

For the remainder of construction, the biologist will remain on call in case a Blainville's horned lizard is discovered. The construction crew will be instructed to notify the crew supervisor who will contact the biologist if this species is found dead or trapped within the construction area. Work in the area where the lizard is found dead or trapped will stop until the biologist arrives and determines the appropriate course of action~~removes and relocates the lizard~~. If a horned lizard becomes trapped in the construction area and cannot leave on its own, CDFW will be

contacted to obtain authorization or a permit to capture and relocate the horned lizard out of the construction area. The discovery of any dead Blainville's horned lizard will be reported to the County immediately and the County will notify CDFW within 24 hours of the discovery. If the County can determine that construction activities caused the death of the horned lizard, the County will take efforts to prevent a subsequent death of another horned lizard. ~~The biologist will report activities to the County and CDFW within 24 hours of relocating or finding any dead Blainville's horned lizard.~~

On page 3.3-33, the acres of habitat for nesting bald eagles proposed for removal has been revised as follows, consistent with the updated project footprint described in Chapter 3, Changes to the Proposed Project*.*

Nesting bald eagles

Construction activities would occur during the bald eagle nesting season (February 1 through August 1) and could result in the disturbance of a nesting bald eagle pair. Removal of a nest or construction disturbance (noise and/or activity) during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. The removal of up to ~~6.56~~6.67 acres of oak woodland trees in the study area may reduce the amount of available nesting habitat for bald eagle; however, many of these trees are less than 1 foot in diameter and are unlikely to support a bald eagle nest.

For clarification, the text of Mitigation Measure BIO-7, on page 3.3-34 of the Draft EIR has been revised as follows.

Mitigation Measure BIO-7: Compensate for Temporary and Permanent Impacts on Interior Live Oak Woodland

~~El Dorado County will compensate for the temporary and permanent~~ The project will avoid impacts to interior live oak woodland to the maximum extent feasible including but not limited to adjusting construction paths to avoid oak trees and considering the density of oak trees in locating staging and other areas. In areas where temporary or permanent impacts will occur in interior live oak woodland, ~~M~~mitigation will be implemented through the most current El Dorado County Oak Resources Management Plan (ORMP)~~, if it is approved~~ or Policy 7.4.4.4 if applicable at the time of Project construction by ~~replanting oak woodland vegetation onsite~~ applying a combination of the options listed below to ensure that all impacts are collectively mitigated to a less than significant level. Construction activities and improvement features will avoid oak tree removals and oak woodland disturbances wherever possible to minimize impacts. Additionally, existing oak woodland habitat canopy characteristics will be considered in an effort to minimize impacts to oak woodland habitat as it pertains to post-construction canopy conditions. Onsite replanting of oak woodland vegetation will be done to the maximum extent practicable to mitigate for no more than half of the impacts, however due to the physical constraints of the project area, and in efforts to minimize the acquisition of new right-of-way, there is little available suitable space for planting trees onsite to compensate for the temporary and permanent impacts to interior live oak woodland. Alternatively, onsite planting will be supplemented with offsite planting ~~if necessary~~ and/or the purchase of mitigation credits. The proximity to the project will be considered when selecting locations. ~~Both of these options are discussed below.~~

The final impact areas will be confirmed by a qualified biologist or arborist based on actual project disturbances and in cooperation with California Department of Fish and Wildlife (CDFW). The specific mitigation measure to include mitigation quantities and costs will be determined based on construction impacts associated with the actual project constructed and will ensure that mitigation collectively results in impacts that are less than significant.

The mitigation measures will include a combination of one or more of the options below:

1. ~~**Mitigation through the Oak Resource Management Plan (ORMP)**~~**In-Lieu Fee Fund**. Based on the costs of acquisition of land and conservation easements, management, monitoring, and administrative costs, the County will pay into an in-lieu fee fund for replacement of oak woodlands. Replacement will be ~~based on the acreage of impacts~~according to the current ORMP requirements adopted by the County at the time of construction. Currently, the Project would mitigate at a 2:1 ratio ~~of 2:1~~ (2 acres purchased for every 1 acre impacted)~~, according to the ORMP requirements~~unless Option A of Policy 7.4.4.4 is satisfied, in which case mitigation would be at a 1:1 ratio under that option. The Board is currently considering a new ORMP that would require mitigation at a ratio of a minimum of 2:1 per acre for 75.1 – 100% oak woodland impact level; 1:1 per acre in the event that the percent of oak woodland impact can be minimized to 0 to 50%; or 1.5:1 for impacts at 50 to 75.1%. The Standards in the County ORMPs are designed to mitigate impacts to less than significant and the Oak Woodland Management Plan for this Project will ensure that the ratios in the controlling ORMP are sufficient to mitigate the Project's impacts to less than significant. ~~Total cost per acre, based on the June, 2016 DEIR is $7,954.00; however costs may change over time resulting in a fee adjustment.~~

2. **Onsite and/or Offsite Replacement.** If this option is implemented, onsite replacement will not fulfill more than one-half of the mitigation for oak woodlands. As discussed under the prior option, the oak woodland replacement ratio for temporary and permanent impacts will be at a ~~minimum~~ ratio of 2:1, 1.5:1, ~~(2 acres replacement for each 1 acre removed),~~or 1:1, depending on the actual impacts and the requirements of the current ORMP at the time of construction. If substitution of per acre formula is warranted with a per tree planting formula, a minimum of 2:1 tree planting formula (2 oak trees planted for every 1 removed) will be applied ~~and~~. T~~t~~he final required quantities and methods will be based on actual project disturbances and will be coordinated with a qualified biologist and/or arborist and with CDFW for impacts within their jurisdiction. The location of the oak woodland planting site will be determined prior to Project permitting and proximity to the Project will be achieved to the extent feasible. Temporarily disturbed areas will be replanted after construction. However, due to the limited area, ~~of on-site El Dorado County~~ right-of-way constraints, and steep topography available for onsite planting trees, the oak woodland compensation ~~for some of the temporary and most or all of the permanent impacts~~ will likely require a supplementary off-site planting location. The County will prepare a~~n~~ Project ~~oak woodland mitigation plan~~ Oak Woodland Management Plan when the final woodland ~~replacement ratio~~ disturbance area and replacement planting locations have been determined. Details of the number and species of trees and other applicable understory shrubs to be planted, based on the replacement ratio, as well as the specific planting locations, maintenance, and irrigation needs, and annual monitoring requirements will be included in the ~~oak woodland mitigation plan~~ Oak Woodland Management Plan. The success criterion will be a minimum of ~~60~~80 percent survival of all plantings in ~~5~~3 years after planting, with annual survival goals to be met prior to the final monitoring. This survival

criteria requires a high relative rate of success for the 3 year monitoring period, and the monitoring duration is consistent with the project's funding requirements for the maximum 3 year post-construction monitoring period. If planting survival does not meet the criterion in any year, the potential reasons for failure will be analyzed and addressed in remedial measures, and additional plantings will be installed and monitored for the full ~~5~~3 years. Monitoring, remedial measures, and replanting will continue until the final success criterion is met. After expiration of the initial 3 years, the County will, likely at its own cost, maintain the planted trees for an additional four years pursuant to the Public Resources Code.

3. **Mitigation Credits**. This compensatory option may be used to ensure that the ecological losses are offset, do not result in a net loss of oak woodland habitat, and reduce the impact to interior live oak woodlands to less than significant. Credits will be purchased from a mitigation bank, or resource area, that has been restored, established, enhanced, or in some circumstances, preserved for the purpose of providing compensation for the unavoidable impacts permitted under the regulatory framework. As discussed under the first option , the oak woodlands replacement ratio for temporary and permanent impacts will be at a ratio of 2:1, 1.5:1, or 1:1, depending on actual impacts and the requirements of the current ORMP at the time of construction. The number of credits purchased will be determined in coordination with CDFW for impacts within their jurisdiction, with a qualified biologist and/or arborist and will be based on actual project disturbances.

For clarification, the text of Mitigation Measure BIO-8, on page 3.3-35 of the Draft EIR has been revised as follows.

Mitigation Measure BIO-8: Remove Vegetation during the Nonbreeding Season and Conduct Preconstruction Surveys for Nesting Migratory Birds

- To the maximum extent feasible, tree removal will occur during the non-breeding season for most migratory birds (generally between October 1 and January 31). This is highly preferred because if an active nest is found in a tree (or other vegetation) to be removed during preconstruction nest surveys (described below), the tree cannot be removed until the end of the nesting season, which could delay construction. If trees cannot be removed between October 1 and January 31, the area where vegetation will be removed must be surveyed for nesting birds, as discussed below.
- If construction activities are expected to begin during the nesting season for migratory birds and raptors (generally February 1 through September 30), El Dorado County will retain a qualified wildlife biologist with knowledge of the relevant species to conduct nesting surveys before the start of construction. A survey will be conducted for migratory birds, including raptors. The survey will include a search of all trees and shrubs that provide suitable nesting habitat in the construction area and within a minimum 300-foot buffer from construction activities. The survey buffer for bald eagle will extend a minimum of 0.5 mile around the construction area. The survey will occur within 1 week of the start of construction. With regard to California spotted owl surveys, the survey method will follow the U.S. Forest Service 1993 protocol for California spotted owl, which is intended to determine presence/absence, occupancy, and nesting status. If no active nests are detected during these surveys, no additional measures are required.
- If an active nest is found in the survey area, a no-disturbance buffer will be established around the site to avoid disturbance or destruction of the nest site until the end of the

breeding season (September 30) or until after a qualified wildlife biologist determines that the young have fledged and moved out of the project area (this date varies by species). The extent of these buffers will be determined by the biologist in coordination with USFWS and CDFW and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species.

On page 3.3-35, the acres of habitat for nesting California spotted owls proposed for removal has been revised as follows, consistent with the updated project footprint described in Chapter 3, Changes to the Proposed Project.

Nesting California spotted owls

Construction activities would occur during the California spotted owl nesting season (February 1 through August 1) and could result in the disturbance of nesting California spotted owl. Removal of nests or construction disturbance (noise and/or activity) during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. The removal of up to ~~6.56~~6.67 acres of oak woodland trees in the study area may reduce the amount of available nesting habitat for California spotted owl; however, many of these trees are less than 1 foot in diameter and are unlikely to support a California spotted owl nest.

On page 3.3-37, the acres of habitat for nesting migratory birds proposed for removal has been revised as follows, consistent with the updated project footprint described in Chapter 3, Changes to the Proposed Project.

Nesting migratory birds

Construction activities would occur during the nesting season of migratory birds (generally February 1 through September 30) and could result in the possible loss of nesting birds, including swallows or black phoebes that could nest on the existing Mosquito Road Bridge structure. Any impact to nests on the existing bridge has been avoided with the Board's independent decision to maintain the existing bridge for pedestrian and bicycle use. Removal of nests or construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. The removal of up to approximately ~~6.56~~6.67 acres of oak woodland trees in the study area, if not replaced, would reduce the amount of available nesting habitat for migratory birds.

For clarification, the text of Mitigation Measure BIO-9, on page 3.3-37 of the Draft EIR has been revised as follows.

Mitigation Measure BIO-9: Conduct Preconstruction Survey for Mud Nests on the Bridge and Implement Protective Measures for Bridge-Nesting Birds

- ~~Should the existing bridge be removed,~~Mitigation Measure BIO-9 was proposed to address the possibility of removal of the existing bridge at the time of the Draft EIR. The Board has independently decided to maintain the bridge. If for some unforeseen reason the existing bridge is removed as part of this project, BIO-9 will be implemented. ~~t~~To avoid impacts on nesting swallows and other bridge-nesting migratory birds that are protected under the

~~MBTA~~Migratory Bird Treaty Act and ~~CFGC~~California Fish and Game Code, ~~El Dorado~~ the County will implement the following measures:

- The County will hire a qualified wildlife biologist to inspect the bridge during the swallows' non-breeding season (September 1 through February 28). If nests are found and are abandoned, they may be removed. To avoid damaging active nests adjacent to new bridge construction, nests must be removed before the breeding season begins (March 1).
- After nests are removed, the undersides of the bridge will be covered with 0.5- to 0.75-inch mesh net by a qualified contractor. All net installation will occur before March 1 and will be monitored by a qualified biologist throughout the breeding season (typically several times a week). The netting will be anchored so that swallows and other birds cannot attach their nests to the bridge through gaps in the net.
- As an alternative to netting the underside of a bridge, the County may hire a qualified biologist to remove nests as the birds construct them and before any eggs are laid. Visits to the site would need to occur daily throughout the breeding season (March 1 through August 31) as swallows can complete a nest in a 24-hour period.
- If netting of the bridge does not occur by March 1 and swallows colonize the bridge, modifications to the structure will not begin before August 31 of that year or until a qualified biologist has determined that the young have fledged and all nest use is completed.

- If appropriate steps are taken to prevent swallows and other birds from constructing new nests, work can proceed at any time of the year.

For clarification, the text of Mitigation Measure BIO-10, on page 3.3-39 of the Draft EIR has been revised as follows.

Mitigation Measure BIO-10: Identify Suitable Roosting Habitat for Bats and Implement Avoidance and Protective Measures

- To avoid potential impacts on breeding and hibernating bats, tree removal or trimming should occur between September 16 and October 31. If tree removal/trimming cannot be conducted between September 16 and October 31, qualified biologists will examine trees to be removed or trimmed for suitable bat roosting habitat before removal/trimming. High-quality habitat features (large tree cavities, basal hollows, loose or peeling bark, larger snags, palm trees with intact thatch, etc.) will be identified and the area around these features searched for bats and bat sign (guano, culled insect parts, staining, etc.). Passive monitoring using bat detectors may be needed if identification of bat species is required. Survey methods should be discussed with CDFW prior to the start of surveys.
- Measures to avoid and minimize impacts to sensitive bats species will be determined in coordination with CDFW and ~~may~~will include the following:
  - Tree removal will be avoided between April 1 and September 15 (the maternity period) to avoid effects on pregnant females and active maternity roosts (whether colonial or solitary).

- All tree removal ~~will~~should be conducted between September 16 and October 31, which corresponds to a time period when bats have not yet entered torpor or would be caring for nonvolant young.
- Trees with high-quality roosting habitat will be removed in pieces rather than felling entire tree.
- If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until September 16 or until a qualified biologist has determined the roost is no longer active, whichever occurs first.
- If avoidance of nonmaternity roost trees is not possible, and tree removal or trimming cannot occur between September 16 and October 31, qualified biologists will monitor tree trimming or removal that occurs before September 16 or after October 31. If possible, tree trimming and removal should occur in the late afternoon or evening when it is closer to the time that bats would normally arouse. Prior to removal or trimming, each tree will be shaken gently multiple times (at least three times) and several minutes (a minimum of 5 minutes) should pass between shakes before felling trees or limbs to allow bats time to arouse and leave the tree. The biologist should search downed vegetation for dead and injured bats. The presence of dead or injured bats will be reported to CDFW. The biologist will prepare a biological monitoring report, which will be provided to the Project lead and CDFW. If the County can determine that construction activities caused the death of the bat, the County will take efforts to prevent a subsequent death of another bat.

- The biologist will conduct a preconstruction survey of crack, crevice, and cavity habitat including boulder and bedrock outcrops, human-made structures (existing Mosquito bridge span, associated rock stack wall, cable anchors and abutment, other wood-framed structures, etc.) for suitable bat roosting habitat before rock blasting or removal. High-quality habitat features will be identified and the area around these features searched for bats and bat sign (guano, culled insect parts, urine staining, etc.). Passive monitoring using bat detectors may be needed if identification of bat species is required. Survey methods should be discussed with CDFW prior to the start of surveys.

  If a roost is located, the biologist will determine the species, the level of occupancy (solitary or colonial), and the status of the roost (maternity or nonmaternity) if possible. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until September 16 or when a qualified biologist has determined the roost is no longer active, or whichever occurs first. If the roost in not a maternity roost, CDFW will be consulted to determine if the roost can be disturbed, and, if so, the approach to removing the habitat and compensatory mitigation for its loss. Implementation of the approach will be conducted by the biologist in coordination with the contractor, and construction activities to occur before, during and/or after implementation will be monitored, documented, and reported to the Project lead and CDFW.

- The removal of oak woodland will be compensated ~~for by replanting oak trees at a 2:1 ration in the study are or at the designated off site planting area, or as required by CDFW,~~ as discussed in Mitigation Measure BIO-~~5~~7. Any additional compensation for loss of tree-roosting habitat, if required by CDFW, will be developed in coordination with CDFW.

On page 3.3-41 of the Draft EIR, the last bullet of Mitigation Measure BIO-10 contains a typographical error. It incorrectly refers to Mitigation Measure BIO-5 and is corrected, along with a clarifying text change related to Mitigation Measure BIO-7, as follows.

- The removal of oak woodland will be compensated for ~~by replanting oak trees at a 2:1 ratio in the study area or at the designated off-site planting area, or as required by CDFW,~~ as discussed in Mitigation Measure ~~BIO-5~~BIO-7. Any additional compensation for loss of tree-roosting habitat, if required by CDFW, will be developed in coordination with CDFW.

The permanent and temporary impact acres shown in Table 3.3-3, and in the second paragraph under Interior live oak woodland, on page 3.3-41 have been revised as follows, consistent with the updated project footprint described in Chapter 3, Changes to the Proposed Project*.*

Table 3.3-3. Impacts on Sensitive land cover types in the Study Area

	Interior Live Oak Woodland (acres)	Willow Thicket Wetland (acres)	Intermittent Stream (acres)	Perennial Stream (acres)
Permanent Impacts	~~6.56~~ 6.67	0.06	0	0
Temporary Impacts	~~7.46~~ 7.62	0	0	0
Total Impacts	*~~14.02~~ 14.29 acres*	*0.06 acre*	*0 acre*	*0 acre*

Interior live oak woodland

The proposed Project would result in direct permanent and temporary impacts on interior live oak woodland in the study area (Table 3.3-3).

Permanent impacts on interior live oak woodland (Figure 3.3-1) would occur in the areas proposed for the roadway realignment of bridge approaches, construction of the bridge supports (approximately 0.004 acre) and abutments with wingwalls (approximately 0.013 acre), construction equipment turnaround/staging areas contiguous with the sharp hairpin turns in Mosquito Road, and access roads required for construction and maintenance of the bridge abutments and supports. Up to ~~6.56~~6.67 acres of vegetation, including trees, ~~would~~ could be permanently removed within these Project footprint areas.

The first paragraph on Page 3.3-42 is revised as follows, consistent with the updated project footprint described in Chapter 3, Changes to the Proposed Project.

Because CDFW considers oak woodland a sensitive natural community that provides an important food source for wildlife, and nesting and roosting habitat for birds and bats, temporary and permanent impacts on interior live oak woodland would be considered significant. Compensation would be required by CDFW for the temporary impacts on up to approximately ~~7.46~~7.62 acres and permanent loss of up to approximately ~~6.56~~6.67 acres of interior live oak woodland. With implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-6, temporary impacts would be reduced outside of the Project footprint. Implementation of Mitigation Measure BIO-7 would avoid any impact when possible and compensate for the temporary and permanent loss of oak woodland and reduce these impacts to a less-than-significant level.

For clarification, the text of Mitigation Measure BIO-12, on page 3.3-45 of the Draft EIR, has been revised as follows.

Mitigation Measure BIO-12: Avoid the Introduction and Spread of Invasive Plants

El Dorado County or its contractor will be responsible for avoiding the introduction of new invasive plants and the spread of invasive plants previously documented in the study area. Accordingly, the following measures will be implemented during construction:

- Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of invasive weeds.
- Dispose of invasive species material removed during Project construction off-site at an appropriate disposal facility to avoid the spread of invasive plants into natural areas.
- Minimize surface disturbance to the greatest extent feasible to complete the work.
- Use weed-free imported erosion-control materials (or rice straw in upland areas).
- Use locally grown native plant stock and native or naturalized (noninvasive) grass seed during revegetation.
- On BLM lands and in areas identified with a presence of invasive plants, the Contractor will be required to wash (clean) all equipment before entering the work area and leaving the identified work area. In these locations, routine visual inspections will also be conducted.
- The contractor will be required to prepare a noxious weed plan for submittal that details the surveying, preventing, controlling, and monitoring for noxious weed populations in areas identified to contain noxious weed (invasive plants). This plan will also detail the use of specific prevention BMPs as detailed by the California Invasive Plant Council (http://cal-ipc.org/ip/prevention/tuc.php), and as applicable for the project site and operations.
- Post construction monitoring will be conducted for a period of 3 years it is identified during construction by qualified personnel that there is a threat of the spread of noxious weed based on disturbances to areas identified to contain noxious weed, and observations of non-conformance to project invasive weed BMPs or controls to prevent the spread.

Section 3.5, Geology, Soils, Minerals, and Paleontological Resources

The reference to Impact GEO-4 at the top of page 3.5-16 is a typographical error and is corrected as follows.

Because of the low potential for strong seismic shaking, the hazard of seismically-induced landslides in the Project area is low. (See Impact ~~GEO-4~~GEO-3 for a discussion of landsliding in the absence of seismic shaking.)

Section 3.7, Hazards and Hazardous Materials

For clarification, the text of Mitigation Measure HAZ-1, on page 3.7-9 of the Draft EIR, has been revised as follows.

Mitigation Measure HAZ-1: Implement a fire protection plan

The County will require its contractors to coordinate with CAL FIRE to prepare a Fire Protection Plan. CAL FIRE will review, revise if necessary, and approve the plan before construction begins in areas with moderate to high fire hazards. The Fire Protection Plan will include the following measures.

- Internal combustion engines, stationary and mobile, will be equipped with spark arresters. Spark arresters shall be in good working order.
- Contractor will keep all construction sites and staging areas free of grass, brush, and other flammable materials.
- Personnel will be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires.
- Work crews shall have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the Fire Department.
- <u>Necessary controls required to be in place when fire risk activities are being performed. Controls may include availability of fire extinguishers, proximity to grass and dry debris, etc.</u>
- Smoking will be prohibited while operating equipment and shall be limited to paved or graveled areas or areas cleared of all vegetation. Smoking will be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking will be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the project area.[1]
- <u>Emergency access routes will be properly planned and communicated to all personnel. Boulders will not be placed or stored such that landowner access is blocked.</u>

Section 3.9, Land Use Planning and Agricultural Resources

Figure 3.9-1, Land Use and Agriculture Study Area, that follows Draft EIR page 3.9-4 has been updated to reflect the updated project footprint described in Chapter 3, Changes to the Proposed Project. *The figure shows the Project in relation to the land use and agricultural study area. The revised Figure 3.9-1 is at the end of this chapter.*

Figure 3.9-3, Land Uses in the Study Area, that follows Draft EIR page 3.9-4 has been updated to reflect the updated project footprint described in Chapter 3, Changes to the Proposed Project. *The figure*

[1] "Red-Flag Warning" is a term used by fire-weather forecasters to call attention to limited weather conditions of particular importance that may result in extreme burning conditions.

shows the Project in relation to land use designations. The revised Figure 3.9-3 is at the end of this chapter.

Figure 3.9-4, Agricultural Resources in the Study Area, that follows Draft EIR page 3.9-6 has been updated to reflect the updated project footprint described in Chapter 3, Changes to the Proposed Project. *The figure shows the Project in relation to farmland designations. The revised Figure 3.94 is at the end of this chapter.*

Section 3.9.2.3, Impacts and Mitigation Measures

On Page 3.9-8, in Impact LU-4: Conversion of Important Farmland to nonagricultural use (less than significant), the acreage of Farmland of Local Importance has been updated to reflect the updated Project footprint described in Chapter 3, Changes to the Proposed Project*. The text of Impact LU-4 has been revised as follows.*

Impact LU-4: Conversion of Important Farmland to nonagricultural use (less than significant)

Proposed Project improvements requiring temporary construction disturbance, temporary easements, and permanent easements would affect lands in the Project area that are mapped as both Grazing Land (G) and Farmland of Local Importance (L) by the DOC FMMP (Figure 3.9-4).

The proposed Project would require approximately 318,000 square feet in permanent easements for the realigned roadway segment, crossings structure, and access roads. An estimated 160 feet of roadway approaching the bridge structure, beginning at the southeast terminus and extending northwest toward the river crossing, would require the acquisition of up to ~~36,000~~41,000 square feet (~~0.83~~0.94 acre) of Farmland of Local Importance for permanent easements. This represents less than 0.001 percent of farmland in the County. No portion of the area designated as Farmland of Local Importance by the state is currently used as farmland, and much of it is on sloped land that would make agricultural activities difficult.

The County is required to submit notification to the DOC to notify public acquisition of Important Farmland. The notification would include the acreage (~~0.83~~0.94 acre) and type of farmland (nonprime), as well as a description of why the land acquisition is necessary for public improvement.

This impact would be less than significant. No mitigation is required.

Chapter 5, Other CEQA Considerations

On page 5-2, the second paragraph of Section 5.2.1.1, Farmland, has been updated to reflect the updated project footprint described in Chapter 3, Changes to the Proposed Project*. The text of Section 5.2.1.1 has been revised as follows.*

As described in Section 3.9, Land Use Planning and Agricultural Resources, the proposed Project would require the acquisition of up to ~~36,000~~41,000 square feet (~~0.83~~0.94 acre) of Farmland of Local Importance for permanent roadway easements. This represents less than 0.001 percent of

farmland in the County. Because no portion of the Project area designated as Farmland of Local Importance by the state is currently used as farmland, and much of it is on sloped land that would make agricultural activities difficult, the proposed Project's contribution to the cumulative loss of farmland is considered less than cumulatively considerable. No mitigation is required.

Revised Figures

Figures noted as revised in the sections discussed above are located on the following pages. For reference, these figures are also listed below.

Figure 2-2, Proposed Project

Figure 3.3-1, Impacts on Natural Communities in the Biological Study Area

Figure 3.9-1, Land Use and Agriculture Study Area

Figure 3.9-3, Land Uses in the Study Area

Figure 3.9-4, Agricultural Resources in the Study Area

MOSQUITO ROAD BRIDGE
1854 - 2016

APN 084-030-015
OWINGS

APN 084-030-014
SHER

APN 084-030-052
KARAPINAR

APN 084-030-045
USA

APN 084-030-051
LIKINS

APN 084-030-046
USA

SOUTH FORK AMERICAN RIVER

136,300 SQFT
64,200 SQFT
193,800 SQFT
7,300 SQFT
79,900 SQFT
25,400 SQFT
41,000 SQFT
2,900 SQFT
8,800 SQFT
2,600 SQFT
12,700 SQFT
36,600 SQFT
22,500 SQFT
10,000 SQFT
50,000 SQFT
42,200 SQFT
42,000 SQFT
5,700 SQFT
10,300 SQFT
4,600 SQFT
12,000 SQFT

17+32.52 BEGIN LINE
17+88.19 BC
18+57.67 EC
20+34.50 BC
22+86.40 EC
34+71.41 BC
36+03.18 EC
38+74.10 BC
39+23.45 EC
39+71.91 END LINE

WILLOW THICKET
CONTRACTOR STAGING AREA
BEGINNING BRIDGE
PIER #2
PIER #3
ENDING BRIDGE
CANAL
APPROXIMATE LOCATION OF ACCESS Rd
PROPERTY LINE
SEE DETAIL A
REMOVE BRIDGE
MOSQUITO RD

DRAFT
SUBJECT TO REVISION
3/10/2017

DETAIL A
Exist Conc CABLE ANCHORS (Typ)
2,300 SQFT
Exist BRIDGE
2,100 SQFT
Exist ROCK STACKED WALL

LAYOUT
1" = 100'
DA-1B2

LEGEND:
TEMPORARY CONSTRUCTION DISTURBANCE AREA (TOTAL AREA = 403,900 SQFT)
PERMANENT CONSTRUCTION DISTURBANCE AREA (TOTAL AREA = 319,300 SQFT)
100-YEAR WATER SURFACE ELEVATION
PROPERTY LINE
TEMPORARY CONSTRUCTION DISTURBANCE AREA (POSSIBLE ROAD WORK)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	CR	5.32 X.XX/X.XX	----	X

ALIGNMENT STUDY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
REGISTERED PROFESSIONAL ENGINEER GARRETT MCLAUGHLIN No. C67687 Exp. ..... CIVIL STATE OF CALIFORNIA
THE COUNTY OF EL DORADO OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

QUINCY ENGINEERING
11017 COBBLEROCK DRIVE, SUITE 100
RANCHO CORDOVA, CA 95670
P: 916.368.9181

REVISED BY	DATE REVISED
DES BY	DES CHK
CALCULATED-DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: JOHN QUINCY	

EL DORADO COUNTY - DEPARTMENT OF TRANSPORTATION
MOSQUITO ROAD BRIDGE REPLACEMENT AT AMERICAN RIVER SOUTH FORK

TIME PLOTTED: 7:23:13 AM, Garrett McLaughlin
DATE PLOTTED: 3/13/2017
LAST REVISION

BORDER LAST REVISED 7/2/2010 | USERNAME Garrettm | DWG FILE S:\Client\El Dorado\E01-619 MOSQUITO Rd Br Replace PA&ED\650 - CAD\Alternative-1B\Alt 1B2 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT -- | PROJECT NUMBER & PHASE E01-619 - 0000

Graphics... 00496.14 (3/23/17) AB

Figure 2-2
Proposed Project

120°45'10"W
120°45'0"W
120°44'50"W
38°46'40"N
38°46'30"N
Mosquito Road
Mosquito-Swansboro Side of BSA
South Fork American River
Placerville Side of BSA
Mosquito Road
Permanent impacts to intermittent stream will be avoided

Mosquito Road Bridge Replacement Project

Legend

- Biological Study Area (BSA)
- Culvert

Impact Type

- Permanent Impact
- Temporary Impact

Community Type

- Annual Grassland
- Artificial Willow Thicket
- Developed
- Interior Live Oak Woodland
- Intermittent Stream
- Kentucky Blue Grass Turf
- Landscaped
- Ponderosa Pine Forest
- Willow Thicket Wetland
- Yellow Star-Thistle Field
- Ordinary High Water Mark of Perennial Stream

N

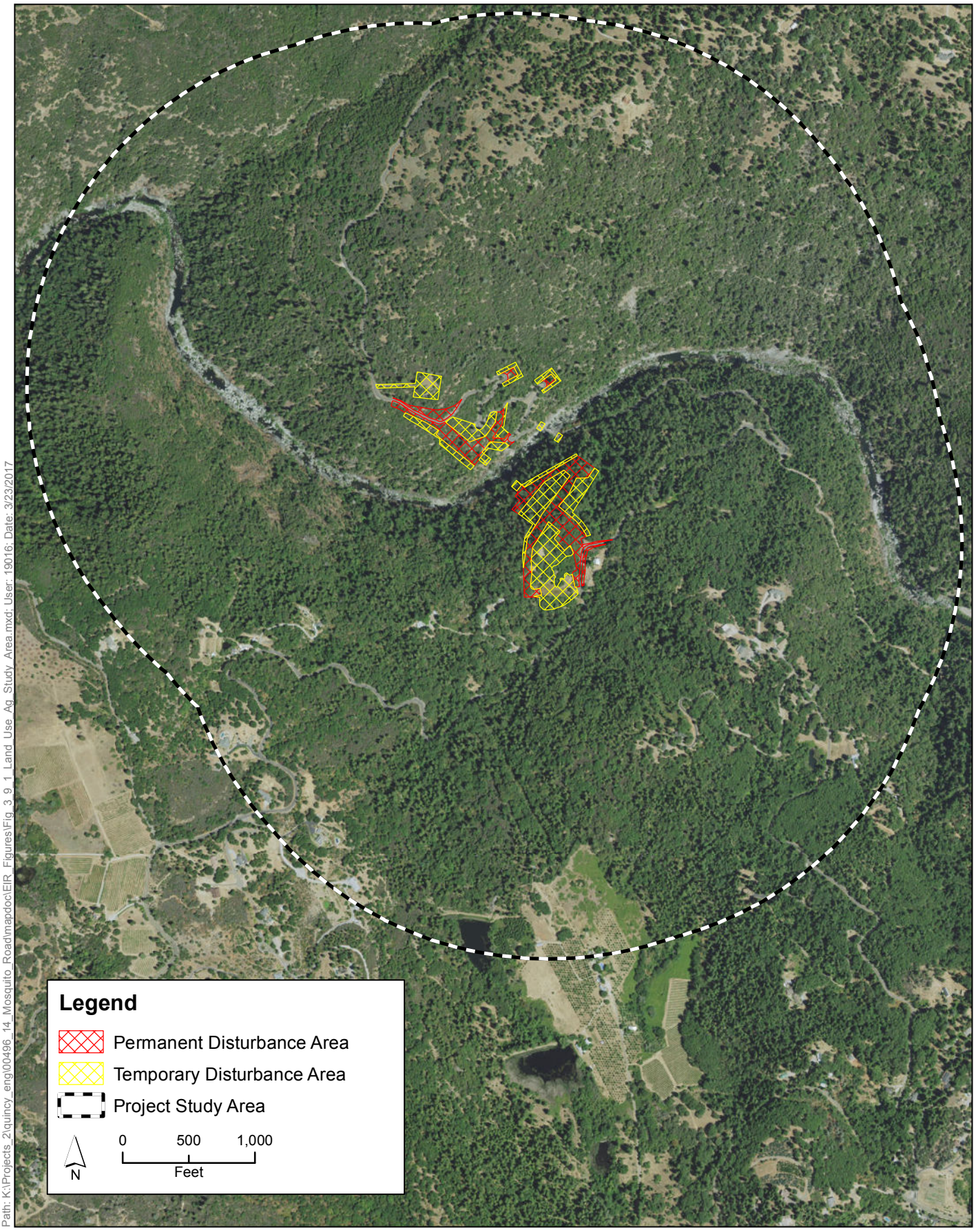
0 50 100 200
Feet

1 inch = 200 feet

Notes:
Base Map Source: ICF
Imagery Source: ESRI Bing Streaming Imagery
USGS Topo Quad: Slate Mtn and Garden Valley
PLSS: S28 T11N R11E

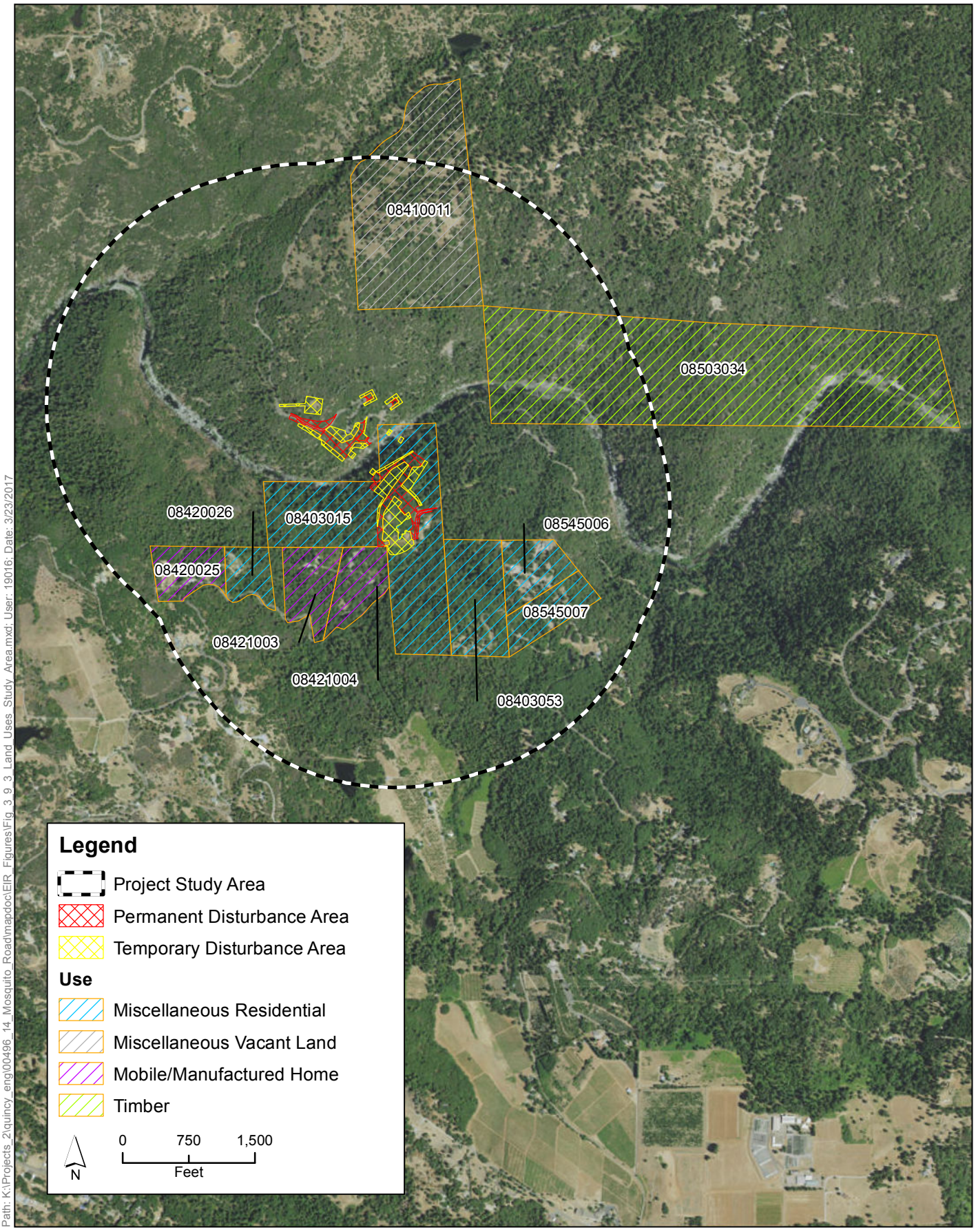
Path: K:\Projects_2\quincy_eng\00496_14_Mosquito_Road\mapdoc\EIR_Figures\Bio_Resources_20170317.mxd; Author: ; Date: 3/21/2017

Figure 3.3-1
Impacts on Natural Communities in the Biological Study Area



Path: K:\Projects_2\quincy_eng\00496_14_Mosquito_Road\mapdoc\EIR_Figures\Fig_3_9_1_Land_Use_Ag_Study_Area.mxd; User: 19016; Date: 3/23/2017

Figure 3.9-1
Land Use and Agriculture Study Area



Path: K:\Projects_2\quincy_eng\00496_14_Mosquito_Road\mapdoc\EIR_Figures\Fig_3_9_3_Land_Uses_Study_Area.mxd; User: 19016; Date: 3/23/2017

Figure 3.9-3
Land Uses in the Study Area

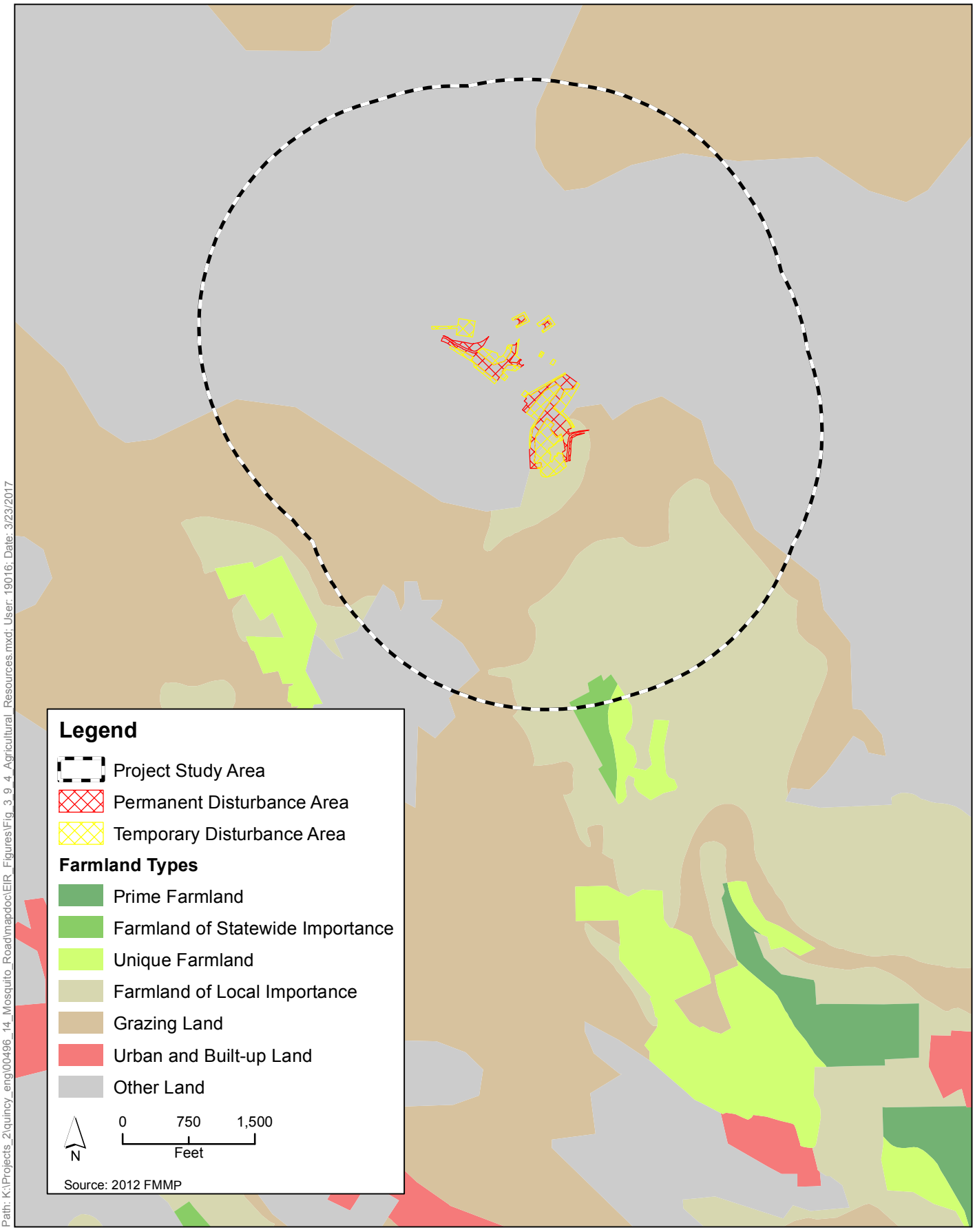


Figure 3.9-4
Agricultural Resources in the Study Area

Attachment A

Draft Feasibility Study: Public Access to the South Fork of the American River at Mosquito Road Bridge

EL DORADO COUNTY

DRAFT FEASIBILITY STUDY

PUBLIC ACCESS TO THE SOUTH FORK OF THE AMERICAN RIVER AT MOSQUITO ROAD BRIDGE

Prepared by the El Dorado County Community Development Administration, Transportation Division

July, 2016

Contents

I. Introduction

This study examines the feasibility of providing public access to the South Fork of the American River (SFAR) in El Dorado County, California, at the existing Mosquito Road Bridge in conformance with California Streets and Highways Code 991 and 84.5, due to the proposed construction of a new bridge across a navigable river.

California Streets and Highway Code 991 states that "*Before any bridge on a county highway is constructed over any navigable river, the Board of Supervisors, after a study and public hearing on the question, shall determine and shall prepare a report on the feasibility of providing public access to the river for recreational purposes and a determination as to whether such public access shall be provided.*"

California Streets and Highway Code 84.5 states: "*During the design hearing process relating to state highway projects that include the construction by the department of a new bridge across a navigable river, there shall be included full consideration of, and a report on, the feasibility of providing a means of public access to the navigable river for public recreational purposes".*

II. Project Purpose

The El Dorado County Community Development Agency, Transportation Division (Transportation), received federal funds to replace the existing Mosquito Bridge located in a steep canyon of the SFAR, 6 miles north of U.S. Highway 50, and 2.3 miles south of the communities of Mosquito and Swansboro along Mosquito Road (See Exhibits A and B). The purpose of the Mosquito Road Bridge Project (Project) is to replace the existing Mosquito Road Bridge over the SFAR with a functional bridge that meets current design and safety standards.

The following technical studies for this project are underway and projected to be completed by the summer of 2016:

- Geotechnical Report
- Foundation Report
- Natural Environment Study
- Archaeological Survey Report
- Historical Resources Evaluation Report
- Cultural Area of Potential Effects
- Community Impact Assessment
- Visual Impact Assessment
- Noise Study Report
- Air Quality Conformity Analysis and Report
- Wetland Delineation Report

III. Project Background and Need

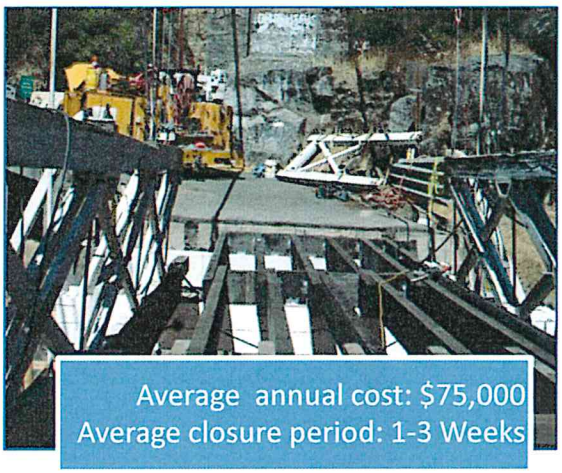
The original Mosquito Road Bridge, known as the "swinging bridge,'" was built in 1876 linking the communities of Mosquito and Swansboro to Placerville on Mosquito Road; originally a wagon trail. In 1939, the bridge was largely reconstructed while maintaining the 1876 foundations.

Mosquito Road is a narrow roadway that meanders through mountainous terrain and switchbacks in the steep SFAR Canyon. At the bottom of the canyon Mosquito Bridge spans the SFAR in a northwest-southeast direction, serving an average daily traffic (ADT) volume in 2015 of approximately 1,256 vehicles per day. The only other access roadway is Rock Creek Road to the north, with an ADT of approximately 220 vehicles. Due to the conditions of the existing bridge and bridge approaches, emergency and larger commercial vehicles and trucks are unable to cross the bridge. While Mosquito Road provides direct access to Placerville, Rock Creek Road provides a longer route via State Routes 193 and 49 (Exhibit E-2). Rock Creek Road can better accommodate varied types of vehicles, including first responders, but under high demands, such as during the 2014 King Fire, the windy narrow roadway with sharp turns is overtasked and traffic flow breaks down.

Caltrans and the Federal Highway Association (FHWA) Highway Bridge Program (HBP) have rated the Mosquito Bridge structurally deficient and functionally obsolete with a sufficiency rating (SR) of 12.5 out of a possible 100. Those bridges appearing on the list with a sufficiency rating of less than 50 are eligible for replacement or rehabilitation due to their poor condition and the fact that such structures do not meet current design and safety standards. Roadway approaches to Mosquito Road Bridge are also sub-standard due to a narrow, steep roadway, five tight hairpin turns—one on the south canyon face (Placerville side), and four on the north canyon face (Mosquito/Swansboro side).

In current times, the bridge requires extensive maintenance resulting in a road/bridge closure of one to three weeks per year at an average annual cost of approximately $75,000. The existing span across the river is a one-lane, 9-foot-wide, 160-foot long limited-capacity timber suspension bridge. The deck system and railing all consist of timber (See Photos 1-4 in Exhibit G). Those elements are supported on timber stringers that are attached at each end to vertical steel rods hanging from the main suspension cables. The existing bridge is posted to limit vehicle loads to 5 tons, along with vehicle size and dimensions. Trailers and large trucks are not permitted. Sharp, nearly 90-degree-angled turns onto the bridge and speeds across the bridge are generally less than 10 miles per hour (mph) due to the bridge's narrow width.

Annual Mosquito Bridge Repairs

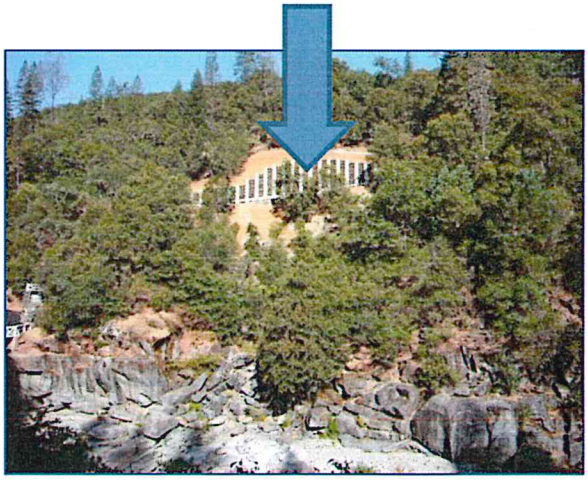


Average annual cost: $75,000
Average closure period: 1-3 Weeks

IV. Physical Environment

The general topography at the existing Mosquito Bridge site is characterized by moderate slopes changing to very steep slopes in the densely vegetated, steep canyon area. (See Photos 1-4 in Exhibit G and the topographical map in Exhibit E-2). The river is heavily bounded by bedrock in the banks and channels and large boulders and sharp rocks on the slopes.

Due to the physical characteristics of the site, Mosquito Bridge is in an area with a history of landslides and sudden slope failures. The Draft Field Exploration Map in Exhibit I identifies the "slope instability" zones in the project area. Past landslides have closed Mosquito Road for protracted periods of time and have required the construction of repairs such as solder pile walls and rock netting, to reopen the roadway. Most recently, a severe slide in 2006 led the County to declare an emergency and close Mosquito Road. With assistance from FEMA, the road was reopened in 2007 after completing a $3,000,000 repair project. (See photos below).



Soldier Pile Wall Constructed in 2007

V. Mosquito Bridge Replacement Project Description

Various alternatives were examined for the bridge replacement project to determine the most direct route over the river with the least environmental impact. The preferred alternative found to satisfy all the goals and objectives of the project is a new bridge with a vertical profile approximately 400 feet over the river (Exhibit C). This preferred alternative is on the most direct alignment across the river with very little skew, resulting in a main bridge length ranging from approximately 1,150 to 1,250 feet. It is anticipated that the new bridge over the SFAR would be a three-span, cast-in-place pre-stressed concrete box girder-type bridge with a maximum span of approximately 550 feet.

To comply with American Association of State Highway and Transportation Officials (AASHTO) and El Dorado County standards, the lane widths for the new roadway segments and on the new bridge would be 12 feet. Due to the steep mountainous terrain and to maintain consistency with the existing roadway leading to and from the site, the roadway shoulder would generally include a 4-foot paved area plus a 1-foot graded area. A 5-foot paved shoulder would be provided on the bridge next to a concrete barrier and railing. With these features the new bridge would be approximately 37.5 feet wide (34 feet clear width).

The Project involves an approximately 2,000-foot realignment of the roadway. The departure from the existing roadway on the south involves approximately 575 feet of roadway approach to the nearly 1,200-foot-long bridge, then a 300-foot northerly roadway approach where the alignment converges back to the existing roadway. The proposed Project would eliminate substandard roadway approaches that currently restrict vehicle access to the bridge—the one switch-back turn on the Placerville side of the canyon and the four severe switch-back turns on the Mosquito/Swansboro side of the canyon. A detailed discussion of the proposed Project and the description of Alternatives will be provided in the Environmental document upon issuance.

Existing Bridge: The existing Mosquito Bridge is proposed to be removed after traffic is shifted onto the new bridge. The Highway Bridge Program does not fund a transfer use, and once the new bridge is in operation, the old bridge comes off the County bridge list. Any future effort by the County or other agency to keep the old bridge for pedestrian use would be handled as a separate project apart from the HPB funding.

Upon removing the existing bridge, the suspension span components would be disassembled without impacting the river. The concrete supporting towers, short steel frames, and other bridge substructure would remain in place as a reminder of the old bridge location. Barricades would be installed at the end of the old roadway on both sides of the river. Mosquito Road will remain; however the roadway segments on each side of the river are proposed to be controlled by gates located below existing driveway encroachments. The gates will be closed to public vehicle access once the new bridge is open for use.

VI. Existing Public Access to Navigable River in Project Area

Mosquito Road Bridge is located within an approximately 10 river mile Class IV-V navigable section of the SFAR known as the "Slab Creek Run" that extends from Slab Creek Reservoir to Chili Bar Reservoir. In this section, the river follows a deep forested canyon that is usually not "boatable" due to flow controls; managed by the Sacramento Municipal Water Utility District (SMUD) at the Slab Creek Reservoir approximately 3.6 miles above the Project site. Flows are released through the Slab Creek Powerhouse into the SFAR to meet the minimum flow requirements prescribed under the Federal Energy Regulatory Commission (FERC) license: http://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/upprамrvr/uarp_ferc_license.pdf[1]

Under a new FERC licensing agreement issued July 23, 2014, SMUD is required to provide recreational flow releases, ranging from 850 cubic feet per second (cfs) to 1,500 cfs for six days in no less than three events in the period beginning March 1 and ending May31.[2] Such releases accommodate expert Class IV-V whitewater boating on the Slab Creek Run. Due to drought conditions and environmental protections measures, the number of releases each year may vary depending upon snowpack conditions, water temperature, results of monitoring programs and other factors impacting river use, habitat and fish and wildlife protection.

SMUD currently provides informal river access at the "put-in" location of Slab Creek Run 3.2 river miles above Mosquito Road Bridge. Under the new licensing agreement, SMUD proposes to develop a recreation plan for upgrading and expanding existing recreation facilities, including upgrading the existing access facility at Slab Creek Reservoir and reviewing options to enhance or build boating "take-out" facilities below Mosquito Bridge.[3] According to SMUD sources, the White House Powerhouse is no longer a viable boating take-out location due to vehicle access issues. An alternative site at the Rock Creek Powerhouse on property owned by the Bureau of Land Management is under review (Exhibit F).

The American Whitewater Association (AW) is a non-profit organization that serves as an advocacy group for whitewater recreation. On its website, AW states "*Mosquito Bridge is an alternate take out allows boating the steepest few miles (of Slab Creek Run) while avoiding Motherlode Falls and the easier water below. Unfortunately there are only 3 to 5 spaces at the bridge…..*" http://www.americanwhitewater.org/content/River/detail/id/147/.

While Slab Creek Run is known in the recreational boating community as an expert Class IV-V whitewater run (during recreational releases), Mosquito Bridge is not an official boating take-out site or authorized by El Dorado County for public river access. As such, there are no public parking facilities or formal trails that lead to the river's edge. In general the site is not conducive

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[1] U.S. Federal Energy Regulatory Commission, 148 FERC, 62,070, *Order Issuing New License, Sacramento Municipal Utility District, Project no. 2101-084, Page 86, July 23, 2014.*

[2] Ibid, page 89.

[3] Ibid, pages 59-60.

to supporting public access facilities due to steep vertically aligned slopes, rocky and dangerous terrain and geographical constraints. Additionally, as mentioned in the AW website, parking is extremely limited due to Mosquito Road narrowing to one lane at the bridge approaches.

During the re-licensing process, SMUD examined the Mosquito Road Bridge site for potential boating access and determined it to be an infeasible boating take-out location. SMUD concluded there are too many site constraints prohibiting the development of suitable vehicle parking or boater access from the river without extensive construction, excavation, environmental impact and cost. In an email dated December 15, 2015 to El Dorado County, SMUD stated it does not intend to develop the Mosquito Road Bridge site for recreational boating or other purposes, nor does the agency have plans to assume operations and maintenance responsibility for either the bridge or the adjoining road approaches to the existing bridge.

On December 8, 2015 Transportation reached out to stakeholders soliciting comments on the issue of river access within the vicinity of Mosquito Bridge Replacement Project. The invitation provided a project description and stated a river access feasibility study would be prepared as part of the proposed bridge replacement pursuant to CA Streets & Highway Code 991. Upon evaluating the written comments received, the Transportation prepared responses in conjunction with preparation of this Feasibility Study, provided in Attachment A.

VII. Alternatives Considered

The County has considered the following alternatives on the feasibility of providing access to the SFAR from the existing Mosquito Bridge site for recreational purposes in accordance with California Streets and Highway Code 991 and 84.5:

A. Public river access at the existing Mosquito Road Bridge site on the Placerville (south) side of the SFAR.
B. Access at the existing Mosquito Road Bridge site on the Mosquito (north) side of the SFAR.

Issues and potential impacts under Alternatives A and B include but are not limited to:

a. El Dorado County owns a prescriptive easement for Mosquito Road, but does not own the property, or have rights to the areas outside of the paved roadway edges.
b. El Dorado County does not own the land adjacent to the river, or have rights to the river, and as such it does not have the authority to grant access.
c. There is no adequate location to provide parking at either approach to the bridge on Mosquito Road.
d. El Dorado County would need to acquire private land or expand the existing prescriptive easement on Mosquito Road to provide parking at or near the bridge.

The closest feasible location is on the south side of the SFAR, approximately ½ mile from the bridge.

e. Due to the steep, rocky slopes between Mosquito Road and the SFAR, constructing pedestrian access would be extremely difficult, dangerous and costly to build.
f. Potential environmental impacts, protection of riparian habitats and best management practices will need to be considered and comply with local, state and federal regulations where applicable.
g. Construction of a river access facility would require extensive maintenance and on-going costly repairs.
h. River access facilities would likely be within the Dam Failure Inundation Zone of the Chili Bar and Slab Creek Dams.
i. Construction of a path, stairway or any other associated facility would require review and permits from various agencies, including the Bureau of Land Management, U.S. Army Corps of Engineers, U.S Fish and Wildlife, California Department of Fish and Wildlife, El Dorado County and others.

VIII. Preliminary Cost Estimates and Potential Funding Sources

The bridge replacement is funded through the Highway Bridge Program (HBP) and does not include funding for public access or the preservation and maintenance of the existing bridge. Therefore, detailed costs estimates were not prepared for the installation of a public facility at the existing Mosquito Road Bridge site. Based on the cost of the soldier pile wall constructed in 2007 on Mosquito Road, it can be assumed that construction of river access and parking/turn around facilities would entail a multimillion dollar project. The lack of buildable area would require cutting into the existing (unstable) slopes to develop facilities.

The project scope for providing access would vary based on negotiations with property owners and permitting agencies to determine the project location, access route, mitigation measures and accompanying facilities such as parking. Other considerations include the history of slides, risk factors and liability. Due to funding constraints under the Mosquito Bridge Project, future public access and maintenance efforts would be considered as separate projects and require separate funding sources. With limited funds for parks and recreation projects, the County would look to outside resources to fund a project, such as the California Department of Boating and Waterways Program.

IX. Coordination with Other Agencies

As previously mentioned, coordination with various agencies would be required to obtain the necessary permits to construct formal public access facilities. Such agencies may include, but not be limited to, the following:

• California Regional Water Quality Control Board

- United States Army Corp of Engineers
- California Department of Fish and Wildlife
- Bureau of Land Management
- US Fish and Wildlife
- Forest Service

X. Conclusion and Findings

The combination of land acquisition, topographical limitations, dangerous conditions, environmental impacts, funding constraints and constructions costs make the existing bridge site impractical for new public river access facilities. SMUD reached a similar conclusion when it examined the site as a potential take-out location to meet its license agreement. Any further discussions on the matter should include strong consideration of the physical limitations and geologic sensitivity of the site, along with the variations in high water mark levels and the lack of room for parking and safe turn-around areas.

Once traffic is shifted to the new bridge, the bridge approaches can be maintained by the County for limited restricted use for emergency vehicle access, utilities and maintenance. The estimated cost for maintaining both bridge approaches is approximately $8,000 per year. Pedestrian access will not be restricted from above the gates. However, the County cannot authorize parking on private property.

As a result of the study and conclusions, the El Dorado County Transportation Division makes the following findings:

1. Due to physical constraints, potential environmental impacts, cost, safety, and other reasons cited in the Feasibility Study, it is not feasible or practical to construct additional public river access facilities as part of the Mosquito Bridge Replacement Project at the existing Mosquito Bridge.
2. River boating access facilities on the Slab Creek Run are already being developed by SMUD. Conditions under the new UARP licensing agreement require SMUD to develop a whitewater boating recreation plan for the SFAR below Slab Creek Dam which includes the provision of public recreational boating access and parking at Slab Creek Reservoir and at or near the White Rock Powerhouse. http://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/uppramrvr/uarp_ferc_license.pdf
3. For safety reasons, once traffic is shifted to the new bridge, vehicular access on the bridge approaches (below the gates) should be restricted to maintenance, fire protection and other service and emergency vehicles.
4. Once the new bridge is constructed, it will be feasible for pedestrians and boaters to continue using Mosquito Road.

VICINITY MAP
EL DORADO COUNTY
NTS
PROJECT SITE
SOUTH LAKE TAHOE
LAKE TAHOE
FALLEN LEAF LAKE
STRAWBERRY
KYBURZ
LOON LAKE
ICE HOUSE RESERVOIR
UNION VALLEY RESERVOIR
STUMPY MEADOWS LAKE
QUINTETTE
SLAB CREEK RESERVOIR
MOSQUITO
POLLOCK PINES
CAMINO
JENKINSON LAKE
GRIZZLY FLAT
PLACERVILLE
PLEASANT VALLEY
SOMERSET
MT AUKUM
DIAMOND SPRINGS
EL DORADO
NASHVILLE
GEORGETOWN
GREENWOOD
GARDEN VALLEY
COLOMA
LOTUS
RESCUE
SHINGLE SPRINGS
CAMERON PARK
LATROBE
PILOT HILL
COOL
BASS LAKE
EL DORADO HILLS
FOLSOM LAKE
50
49
193
80
EXHIBIT A

PROJECT LOCATION

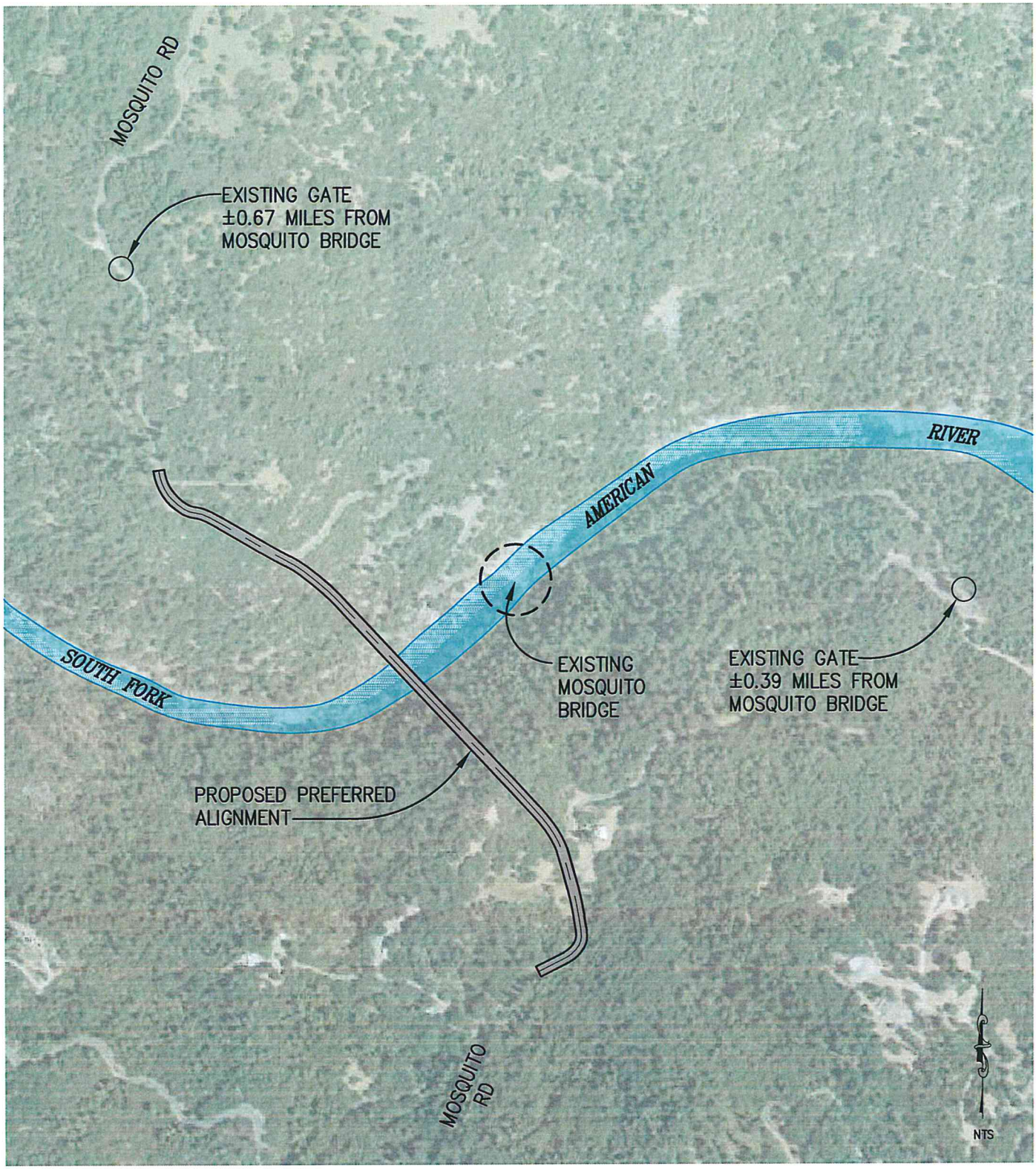
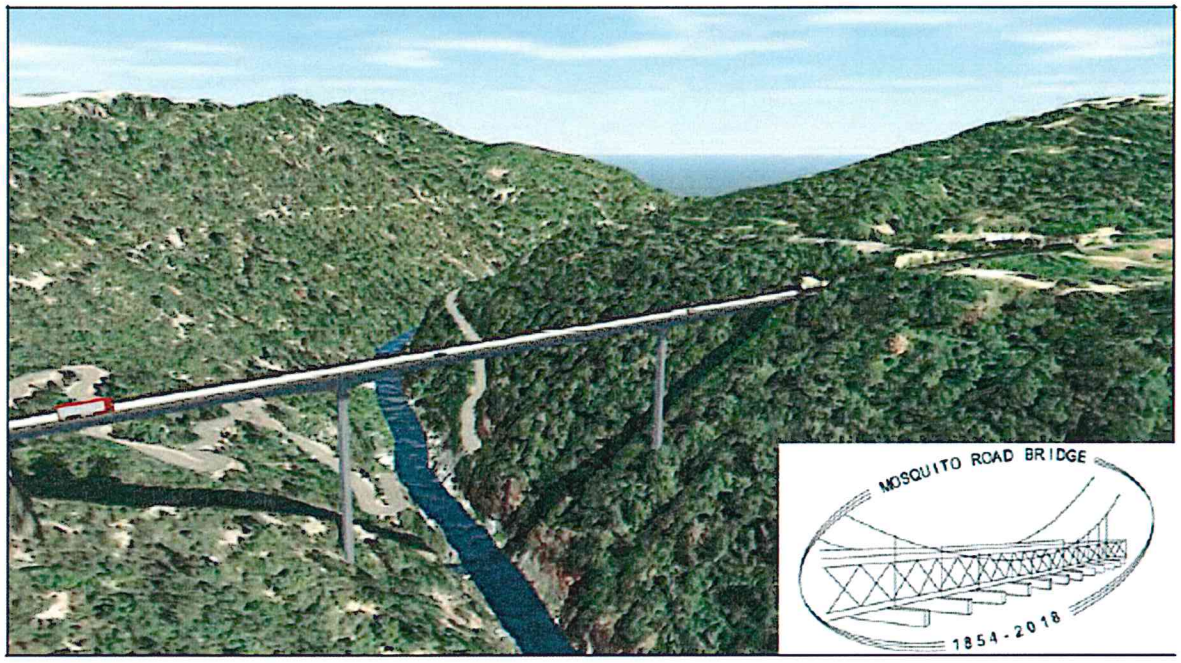
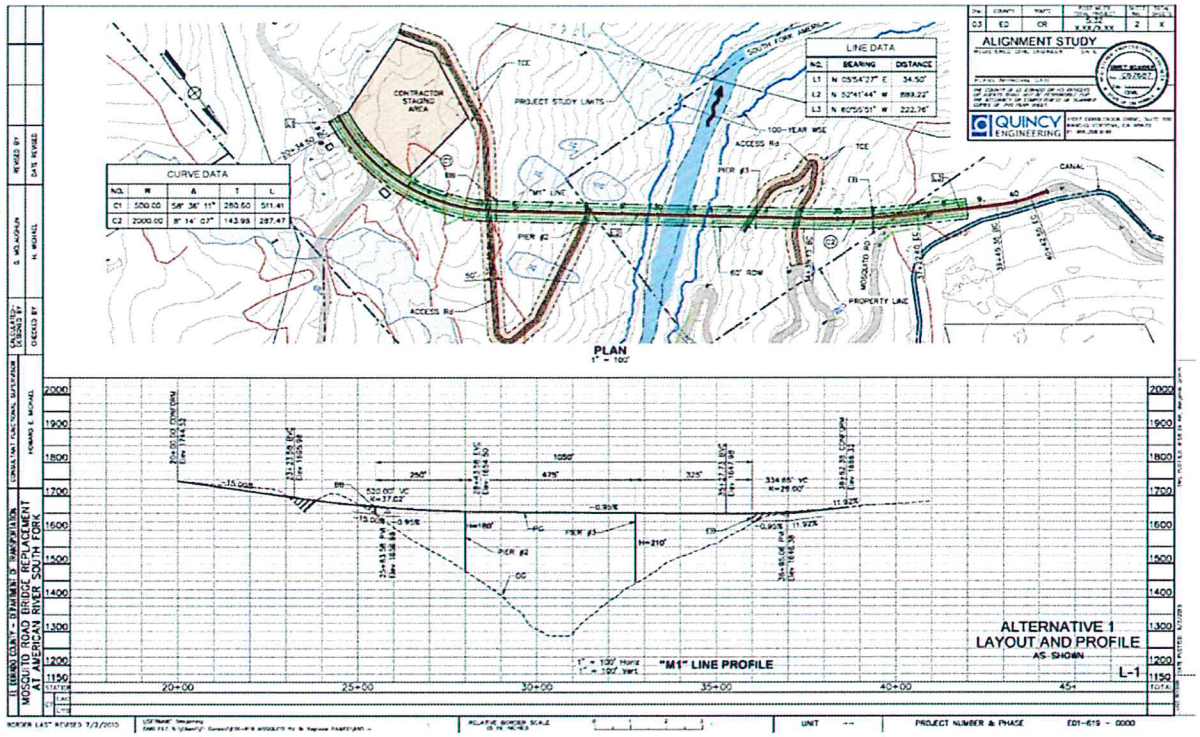


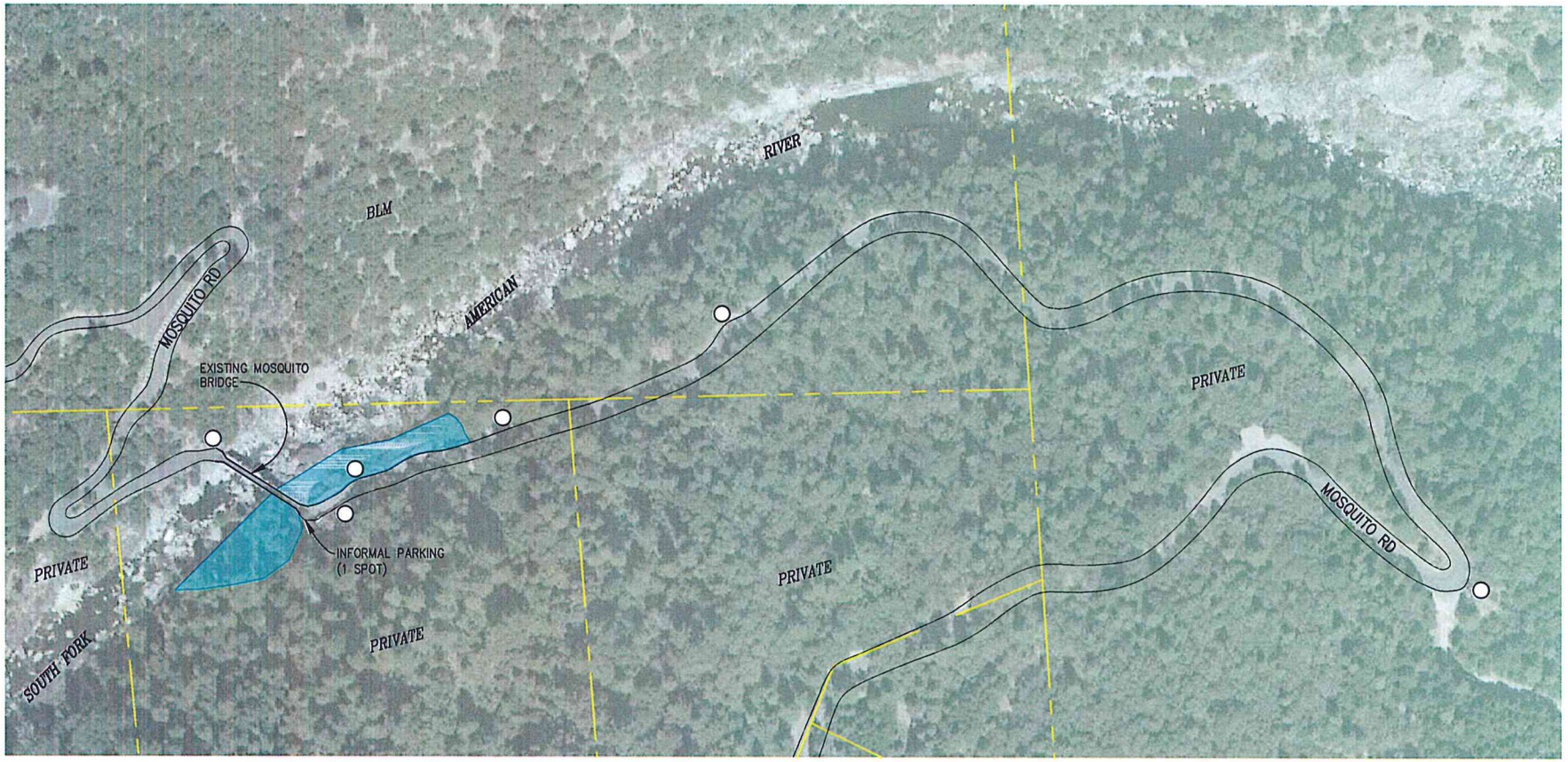
EXHIBIT B

Exhibit C: Mosquito Bridge Replacement – Preferred Alignment





MOSQUITO BRIDGE RIVER ACCESS CONDITIONS AND SURROUNDING OWNERSHIP



LEGEND

- TURNOUTS – NO AUTHORIZED PARKING
- INFORMAL BOATING TAKE-OUT AREA

NTS

EXHIBIT D

SLAB CREEK RUN - EXISTING RIVER ACCESS

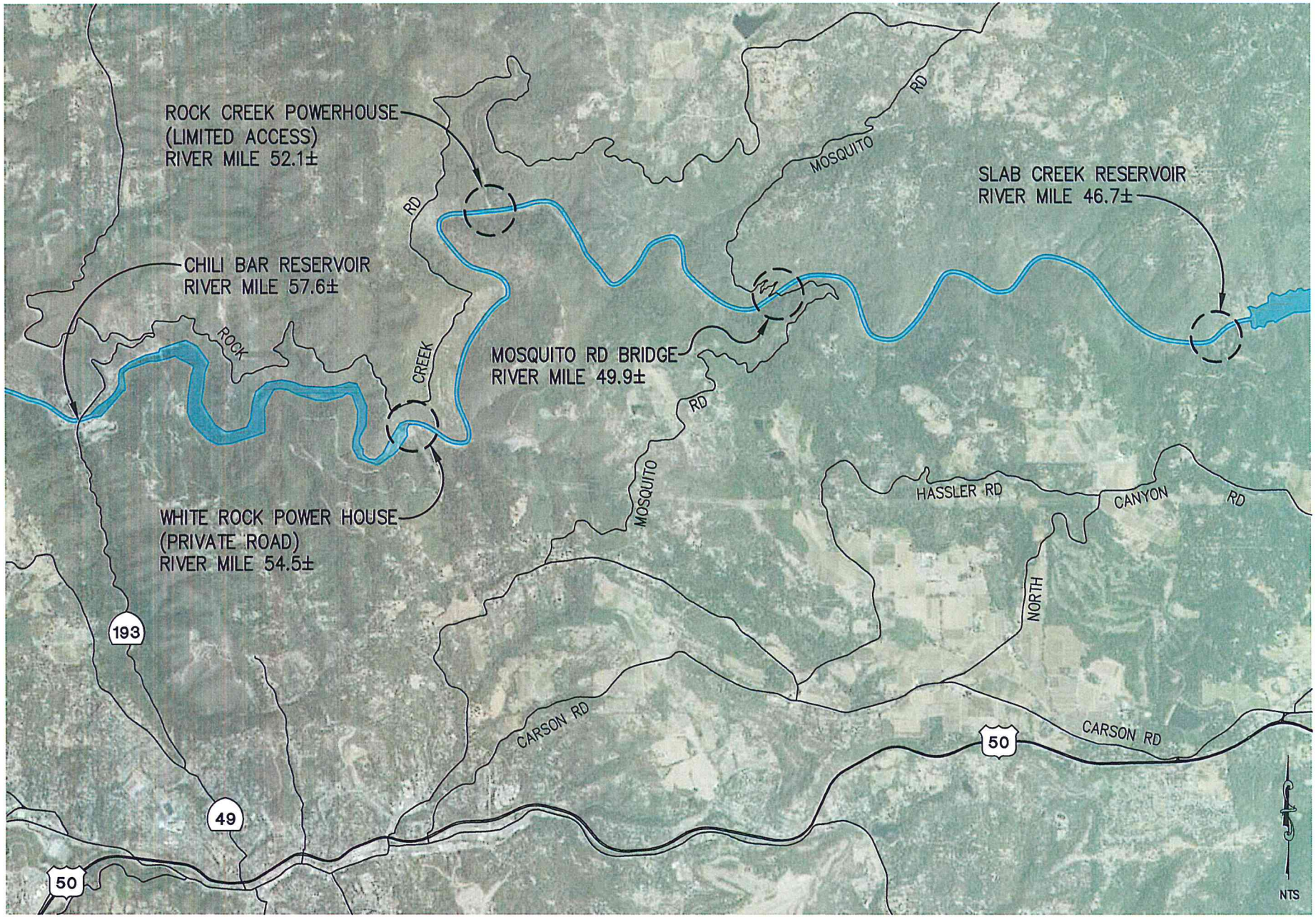
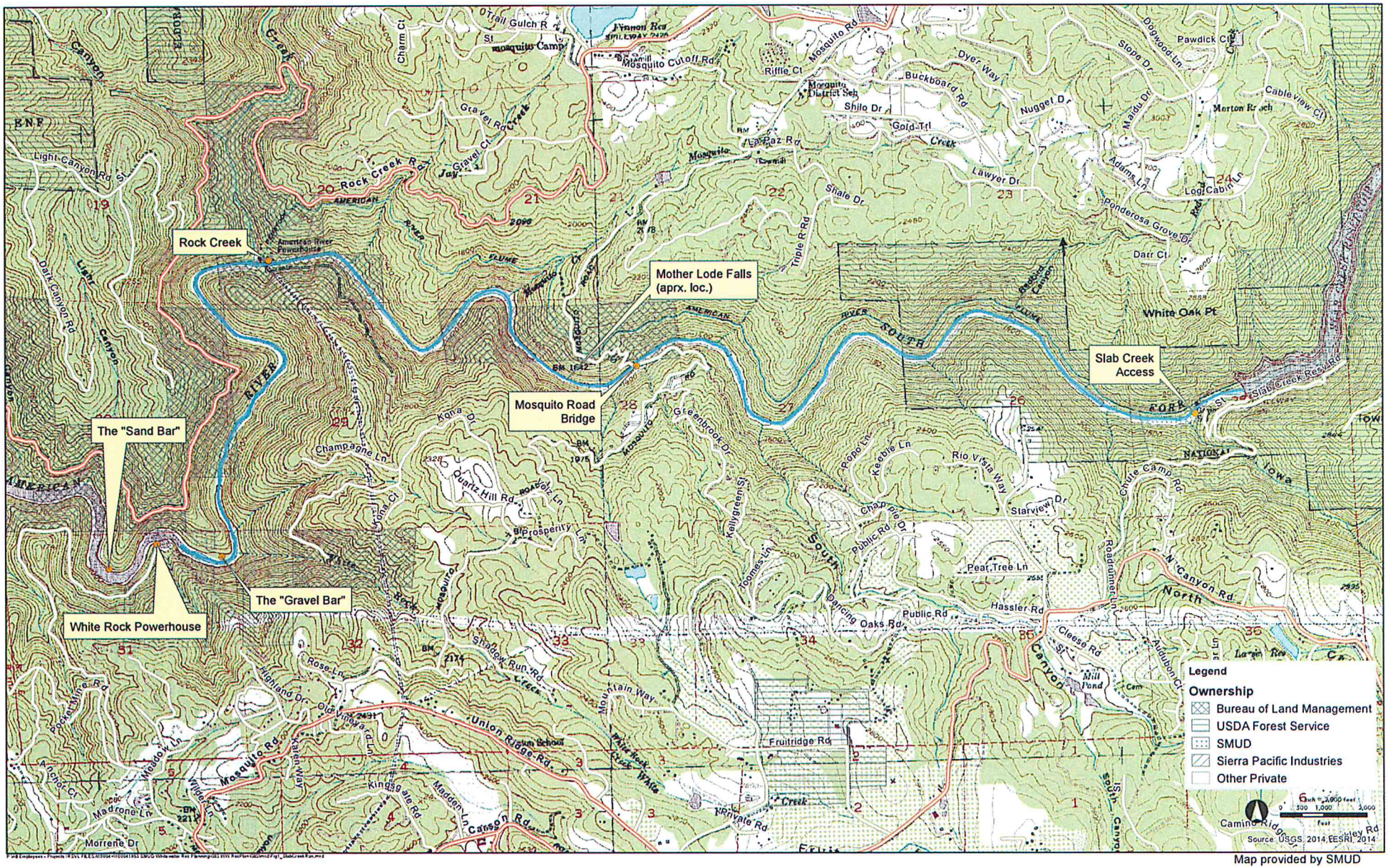


EXHIBIT E-1

EXHIBIT E-2 : SLAB CREEK RUN TOPOGRAPHY AND ROAD MAP



Map provided by SMUD

Exhibit E-2

SLAB CREEK RUN - PROPOSED RIVER ACCESS

EXHIBIT F

Exhibit G1- G4: Photos

Photo 1: Mosquito Bridge South Entry - Looking North

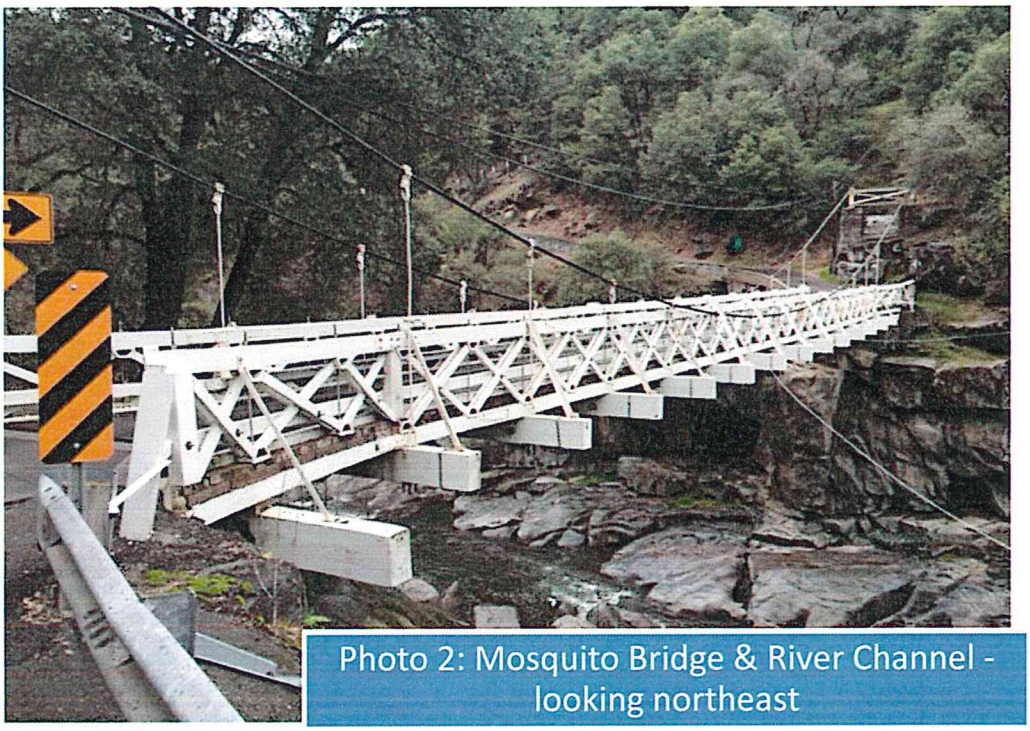


Photo 2: Mosquito Bridge & River Channel - looking northeast

Photo 3: South view below deck

Left: View toward south (Placerville) side of the river channel. Scheduled releases bring water levels significantly higher than shown. To take-out, boaters portage by climbing up the bedrock

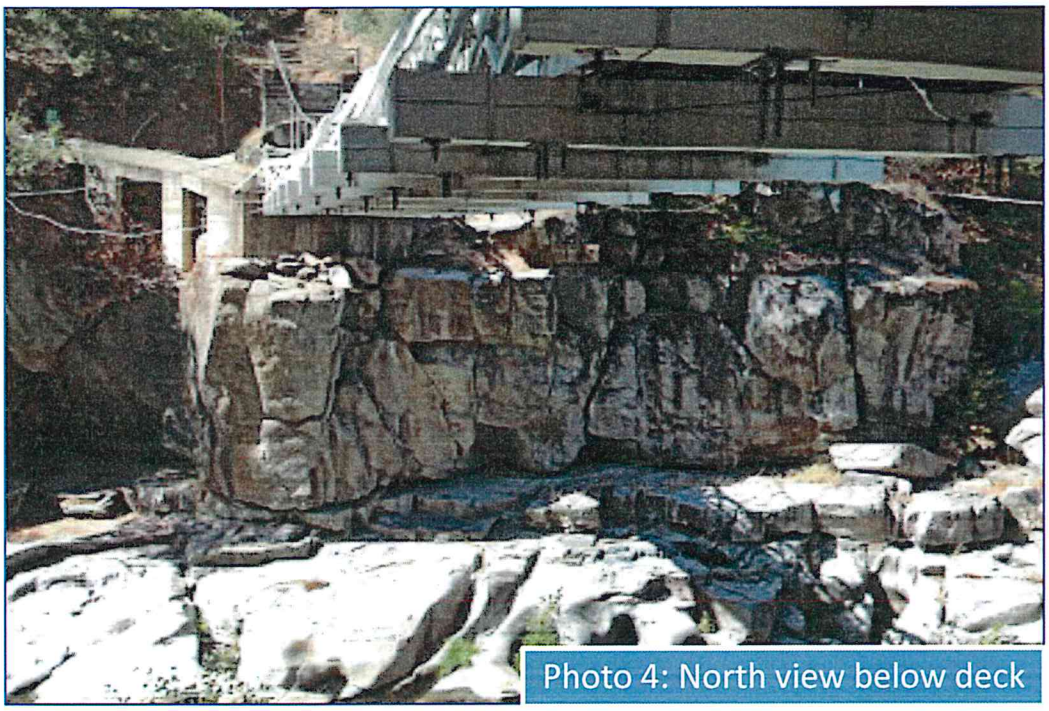


Photo 4: North view below deck

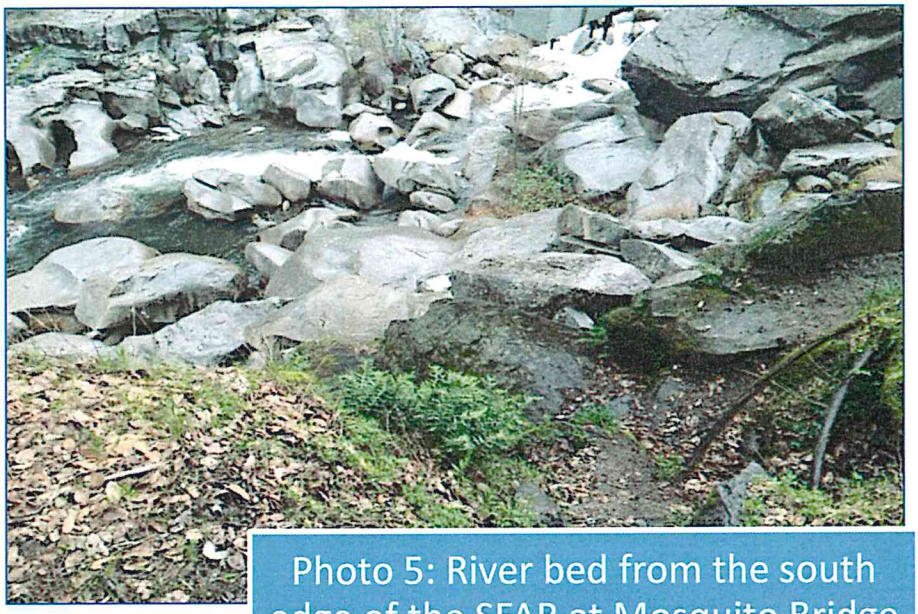


Photo 5: River bed from the south edge of the SFAR at Mosquito Bridge

Left: Evidence of pathways on the southwest side of the bridge entrance. Pathways are extremely steep and dangerous; not suitable for public pedestrian access.

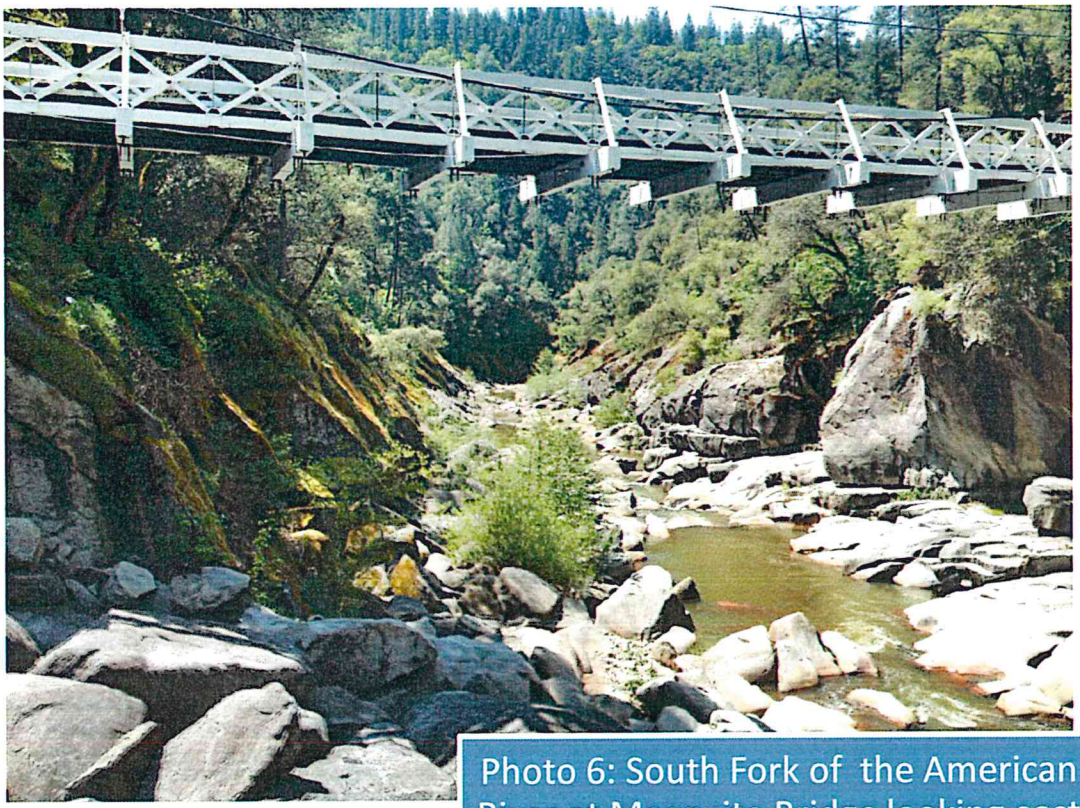


Photo 6: South Fork of the American River at Mosquito Bridge looking east

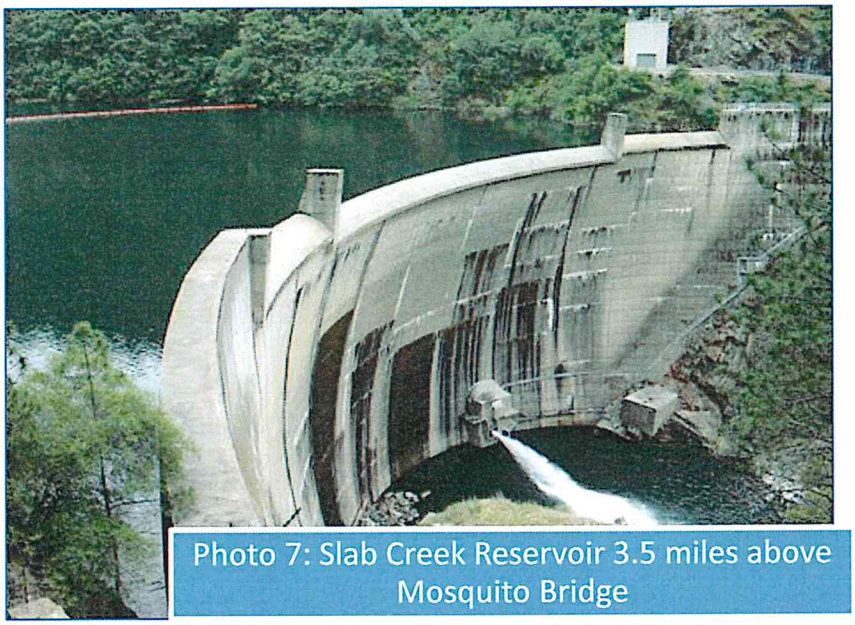


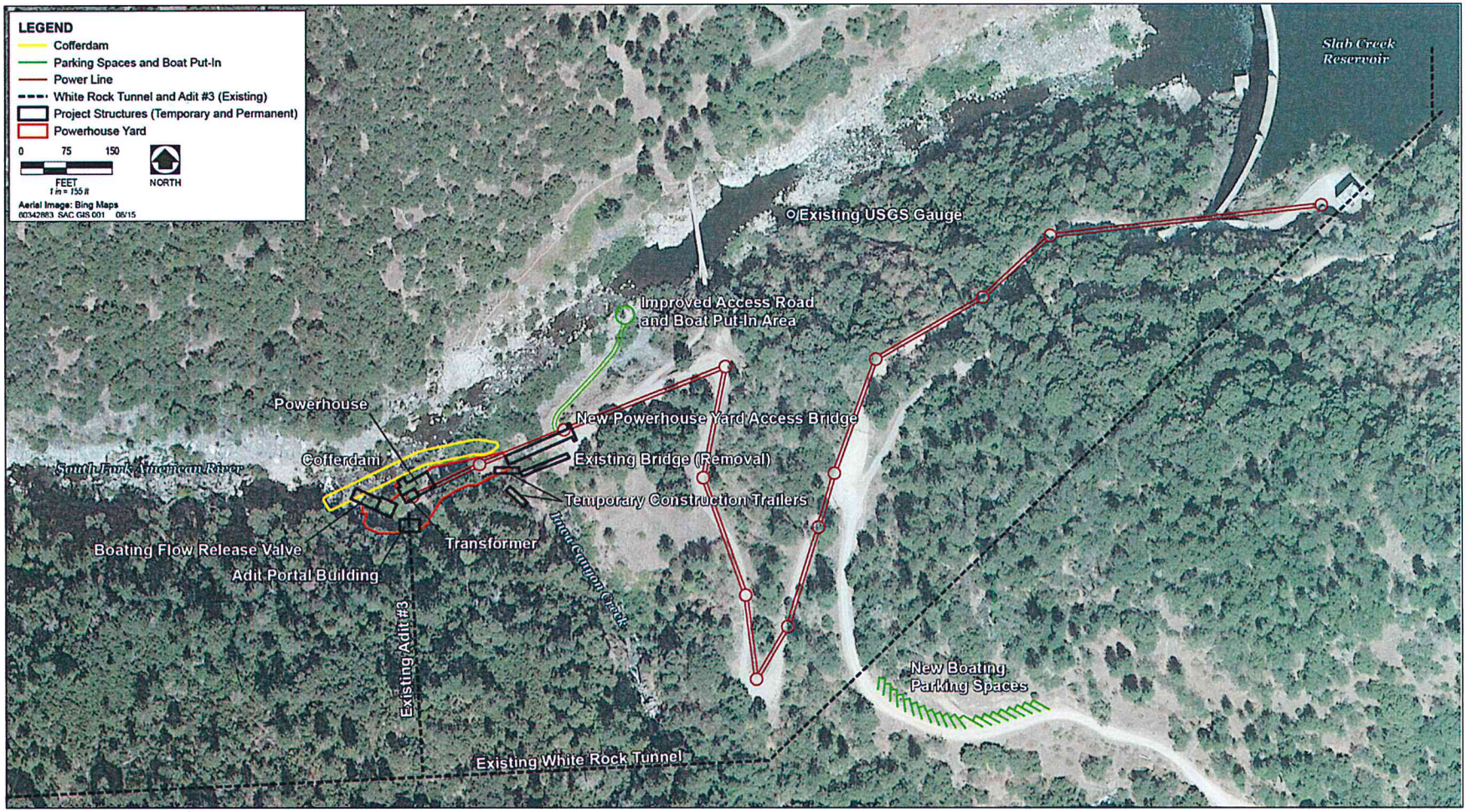
Photo 7: Slab Creek Reservoir 3.5 miles above Mosquito Bridge

Left: Slab Creek Reservoir (approximately 17,000 acre feet). According to SMUD past spills at Slab Creek Reservoir have been uncontrolled. Pending drought conditions, a new licensing agreement requires limited controlled releases for recreational uses starting in the spring of 2016.

Photo 8: South Fork of the American River during storm conditions

EXHIBIT H: BOAT ACCESS AT SLAB CREEK RESERVOIR

New Slab Creek Powerhouse and Boating Flow Release Valve Project
September 2015



Source: AECOM 2015

Figure provided by SMUD

EXHIBIT H

Exhibit I: Slope Stability Map
El Dorado County Transportation Division

Public Access to the South Fork of the American River at Mosquito Road Bridge Public Outreach and Response to Comments

Introduction

On December 8, 2015 the El Dorado County Transportation Division reached out to stakeholders soliciting comments on the issue of river access within the vicinity of Mosquito Bridge Replacement Project. (See Attachment B – Memorandum). The invitation provided a project description and stated a river access feasibility study would be prepared as part of the proposed bridge replacement pursuant to CA Streets & Highway Code 991. Upon evaluating the written comments received, the El Dorado County Transportation Division prepared the following responses in conjunction with preparation of the feasibility study to be presented to the County Board of Supervisors in August, 2016.

List of Commenters

A list of public agencies, organizations and individuals who provided comments on river access for the Mosquito Bridge Replacement Project is presented below along with a brief summary of these comments followed by responses.

• Commenter
• **Public Agencies**
• US Department of the Interior, National Park Service
• **Private Organizations and Non-Profits**
• Sacramento Municipal Utility District
• American Whitewater
• **Private Individuals**
• Mark Divittorio
• Brian Ginsberg
• Janet Hayes
• Darrick Hilbert
• Matthew Phillips
• Thomas Stuart
• Chris Tulley
• Jeff Wasielewski

Comment Summary and Responses to Comments

Public Agencies

1. U.S. Department of Interior, National Park Service.

On December 15, 2014 National Park Service submitted a letter stated that, as a participant of the Upper American River Project, the section between Slab Creek Dam and White Rock Powerhouse is a

popular 7.5 mile Class IV-V whitewater run and there are few take-out options for boaters. With increased recreational flow days, there will likely be more boaters. The commenter referenced California Streets and Highway Code 991 and provided recommendations for the scoping process and implementation.

Response: A River Access Feasibility Study was prepared in conformance with California Streets and Highway Code 991. The study addressed recommendations in the comment letter including identifying existing boating access and current and future recreation within the Slab Creek reach/run. The study determined access within the bridge right of way is infeasible within the existing geographic constraints of the project area. The construction of parking and river access facilities would be considered a separate project due to funding limitations under the Federal Bridge Program and would require extensive excavation leading to unavoidable environmental impacts and costs.

Private Organizations and Non-Profits

2. Sacramento Municipal Water Utility District

The Sacramento Municipal Water Utility District (SMUD) submitted a comment letter on December 15, 2015, stating that SMUD does not intend to develop the Mosquito Bridge site for recreational boating or other purposes, and has no plans or desire to assume operations and maintenance responsibility for either the bridge or the adjoining road approaches to the existing bridge.

Response: Comments noted.

3. American Whitewater

American Whitewater (AW) submitted three comment letters dated November 18, 2014, July 27, 2015 and December 31, 2015. The latter was in direct response to the 12-09-15 invitation for comments on controlled river access. As an advocate of whitewater recreation, AW stated it would like to see public river access included in all bridge design alternatives for the Mosquito Bridge Replacement Project. AW described the new licensing and recreational release requirements and noted requirements for complying with California Streets and Highway Code 991. The commenter also stated AW is working with Caltrans on river access for the Highway 49 bridge replacement and suggested the County follow the same components when preparing a River Access Feasibility Study.

AW stated it does not support removing the existing Mosquito Bridge; citing such action would be inconsistent with screening criteria for preserving the community character. Options for river access during construction were requested to be considered. Under preferred scenarios AW suggested the following: (1) providing year round access to the river; (2) maintaining the existing bridge for pedestrian access; (3) providing year round vehicle access on the south side of the river; (4) exploring the possibility of additional parking at two locations; and (3) improving pedestrian access to the river from the bridge. Alternative scenarios were also suggested if year round access could not be provided.

On the issue of funding, AW noted an existing Cooperation Agreement between SMUD and El Dorado County that provides $590,000 to be utilized by the County for purposes of road maintenance, watershed management, and other miscellaneous activities related to the UARP and its impacts on facilities owned or services provided by, or any resource or other interest within the jurisdiction of, the

County. AW suggested since SFAR below Slab Creek is well within the boundaries of the UARP it stands to reason that some of these funds could be utilized for maintaining river access at Mosquito Road.

Response: El Dorado County supports and provides for outdoor recreation facilities, including facilities that serve recreational boating. The County is also aware of the current FERC re-licensing agreement and the provision for recreational flows on the South Fork of the American River that will increase opportunities for boating the Slab Creek Reach.

Pursuant to Streets and Highway Code 991 and 84.5, a report on the feasibility of providing public access to the river for recreational purposes was prepared. After careful examination the report concluded that the existing Mosquito Bridge site is an infeasible formal take-out without incurring tremendous cost and environmental impact. Developing parking and public access facilities would require extensive right of way acquisition, and construction excavation which could potentially harm the riverine ecosystem and further destabilize steep and unstable slopes. The study points out that there are projects planned by SMUD to improve river access at the Slab Creek and White House or Rock Creek facilities.

El Dorado County proposes to remove the existing Mosquito Bridge from the County's inventory list when traffic is shifted to the new bridge. Efforts to preserve/maintain the existing bridge and provide public access would be treated as a separate project due to funding limitations within the Federal Bridge Program. Other entities and organizations are not precluded from submitting a proposal to take over the ownership, maintenance and liability of the existing bridge. The suggestion by AW and others to use funds from the Cooperation Agreement between SMUD and County for purposes of road maintenance, watershed management and other activities for preserving the existing bridge would have consequences to existing usage of funds and is the responsibility of the Board of Supervisors and SMUD decision makers. Mosquito Road is proposed to remain with restricted vehicle access and pedestrians will continue to be able to walk to/from the river.

Private Individuals

4. Mark Divittorio

The commenter submitted an email on December 30, 2015 with a request to improve conditions at the Mosquito Bridge take out.

Response: Comment noted. See responses under no. 3 above.

5. Brian Ginsberg

Mr. Ginsberg submitted an email on December 17, 2015 requesting considerations for parking and river access at the existing bridge site, with a preference for year round access. The commenter discussed the importance of the site for boaters/kayakers to have the option to take out at Mosquito Bridge to avoid Motherlode Falls below. The letter states future recreational releases will draw large crowds of paddlers which could potentially create parking issues and unsafe conditions if adequate parking is not provided.

Response: El Dorado County is aware some boaters / kayakers opt to take out at Mosquito Bridge to avoid Mother Lode Falls. Mosquito Road is proposed to remain with restricted vehicle access and pedestrians will continue to be able to walk to/from the river at their own risk.

6. Janet Hayes

Ms. Hayes submitted an email on December 20, 2015 stating support for retaining the Mosquito Road Bridge and providing year round vehicle access to the river, along with additional parking. Alternatively, the commenter suggested providing vehicle access in correlation with scheduled recreational flow releases with adequate turnouts and parking. Ms. Hayes also recommended using the annual funding from SMUD for maintenance of Ice House road could potentially be used for preserving the old bridge and providing river access facilities.

Response: See responses under no. 3 and 5 above.

7. Darrick Hilbert

The commenter submitted an email on December 21, 2015 stating he would like to see year round vehicle access on the south side of Mosquito Bridge, additional parking on both sides of the river and the existing bridge maintained as pedestrian walkway. If only seasonal access can be provided, Mr. Hilbert coordinating with scheduled seasonal recreational flow releases. If vehicle access is restricted, parking should be made available above the gates.

Response: See responses under no. 3 and 5 above.

8. Mathew Phillips

Mr. Phillips submitted emails on July 23, 2015 and December 23, 2015 stating support for bridge Alternative 1, high level bridge. The commenter stated the Slab Creek section of the South Fork of the American River possesses high quality rapids and is in high demand with expert whitewater enthusiasts. Mr. Phillips expressed that river access for recreational purposes is important and should be considered with high regard at Mosquito Bridge. A vehicle for emergency purposes should also be considered along with adequate parking.

Response: See responses under 3 and 5 above.

9. Thomas Stuart

The commenter submitted an email on January 1, 2016 stating that the maintenance costs associated with keeping the old bridge should be borne by the County and not by Mosquito residents. Mr. Stuart suggested looking toward the rafting industry for ways to fund the upkeep of the old bridge and stated the area will become a patrolling issue for the Sheriff and Fire Department with the influx of people who may come for recreational purposes.

Response: The Mosquito Bridge Replacement Project is funded by the Federal Highway Bridge Program, which does not provide funding for maintenance or preservation of the old bridge. El Dorado County agrees keeping Mosquito Road open would be challenging to monitor and patrol by the Sheriff's Department due to the difficulty to access and turn around.

10. Chris Tulley

On December 29, 2015 Mr. Tulley submitted an email in support of providing river access and maintaining the existing bridge. The commenter discussed the regional role and importance of whitewater recreation and expressed support for providing year round river access, additional parking on the south side of the river, maintaining the existing bridge for pedestrian use. The commenter stated

if only seasonal vehicle access or no vehicle access is provided, that parking and turnouts should be provided on both sides above the gates.

Response: See responses under no. 3 and 5 above.

11. Jeff Wasielewski

On December 20, 2015, Mr. Wasielewski submitted an email expressing interest in retaining access to the Slab Creek run on the SFAR and encouraged efforts to preserve and improve boater access on the south side of the existing Mosquito Bridge. The commenter also suggested using the annual payment from SMUD to the County to fund public access facilities.

Response: See responses under no. 3 and 5 above.

COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION
http://www.edcgov.us/DOT/

PLACERVILLE OFFICES:
MAIN OFFICE:
2850 Fairlane Court, Placerville, CA 95667
(530) 621-5900 / (530) 626-0387 Fax

MAINTENANCE:
2441 Headington Road, Placerville, CA 95667
(530) 642-4909 / (530) 642-0508 Fax

LAKE TAHOE OFFICES:
ENGINEERING:
924 B Emerald Bay Road, South Lake Tahoe, CA 96150
(530) 573-7900 / (530) 541-7049 Fax

MAINTENANCE:
1121 Shakori Drive, South Lake Tahoe, CA 96150
(530) 573-3180 / (530) 577-8402 Fax

DATE: December 8, 2015

TO: Interested Agencies and Individuals

FROM: El Dorado County Community Development Agency, Transportation Division

RE: Invitation to Comment: Mosquito Bridge Replacement Project – Controlled River Access

El Dorado County received federal funds to replace the existing Mosquito Bridge located 6 miles north of U.S. Highway 50, along Mosquito Road at the South Fork of the American River. The bridge does not meet current standards such as load requirements and bridge width. Currently, the bridge requires extensive annual maintenance resulting in long term road closures. Structurally, the bridge is rated near the bottom of all state bridges with a sufficiency rating (SR) of 12.5 out of 100. Bridges with a SR of < 50 are eligible for replacement under the FHWA Highway Bridge Program (HBP). The HBP will not fund non-vehicular use. Therefore, the existing bridge may or may not be removed, depending upon whether or not a source of funding can be found to finance the ongoing, high cost of maintenance necessary to keep it open, even for pedestrian use. If such funding cannot be found, the existing bridge will be removed as required by the HBP.

Mosquito Road is a rural narrow roadway that meanders through mountainous terrain and switchbacks into the steep South Fork American River canyon that narrows to a single lane near the bridge on both roadway approaches. These approaches to the bridge include five tight hairpin turns—one on the south canyon face (Placerville side), and four on the north canyon face (Mosquito/Swansboro side). The 9 foot wide bridge is restricted to only small vehicles; larger vehicles, such as those of first responders, and trucks are physically unable to access the bridge.

Due to reasons cited above, the County is considering a more direct crossing by raising the bridge profile approximately 400 feet, leaving the Mosquito Road approaches to the existing bridge no longer necessary to cross the canyon. The portion of Mosquito Road that leads to the existing bridge may or may not be abandoned, depending upon the interest in keeping it open on a limited basis or closed altogether. One option is to restrict this portion of the road to foot traffic, emergency and utility vehicles only. In this instance, however, minimal maintenance to the road would still be needed.

As a potential user/stakeholder to the old road on both sides of the river, the County is requesting your feedback as to preferences and your level of willingness to contribute to a share of the road maintenance.

Existing access to and from the river near the existing Mosquito Bridge is also the subject of a feasibility study the County will conduct as part of the proposed bridge replacement project pursuant to CA Streets & Highway Code 991.

Please submit your comments to me no later than December 31, 2015 using the contact information below. Thank you for your interest in the Mosquito Bridge Replacement Project. If you have any questions, please do not hesitate to contact me. Please be aware that you will have additional opportunity to comment on the project as a whole when the CEQA document is distributed to the public.

Janet Postlewait, Principal Planner
El Dorado County Community Development Agency
Transportation Division
2850 Fairlane Court
Placerville, CA 95667
(530) 621-5993 / FAX (530) 626-0387
janet.postlewait@edcgov.us

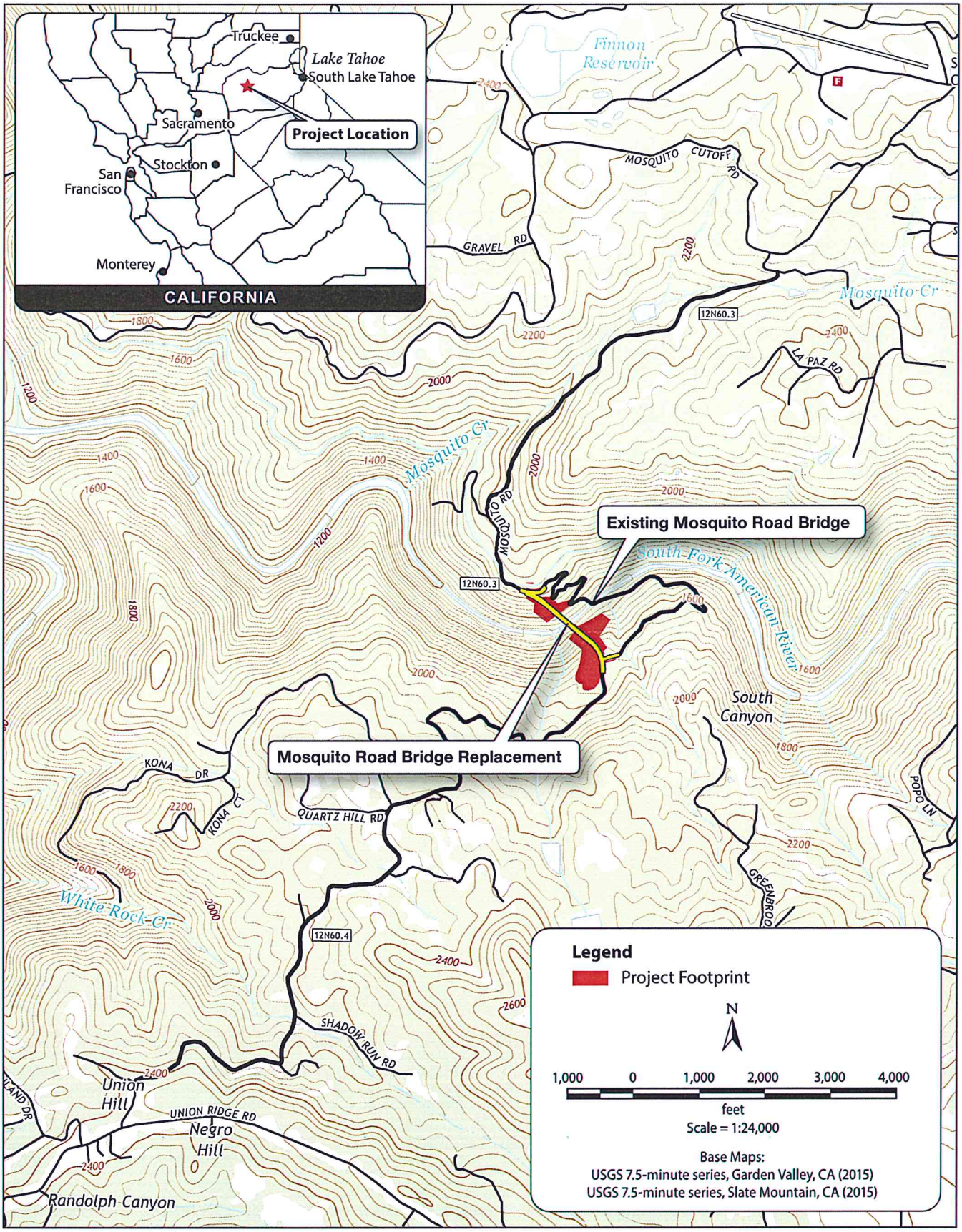


Figure 1
Location Map

Attachment B

Mosquito Road Bridge – Three-dimensional Images

Mosquito Road Bridge – Three-dimensional Images

The exhibits below are "still frame" images extracted from a three dimensional visual rendering video of the Mosquito Bridge Replacement Project. The video was presented at public meetings held on July 15, 2015 and October 26, 2016 in Swansboro Country, as well as at a Board of Supervisors meeting held on April 28, 2015. As shown, because only limited views of the new bridge would be possible, there would not be a significant change in the visual character of the area.

Exhibit A (above) depicts the proposed Project above the existing Mosquito Road Bridge as it would appear from an aerial view upstream of the existing bridge, looking downstream. **Exhibit B** (below) depicts the proposed Project above the existing Mosquito Road Bridge as it would appear from an aerial view downstream of the proposed Project, looking upstream.

Exhibit C (above) depicts the proposed Project as it would appear from the view of motorists traveling southbound on Mosquito Road (Swansboro side toward Placerville) approaching the new bridge.
Exhibit D (below) depicts the proposed Project as it would appear from the view of motorists traveling northbound (Placerville side toward Swansboro) approaching the new bridge.

Attachment C

Comment Letter O-4 Appendixes A and B

APPENDIX A
PUBLIC ENGAGEMENT DOCUMENTATION
EL DORADO COUNTY
MOSQUITO ROAD BRIDGE REPLACEMENT PROJECT

MOSQUITO ROAD BRIDGE PROJECT
PUBLIC WORKSHOP
Saturday, January 26, 2013
2:00 to 3:30 p.m.
Mosquito Fire Protection District Station 75
8801 Rock Creek Road, Placerville

COMMENTS & QUESTIONS SUMMARY

Following is a summary of the comments and questions regarding the Mosquito Road Bridge Project that were voiced by residents of the Mosquito and Swansboro communities who attended the public workshop on January 26, 2013.

In favor of 2-lane replacement bridge:

- Improve safety for all motorists (residents as well as visitors)
- Emergency response time will be greatly improved – could be reduced to 20-25 minutes for sheriff as well as fire/ambulance; now takes 45 minutes for ambulance to Marshall via Rock Creek Rd.
- Will improve emergency route in case of evacuation

Concerns regarding 2-lane replacement bridge:

- Traffic volumes will increase
- Will bring more people
- Crime will increase w/better access
- Will change rural character of the community

Option for 1-lane replacement bridge:

- Make it look “cute” like existing bridge

Keep current, old bridge (No Build Option, Keep Maintaining)

- Oldest working bridge
- Historical significance – don’t want to lose this piece of history

Preservation of Rural Character of the Community

- Current bridge limits visitors/usage; Concern that improving bridge will encourage future growth, negative impacts on rural character.

Want new replacement bridge at new location & keep existing bridge for pedestrian use

- Options do exist to keep old bridge (for ped/recreation use) & build a new bridge

Existing roads need SAFTEY improvements (not covered by the HBP funding)

- Roads are narrow with switchbacks/hairpin turns
- Recent fatal accident site on turn above bridge has no protection (no guardrail or reflectors)
- Obtain other funding to fix existing roads

Emergency response is big concern, but only way to fix is with larger bridges.

QUESTIONS & ANSWERS

EXISTING BRIDGE CONDITIONS

Is the bridge considered historical?
Answer: The existing bridge is not eligible for the Federal Registry, however, it does have local historical significance.

Does the bridge really need to be replaced?
Answer: The sufficiency rating justifies the option to replace the existing bridge. However, this will be analyzed in the updated study and alternatives will be presented for public input.

FUNDING

Will current 100% funding remain in place?
Answer: The 100% funding was originally a two-year pilot program started in 2010 to get projects into the program that did not have the local matching funds. If this project continues under existing HBP, 100 percent funding is locked in. If the project is discontinued, then resumed at a later date, 100 percent funding might not be available.

How much will HBP cover for the road?
Answer: Normally, up to 400 feet as needed to conform/transition to existing roadway alignment on each side of the bridge; however, longer approaches may be eligible for funding subject to justification and FHWA approval.

EXISTING ROADS

Will existing road stay the same?
Answer: The HBP funding will cover the cost to reconstruct the bridge in its ultimate location along with reasonable approaches to conform to the adjacent roadway. The remaining portions of the road will remain as is and will be maintained as part of the County's ongoing roadway maintenance.

Won't some of the problems be fixed with some of the alternatives?
Answer: Depending upon the alternative selected, some existing roadway deficiencies will be eliminated

What is traffic projection for 2020?
Answer:

When will Rock Creek Road be fixed where slide was?
Answer: Slide is being monitored and K-rail will be removed once the hillside stabilizes - potentially by Summer 2013.

EMERGENCY VEHICLE ACCESS / RESPONSE TIME

Would higher profile bridge alternatives improve emergency vehicle response times?
Answer: Potentially yes, depending upon alternative selected and fire service operations.

Will a new bridge accommodate emergency vehicle uses?
Answer: Yes, if the bridge is replaced, the new structure will accommodate emergency vehicles.

PEDESTRIAN ACCESS

Will a new bridge accommodate pedestrian access/foot traffic?
Answer: This is a design level decision that will be evaluated in the alternative selection process. Pedestrian access can be provided if determined to be a community priority.

Can the existing bridge stay as a pedestrian bridge?
Answer: Existing bridge must be removed from the federal maintenance system and an alternative needs to be found to pay for maintenance and liabilities. There may be other options such as Nature Conservancy, historical societies, but it is a challenge. Community assistance is needed to identify alternative maintenance and operations options to keep existing bridge for pedestrian use.

TRUCK ACCESS

Will a new bridge make Mosquito Road a truck route?
Answer: Mosquito Road will not be designated as a truck route; however, it will be available to any legally loaded vehicle.

ROAD CLOSURES / ALTERNATE ACCESS ROUTES

If Mosquito Bridge is closed during construction, what are the alternative routes?
Answer: Rock Creek Road would be the primary detour route with Mosquito Road / Sand Mountain Blvd as a secondary route. (Additional road maintenance would be required.)

RECREATIONAL USE

Will access to the river be provided?
Answer: This will be evaluated in the planning process and will be considered if a community priority.

RIGHT-OF-WAY ACQUISITION

Will private property be needed for the project?
Answer: Right-of-way will likely need to be acquired for the project. A formal process to evaluate, value and compensate property owners will be followed. Property owners have constitutionally afforded rights which will be provided for in this process.

STUDY / UPDATE SCHEDULE

Will updated study look at new/different alternatives from the 1993 study?
Answer: Potentially yes, if better alternatives can be identified.

Does Options 3 or 4 accommodate school buses?
Answer: Potentially yes, dependent upon the school district bus route determination.

Can an alternative matching the current design and location of the existing bridge be considered?
Answer: Yes, provided it can be made to meet current safety standards.

What is the project schedule?
Answer: A tentative project schedule is provided in the Project Fact Sheet . See project website: http://www.edcgov.us/MosquitoBridge/

CONSULTANT / CONTRACTOR SELECTION

How will the consultant be selected? Will they be familiar with the area and particular community needs?
Answer: The consultant is being selected based upon their qualifications specific to this project in a formalize process. The selected consultant will be very familiar with the project site and surrounding area. Their scope of work will include collecting and prioritizing community needs and their work will be fully supervised by County staff.

Can an accelerated design/build process be utilized for this project?
Answer: Most likely not; however, delivering the project in a timely manner is a priority and schedules for each item of work will be provided to deliver the project as quickly as possible.

QUANTIFICATION OF PUBLIC OPINION ON ALTERNATIVES

How will public opinion on the alternatives be quantified?
Answer: When alternatives are developed, a survey of the community preferences will be conducted and results included in the finalized study.

Will these comments be posted online? The comments received at public workshops will be summarized and posted on the project website: http://www.edcgov.us/MosquitoBridge/

Mosquito Road Bridge Replacement Project

Public Workshop #2

November 15, 2014 1:30pm – 3:30pm

Mosquito Fire Protection District

Q&A Session Log

The following questions were recorded during the meeting:

1. When will it be constructed?
    - A: Approximately beginning 2020.
2. How will you determine the alternatives?
    - A: Currently the County and the design consultant team are undertaking geological, environmental and other technical studies to understand and evaluate the site constraints and opportunities within the project area. In addition, the County is undertaking a comprehensive public engagement process to collaborate with and receive input from the community at key milestones during this process. Based upon the technical analysis and public input, the project team will develop several alternatives, evaluate and eliminate alternatives based upon the technical analyses and public input. Ultimately, one recommended preferred alternative will be presented to the County Board of Supervisors who will make a final decision to advance to final design and then construction.
3. Will the line of sight of the road change?
    - A: It depends on the alternative selected. Low level alternatives will largely maintain the view shed of the existing roadway and canyon. Mid and upper level alignments will alter the view shed, but will still provide views of the canyon.
4. Will you announce which alternatives will continue to be studied at the public meetings?
    - A: Yes. I. Additionally, alternatives considered for rejection will be presented to the public with reasons for the proposed rejection to gather further input from the public. In this way, the public will be involved throughout the process and will better understand how the final three alternatives studied in the environmental document are determined, and ultimately how the preferred alternative is chosen..
5. How can you sign up for information if you don't have a computer?
   A: Please provide your contact information, such as name and mailing address, and request the information desired to Janet Postlewait at 2850 Fairlane Court Placerville, CA 95667.
6. What does it take to make a project fundable?
    - A: The project must adhere to the Highway Bridge Program (HBP) requirements. HBP is a federal program administered by the Federal Highway Administration (FHWA), who has delegated authority of the HBP to Caltrans in California. The HBP has strict

guidelines for bridge replacement projects and for what the FHWA considers participating project components. Typical factors that are considered include current and future traffic volumes, traffic accident history, current roadway and bridge standards, a maximum of 400 feet of roadway approach on each end of the bridge, and maintaining traffic circulation during construction which can influence the alignment and location of the replacement bridge. Sometimes, justification can be made for components not normally acceptable for federal funds, such as longer roadway approaches. This project is very unique in its characteristic of difficult access to and from the bridge and may result in non-typical features, such as longer roadway approaches, longer bridge, etc., being funded by the HBP.

7. Will the alternative need Caltrans approval?
    - A: Yes. Due to the federal funding source, and FHWA's delegation of authority to Caltrans to administer the HBP, Caltrans approval of the alternative is necessary. This is not to say that Caltrans will be involved in the development of the alternatives. The County and its design consultant will develop the alternatives based on the project's criteria, which involves public input, and will present the alternatives to Caltrans to obtain their input regarding alternative's fundability. Assuming multiple alternatives are deemed fundable by Caltrans, then the process for alternatives selection will only involve engineering studies and public input.
8. Is funding approved through construction?
    - A: Yes. Funding is made up of HBP funds and Toll Credits which will not require any local funds for an alternative deemed fundable by Caltrans.
9. Which of the bridges will be funded?
    - A: Many bridge types are fundable. The County and its design consultants will present various types of bridges to Caltrans for their input.
10. What will happen to the old bridge?

A: The outcome of the existing bridge will be handled by the County as a separate project. This bridge replacement project will focus on the new bridge and connecting roadways. We are currently in the planning process and this includes studying the potential for the existing roadway and bridge to remain in place. The future ownership and responsibility of the existing roadway and/or bridge is an important consideration in this process.

Mosquito Road Bridge Replacement Project
Public Workshop #2
November 15, 2014 1:30pm – 3:30pm
Mosquito Fire Protection District

Hence, the reason for segregating the planning study task of the existing routes future from new bridge, but yet considering impacts and connectivity of the existing route during the planning process.

- o

11. Do you seek Board of Supervisors approval before or after Caltrans's approval?
    - o A: Caltrans will be involved throughout the development of this project which means the County will obtain Caltrans' input on the alternatives to avoid moving forward with alternatives that Caltrans will not support from a funding standpoint. The Supervisors will ultimately decide on an alternative to be designed and constructed that Caltrans has already deemed fundable.
12. Is Caltrans the ultimate authority?
    - o A: Caltrans and FHWA are responsible for determining which alternatives are fundable. Caltrans is not responsible for the development of alternatives.
13. Will Caltrans attend the public meetings?
    - o A: The County has invited and will continue to ask Caltrans to attend public meetings. Caltrans has hundreds of bridge replacement projects and cannot attend all public meetings. The County will also meet with Caltrans separately to keep Caltrans abreast of the development of the alternatives.
14. During the evaluation process at what time will the public be able to look at them?
    - o A: The County will gather and respond to input from the public throughout the development of the alternatives. The County and the project team will meet with the community at key milestones. Currently the County has three additional community meetings planned to discuss and collaborate with the community on the narrowing of alternatives.
15. Please make sure that the bridge is constructed by an American construction firm with American materials.
    - o A: FHWA requires that the selection of the California licensed contractor is based on the lowest responsible bid and that American steel materials are used.
16. Will information on the slide areas be available on the web?
    - o A: Yes.
17. Will right of way acquisition be transparent?
    - o A: As the alternatives are developed, the County and project team will coordinate and negotiate with each affected property owner for the possible necessary right of way. As alternatives develop, potential right of way limits will be shown on exhibits and plans.

Mosquito Road Bridge Replacement Project
Public Workshop #2
November 15, 2014 1:30pm – 3:30pm
Mosquito Fire Protection District

18. Are the alternatives numbered by priority?
    - A: No. At this time alternative numbers are simply established by passing west to east for sequential numbering.
19. Is it a two lane bridge?
    - A: The proposed new bridge will be two lanes wide with standard shoulders.
20. Will there be a divider in between lanes?
    - A: No.
21. How high will the bridge be?
    - A: This depends on the alternative selected.
22. How wide will the bridge lanes be?
    - A: The proposed bridge will consist of two 12-foot wide lanes with 5-foot shoulders on each side for a total of a 34-feet width bridge
23. Will trailers be allowed?
    - A: Yes. The new bridge project limits are required to be designed to accommodate all types of vehicles, including large trucks, trucks with trailers, and all emergency vehicles.
24. What criterion comes first? Guard rails or speed limit?
    - A: Speed limit. The speed limit determines the necessity and type of guardrails.
25. Is there consideration of a link from a new bridge approach to possible new and/or reformed roads in the future?
    - A: This is a bridge replacement project. Future roadway projects are separate from this project. See Q&A #10.
26. Will the alternative closest to original bridge be able to hold trailers, etc.?
    - A: Yes. The new bridge and any reconstructed roadway approach will be designed and constructed to accommodate various vehicle/trailer combinations. But remaining switch backs (hairpin turns) will continue to limit access to any new lower level bridge as they currently limit access.
27. Are you going to maintain this new bridge if it is subject to graffiti?
    - A: The new bridge can be designed to discourage graffiti such as using graffiti resistant materials and finishes.
28. Are lower level alternatives discounted due to lack of access and approach for safety considerations?
    - A: Yes. Safe access and access for construction are criterion that all alternatives are being measured by.

Mosquito Road Bridge Replacement Project

Public Workshop #2

November 15, 2014 1:30pm – 3:30pm

Mosquito Fire Protection District

29. Can Caltrans be asked to drive road for context?
    - A: Yes. The County has provided Caltrans staff with a site visit of the bridge site more than once.
30. Where will funding come for repairs to current roads?
    - A: Repairs to existing roadways is subject to available local maintenance funds. Each need for repair is assessed based on other such needs within the county and prioritized based on limited funds. This is an ongoing process that does not end.
31. How will alternative routes be considered during construction?
    - A: Given the 23 mile detour, detouring is a criterion that each alternative is being measured by. Some alternatives will require a longer duration for detouring than others. Each alternative will likely require some level of detouring regardless. But the development of each alternative is taking this into consideration so as to minimize detouring to the extent practicable.

DATE: July 24, 2015

TO: El Dorado County Community Development Agency, Transportation Division

ATTN: Janet Postlewait, 2850 Fairlane Court, Placerville, CA 95667

FROM: Violet Jakab PE 26879; 6556 Yankee John Ct, Placerville CA 95667

vjakab79@gmail.com; 530-622-6048

RE: Mosquito Road Bridge CEQA Notice of Preparation of EIR-Comments

Dear Ms. Postlewait,

My name is Violet Jakab and I reside in Swansboro. I am also member of American Whitewater and have been and am a whitewater boater since 1994. I actually became aware of the existence of the Mosquito Road Bridge and the picturesque Swansboro/ Mosquito community, while rafting the Slab Creek Run of the South Fork of the American River. This whitewater run is extensively used every time there is adequate release from Slab Creek Dam.

Being a Civil Engineer, and resident of Swansboro, I am very aware that the existing bridge is structurally deficient and functionally obsolete access to the Mosquito/Swansboro communities. As a whitewater boater and avid hiker I know that the bridge at Mosquito Road is a a vital and very rare **PUBLIC access point to the South Fork of the American River between Slab Creek Dam and Chili Bar Reservoir**.

Comments on the NOP Scoping & Alternatives for Final Study are as follows:

1. Since the evaluation criteria under Safety and Operations included Recreation and River Access, each of the alternatives (low level, mid level and high level) for the Final Study and Draft EIR must include a detailed description and analysis of the river access including improvements, environmental impacts and right of way needs if applicable.

2. Under criteria for Safety and Operations Bridge Washout from dam-break was a screening criterion. The potential effect of dam break and subsequent flooding on the access improvements must also be addressed.

3. Construction traffic handling was one of the screening criteria. Off-site detour. Onsite detour and Traffic Maintenance during construction must be addressed. We live up here, have emergency needs and want and need to access the river during construction.

4. Community character was another screening criteria for the three alternatives selected. All three drawings DA-1 Impact Areas Alt 1 (High Level), DA-2 Impact Areas Alt 6 (Mid-level) and DA-3 Impact Areas Alt 8 (Low Level) clearly indicate “REMOVE BRIDGE”, pointing to the existing facility. At the Public Workshops the fate of the existing bridge was questioned by the public and the removal of the existing bridge was never disclosed. The rural character and history of the community includes the preservation of the existing bridge.

I appreciate this opportunity to comment on the project and look forward to the review of the Final Study and Draft EIR.

Theresa L. Simsiman <theresa@americanwhitewater.org>

NOP of EIR Mosquito Road Bridge Comments

Janet Postlewait <janet.postlewait@edcgov.us> Mon, Jul 27, 2015 at 2:54 PM
To: "Theresa L. Simsiman" <theresa@americanwhitewater.org>

Thank you, Theresa! Your comment will be considered during the preparation of the EIR. Feel free to contact us with any questions you may have.

Janet Postlewait
Principal Planner

El Dorado County Community Development Agency
Transportation Division
2850 Fairlane Court
Placerville, CA 95667
(530) 621-5993 / FAX (530) 626-0387
janet.postlewait@edcgov.us

On Mon, Jul 27, 2015 at 1:10 PM, Theresa L. Simsiman <theresa@americanwhitewater.org> wrote:

> Hi Janet,
>
> Please accept the attached as our comments regarding the scope and information we would like addressed in the EIR for the Mosquito Road Bridge Replacement Project.
>
> Feel free to contact me with any questions.
>
> Thanks for your time!
>
> Theresa L. Simsiman
> California Stewardship Assistant
> American Whitewater
> 916-835-1460

Dave Steindorf
California Stewardship Director
Theresa Simsiman
California Stewardship Assistant
4 Baroni Drive
Chico, CA 95928

July 27, 2015

Janet Postlewait
El Dorado County DOT
2850 Fairlane Court
Placerville, CA 95667

Dear Ms. Postlewait,

American Whitewater appreciates having the opportunity to provide comment on the Notice of Preparation of an Environmental Impact Report for the Mosquito Road Bridge Project. As was detailed in our letter to your office dated November 18, 2014 - a significant percentage of our members that reside in and travel to California enjoy the many recreational opportunities provided by the South Fork American (SFA) River. One specific SFA reach is Slab Creek which runs under the current Mosquito Road Bridge.

Our letter outlined Slab Creek would have regular recreational flows provided by the Sacramento Municipal Utility District (SMUD) as mandated by Hydropower FERC Project #2101 License conditions from the California State Water Resource Control Board (SWRCB), United States Forest Service (USFS) and the Bureau of Land Management (BLM).[1] As such we advocate for continued public access to this resource at Mosquito Road Bridge and provide the following comments regarding the scope and content of the information to be included in the EIR.

Consider recreational access scoping and information for all alternatives - Alt 1 (High Level), Alt 6 (Mid-Level) and Alt 8 (Low Level) - that help the county comply with California Streets and Highway Code 991.

Again refer to our letter to your office dated November 18, 2014 which suggested components to help comply with California Streets and Highway Code 991 including:

- Define and implement a scoping process for a River Access Feasibility study
- Determine potential recreational access points

[1] FERC Order Issuing New License for the Upper American River Hydroelectric Project #2101 is available on the Commission's website from the eLibrary feature at http://www.ferc.gov/docs-filing/elibrary.asp . Accession number 20140723-3046 - Condition 4. Recreation Streamflows Page 91 and Condition 50. Recreation Streamflows Page 208

- Establish and describe right of ways for recreational access
- Identify potential funding sources for recreational access
- Make a formal and transparent determination for recreational access

Removal of the Mosquito Road Bridge is not consistent with screening criteria for preserving the community character.

The local community and recreational advocates strongly support the preservation of the historical Mosquito Road Bridge. American Whitewater notes all three alternative drawings presented at your workshop DA-1 Impact Areas Alt 1 (High Level), DA-2 Impact Areas Alt 6 (Mid-Level) and DA-3 Impact Areas Alt 8 (Low Level) contain language to "REMOVE BRIDGE". Given that the management of the existing bridge will not be considered under the scope of this project, any such language/plans to remove the old Mosquito Road Bridge during the construction of the new project should be excluded until a proper public and transparent process has been undertaken.

Consider river passage & river access during constructions for all three bridge alternatives.

Again, American Whitewater requests that the County consider and fully vet options to insure river navigability and access on the South Fork American River at Mosquito Road Bridge during construction.

Sincerely,

Dave Steindorf
American Whitewater
California Stewardship Director
530-518-2729

Theresa L. Simsiman
American Whitewater
California Stewardship Assistant
916-835-1460

Att: American Whitewater Comments
November 18, 2014

MOSQUITO ROAD BRIDGE PROJECT
PUBLIC WORKSHOP
Saturday, January 26, 2013
2:00 to 3:30 p.m.
Mosquito Fire Protection District Station 75
8801 Rock Creek Road, Placerville

Hosted by
El Dorado County Community Development Agency
Transportation Division

WORKSHOP AGENDA

2:00 – 2:30 p.m. Open House
2:30 – 3:00 p.m. Presentation
3:00 – 3:30 p.m. Q & A

1. **Welcome & Introduction** – Anne Novotny
2. **Bridge Facts / Current Conditions** – Matt Smeltzer
3. **Highway Bridge Program Funding** – Matt Smeltzer
4. **Study Update / 1993 Study Alternatives** – Adam Bane
5. **Bridge Design Examples** – Matt Smeltzer
6. **Project Delivery Process / Schedule** – Anne Novotny
7. **Next Steps for Public Input** – Anne Novotny
8. **Open Question & Discussion Period**

MOSQUITO ROAD BRIDGE REPLACEMENT PROJECT

PUBLIC WORKSHOP

Saturday, November 15, 2014

1:30 to 3:30 p.m.

Mosquito Fire Protection District Station 75

8801 Rock Creek Road, Placerville

Presentation and Workshop Topics

- **Project Recap to Date**
- **Process and Schedule**
- **Alternative Overview**
- **Screening Criteria and Analysis**
- **Aesthetic Themes Overview**
- **Next Steps**
- **Q & A**

Look for updates and FAQ's on the Mosquito Bridge website http://www.edcgov.us/MosquitoBridge/

Hosted by the

El Dorado County Transportation Division

This is Public Workshop No. 2 for the
Mosquito Road over South Fork American River
Bridge Replacement Project.

For more information, contact Janet Postlewait
janet.postlewait@edcgov.us or (530) 621-5900

COMMUNITY DEVELOPMENT AGENCY

TRANSPORTATION DIVISION

http://www.edcgov.us/DOT/

PLACERVILLE OFFICES:
MAIN OFFICE:
2850 Fairlane Court, Placerville, CA 95667
(530) 621-5900 / (530) 626-0387 Fax

MAINTENANCE:
2441 Headington Road, Placerville, CA 95667
(530) 642-4909 / (530) 642-0508 Fax

LAKE TAHOE OFFICES:
ENGINEERING:
924 B Emerald Bay Road, South Lake Tahoe, CA 96150
(530) 573-7900 / (530) 541-7049 Fax

MAINTENANCE:
1121 Shakori Drive, South Lake Tahoe, CA 96150
(530) 573-3180 / (530) 577-8402 Fax

DATE: **December 8, 2015**

TO: **Interested Agencies and Individuals**

FROM: **El Dorado County Community Development Agency, Transportation Division**

RE: **Invitation to Comment: Mosquito Bridge Replacement Project – Controlled River Access**

El Dorado County received federal funds to replace the existing Mosquito Bridge located 6 miles north of U.S. Highway 50, along Mosquito Road at the South Fork of the American River. The bridge does not meet current standards such as load requirements and bridge width. Currently, the bridge requires extensive annual maintenance resulting in long term road closures. Structurally, the bridge is rated near the bottom of all state bridges with a sufficiency rating (SR) of 12.5 out of 100. Bridges with a SR of < 50 are eligible for replacement under the FHWA Highway Bridge Program (HBP). The HBP will not fund non-vehicular use. Therefore, the existing bridge may or may not be removed, depending upon whether or not a source of funding can be found to finance the ongoing, high cost of maintenance necessary to keep it open, even for pedestrian use. If such funding cannot be found, the existing bridge will be removed as required by the HBP.

Mosquito Road is a rural narrow roadway that meanders through mountainous terrain and switchbacks into the steep South Fork American River canyon that narrows to a single lane near the bridge on both roadway approaches. These approaches to the bridge include five tight hairpin turns—one on the south canyon face (Placerville side), and four on the north canyon face (Mosquito/Swansboro side). The 9 foot wide bridge is restricted to only small vehicles; larger vehicles, such as those of first responders, and trucks are physically unable to access the bridge.

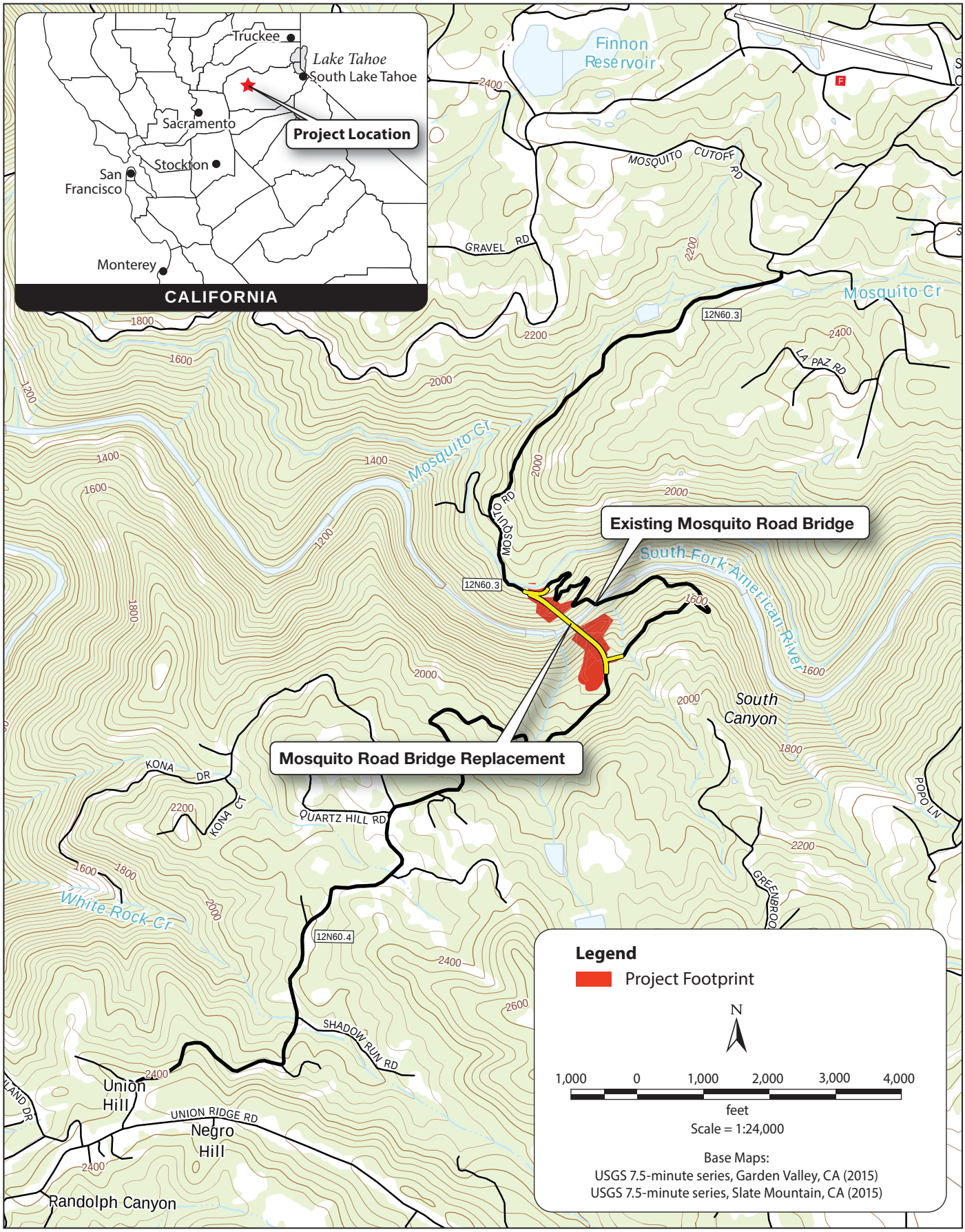
Due to reasons cited above, the County is considering a more direct crossing by raising the bridge profile approximately 400 feet, leaving the Mosquito Road approaches to the existing bridge no longer necessary to cross the canyon. The portion of Mosquito Road that leads to the existing bridge may or may not be abandoned, depending upon the interest in keeping it open on a limited basis or closed altogether. One option is to restrict this portion of the road to foot traffic, emergency and utility vehicles only. In this instance, however, minimal maintenance to the road would still be needed.

As a potential user/stakeholder to the old road on both sides of the river, the County is requesting your feedback as to preferences and your level of willingness to contribute to a share of the road maintenance.

Existing access to and from the river near the existing Mosquito Bridge is also the subject of a feasibility study the County will conduct as part of the proposed bridge replacement project pursuant to CA Streets & Highway Code 991.

Please submit your comments to me no later than December 31, 2015 using the contact information below. Thank you for your interest in the Mosquito Bridge Replacement Project. If you have any questions, please do not hesitate to contact me. Please be aware that you will have additional opportunity to comment on the project as a whole when the CEQA document is distributed to the public.

Janet Postlewait, Principal Planner
El Dorado County Community Development Agency
Transportation Division
2850 Fairlane Court
Placerville, CA 95667
(530) 621-5993 / FAX (530) 626-0387
janet.postlewait@edcgov.us



00496.14 015 (11-5-2015)

Figure 1
Location Map

AMERICAN WHITEWATER

Theresa Simsiman
California Stewardship Assistant
Dave Steindorf
California Stewardship Director
4 Baroni Drive
Chico, CA 95928

December 31, 2015

Janet Postlewait, Principal Planner
El Dorado County Community Development Agency
Transportation Division
2850 Fairlane Court
Placerville, CA 95667

RE: Invitation to Comment - Mosquito Bridge Replacement Project - Controlled River Access

Dear Ms. Postlewait,

In response to the invitation to comment on the Mosquito Bridge Replacement Project, American Whitewater is glad to note El Dorado County Community Development Agency, Transportation Division compliance to California Streets and Highway Code 991 and provides the following response to assist in the scoping process for river access at this location.

As outlined in our previous comments, the current Federal Energy Regulatory Commission (FERC) license order for Sacramento Municipal Utility District's (SMUD) Upper American Hydroelectric River Project (UARP) issued on July 23, 2014 will provide recreational flows on the South Fork American River below Slab Creek for the next 50 years. These flows are mandated by conditions issued by the California State Water Resource Control Board (SWRCB), the United States Forest Service (USFS) and supported by the Bureau of Land Management (BLM).[1] Mosquito Road Bridge currently provides crucial recreational access to the river and is 1 of 2 public river access points on the SFA below Slab Creek. It currently serves as the historic take-out for boaters who desire a shorter run and for boaters without the skill set to run the Class V rapid

[1] FERC Order Issuing New License for the Upper American River Hydroelectric Project #2101 is available on the Commission's website from the eLibrary feature at http://www.ferc.gov/docs-filing/elibrary.asp . Accession number 20140723-3046 - Condition 4. Recreation Streamflows Page 91 and Condition 50. Recreation Streamflows Page 208

downstream known as Motherlode Falls.[2] Thus, consistent with a BLM request as part of their right of way agreement for Mosquito Road Bridge, American Whitewater would like to see public river access included in all bridge alternatives provided for the Mosquito Bridge Replacement Project.

Preferred Scenario

Based on current conditions at Mosquito Road Bridge American Whitewater suggests the following preferred river access scenario:

- Provide year around access to the river, as is the current setup at Mosquito Road Bridge.
- Maintain the old Mosquito Road Bridge as a pedestrian walkway and as a bicycle route across the river.
- Provide year around vehicle access to the river on the South Placerville side where the public currently parks for river access.
- Explore the possibility for additional parking spaces adjacent to the river and at the first hairpin turn on the South Placerville side.
- Improve pedestrian access down to the river at the current Mosquito Road Bridge

Alternative Scenario

Recognizing resource constraints mentioned in the Transportation Division invitation to comment, American Whitewater suggests the following alternatives while maintaining year around river access:

- Seasonal vehicle access to Mosquito Road on the South Placerville side that coincides with SMUD's scheduled recreational releases for SFA Slab Creek, which would be available between March to May, or the month of October.
- Provide turnout and parking on both sides of the new bridge to allow for pedestrian river access via Mosquito Road.

Funding

In terms of funding for road maintenance at the Mosquito Road river access, American Whitewater notes that El Dorado County entered into a Cooperation Agreement with SMUD that provides an annual amount of $590,000. These annual payments are to be "utilized by the County for purposes of road maintenance, watershed management, and

[2] http://www.americanwhitewater.org/content/River/detail/id/147/

other miscellaneous activities related to the UARP and its impacts on facilities owned or services provided by, or any resource or other interest within the jurisdiction of, the County."[3] Since SFA below Slab Creek is well within the boundaries of the UARP it stands to reason that some of these funds could be utilized for maintaining river access at Mosquito Road.

Conclusion

American Whitewater commends El Dorado County Community Development Agency, Transportation Division for the work done thus far on the Mosquito Road Bridge Project. We look forward to the next steps in the public process with the release of the Environmental Impact Report and the selection of a preferred bridge alternative.

Sincerely,

Dave Steindorf
American Whitewater
California Stewardship Director
530-518-2729

Theresa L. Simsiman
American Whitewater
California Stewardship Assistant
916-835-1460

Att: American Whitewater Comments July 27, 2015
American Whitewater Comments November 18, 2014

[3] Filing of El Dorado – SMUD Cooperation Agreement with FERC for the Upper American River Hydroelectric Project #2101 available on the Commission's website from the eLibrary feature at http://www.ferc.gov/docs-filing/elibrary.asp Accession number 20051205-0233 - Page 8 Section 4.4 Use of Payment Funds

Theresa L. Simsiman <theresa@americanwhitewater.org>

Draft Feasibility Study - Public Access to the SFAR at Mosquito Bridge Road

Donna Keeler <donna.keeler@edcgov.us> Fri, Jul 29, 2016 at 8:19 AM
To: grebsnig@gmail.com, chris.tulley@gmail.com, darrickhilbert@yahoo.com, riverlass@sbcglobal.net, theresa@americanwhitewater.org, wasiel@att.net, skatermatt76@yahoo.com, IowaHill@smud.org, David.Hanson@smud.org, Mark.Swisher@smud.org, Darold Perry <Darold.Perry@smud.org>, dave@americanwhitewater.org, fyref07@yahoo.com
Cc: Bard Lower <bard.lower@edcgov.us>, Matthew Smeltzer <matt.smeltzer@edcgov.us>, Jon Balzer <jon.balzer@edcgov.us>

Dear Interested Parties,

On August 16, 2016 the El Dorado County Transportation Division is giving a presentation to the County Board of Supervisors on the *Draft Feasibility Study for Public Access to the South Fork of the American River at Mosquito Bridge Road*. The Draft Study is available for viewing at: http://www.edcgov.us/MosquitoBridge/.

The presentation will take place in the Planning Commission Hearing Room at 2850 Fairlane Court in Placerville, California. The meeting agenda and details will be posted on the County's website **one week prior** to the meeting: https://eldorado.legistar.com/Calendar.aspx

Please feel free to email me if you have any questions. Comments and questions can also be posted on the County's website.

Kind regards,

Donna

--
Donna Keeler
Senior Planner
County of El Dorado
Community Development Agency
Transportation Division
2850 Fairlane Court
Placerville, CA 95667
(530) 621-3829 / Fax (530) 626-0387
donna.keeler@edcgov.us

Theresa L. Simsiman <theresa@americanwhitewater.org>

Mosquito Road Bridge Replacement Study Update

Anne Novotny <anne.novotny@edcgov.us> Tue, Jan 29, 2013 at 11:52 AM
To: Theresa Simsiman <theresa@americanwhitewater.org>
Cc: Dave Steindorf <dave@americanwhitewater.org>

Hi Theresa,

Thank you for coming to the public workshop this past Saturday and for your information about your organization. We were thrilled at the standing room only turnout out on a foggy afternoon. The presentation and handouts, as well as the 1993 Study, will be posted on the County website later this week at: http://www.edcgov.us/Government/DOT/Mosquito_Bridge_Study.aspx

I will add your email address (and Dave's) to the email notification list for project updates.

Thank you for your interest in participating in the community process to update the Mosquito Road Bridge Replacement Study.

Regards,

Anne Novotny
(530) 621-5931
anne.novotny@edcgov.us
Senior Planner
County of El Dorado
Community Development Agency
Transportation Division

On Mon, Jan 28, 2013 at 10:58 AM, Theresa Simsiman <theresa@americanwhitewater.org> wrote:

> Hi Anne,
>
> Just wanted to take the opportunity to thank you for providing the informative workshop last Saturday. Given the size of the meeting I did not get a chance to introduce myself. I am a regional coordinator with American Whitewater and signatory to the Upper American River Project (UARP) Relicensing Settlement Agreement with SMUD.
>
> American Whitewater is a 501(c)(3) national non-profit organization that works to protect and restore America's whitewater resources and enhance the public's ability to enjoy them safely. Our membership base here in California has considered "Slab Creek" on the South Fork of the American River one of the premier Class V whitewater runs in the area and the pending relicense of SMUD's Upper American River Project will gaurantee scheduled whitewater releases during the spring season. As such river access at Mosquito Road Bridge remains an ongoing interest.
>
> American Whitewater plans to take an active part in this community process to update the replacement study - I would appreciate it if you could add the following email addresses to your public contact list regarding Mosquito Road Bridge.
>
> theresa@americanwhitewater.org - myself
> dave@americanwhitewater.org - Dave Steindorf - American Whitewater - California Stewardship Coordinator

> Again thanks for your time!
>
> Theresa Simsiman
> American Whitewater
> California Regional Coordinator
> 916-835-1460

Theresa Simsiman
California Stewardship Assistant
Dave Steindorf
California Stewardship Director
4 Baroni Drive
Chico, CA 95928

November 24, 2014

Janet Postlewait
Principal Planner
El Dorado County Community Development Agency
Transportation Division
2850 Fairlane Court
Placerville, CA 95667

Dear Ms. Postlewait,

American Whitewater appreciates having the opportunity to provide comment on the El Dorado County Mosquito Road Bridge Replacement Project, which proposes to replace Mosquito Bridge at the South Fork of the American River. Keeping with Objective 9.1.4 of El Dorado County's General plan to "conserve and promote the waterways of El Dorado County, particularly the South Fork American River, as recreational and economic assets" - construction of a new bridge at this location will provide opportunity to improve public river access for public recreation.

American Whitewater is a national non-profit 501(c)(3) river conservation organization founded in 1954 with a mission to conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely. With over 5,800 members and 100 locally based affiliate clubs, American Whitewater represents the conservation interests of thousands of whitewater enthusiasts across the nation. A significant percentage of our members reside in and travel to California for its whitewater resources, and enjoy recreating on a section of the South Fork American River known as Slab Creek. As a result, American Whitewater has a direct interest in the outcome of the proposal to construct a new bridge at Mosquito Road, with particular interest in river access.

South Fork American River Slab Creek Use & Available Recreational Flows

The South Fork American River between Slab Creek Dam and White Rock Powerhouse offers a unique 7.5 mile continuous Class IV to V whitewater experience for advanced boaters through a scenic river canyon. Mosquito Road Bridge serves as a historic take-out point for boaters who

want a shorter run and as an alternative to portaging the hardest Class V rapid downstream.[1] Currently, boaters park in one of a limited number of spaces on the south side of Mosquito Bridge or up the road on the south during recreational flow days.

To date, boaters have had infrequent opportunity to run Slab Creek, occurring only when Sacramento Municipal Utility District (SMUD) spilled water over Slab Creek Dam. The last recreational flow on this reach took place during the last wet water year in 2011. However, beginning in 2015, there will be many more opportunities for boaters to enjoy Slab Creek. The new license order issued by the Federal Energy Regulatory Commission (FERC) on July 23, 2014 for SMUD's Upper American Hydroelectric River Project provides for regular opportunities to boat Slab Creek for the next 50 years.

Under the FERC License, California State Water Resources Control Board (SWRCB) Water Quality Certificate Condition 4 and U.S. Forest Service (USFS) Condition 50 filed pursuant to section 4(e) of the Federal Power Act specifies required recreational streamflows. For the first 15 years of the license, SMUD will provide for seven scheduled whitewater recreational flow releases below Slab Creek Dam in below normal, above normal & wet water year types between March 1st and May 31st. After 15 years, recreational releases could be made in all water year types during the spring, ranging from 6-12 days between March 1 and May 31, and up to six days in October. In the long term, the total number of possible scheduled recreational flow days will be eighteen days, depending on water year type.[2]

Comments Mosquito Road Bridge Project

A. Compliance with California Streets and Highway Code 991

Section 991 of the California Streets and Highway Code states:

> "*Before any bridge on a county highway is constructed over any navigable river, the board of supervisors, after a study and public hearing on the question, shall determine and shall prepare a report on the feasibility of providing public access to the river for recreational purposes and a determination as to whether such public access shall be provided."*

Section 84.5 sets a similar parameter for public river access for any bridge on a state highway:

> "*During the design hearing process relating to state highway projects that include the construction by the department of a new bridge across a navigable river, there shall be included full consideration of, and a report on, the feasibility*

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1 http://www.americanwhitewater.org/content/River/detail/id/147/

2 FERC Order Issuing New License for the Upper American River Hydroelectric Project is available on the Commission's website from the eLibrary feature at http://www.ferc.gov/docs-filing/elibrary.asp. Accession number 20140723-3046 - Condition 4 Page 91 & Condition 50 Page 208.

of providing a means of public access to the navigable river for public recreational purposes."

Recently, American Whitewater worked collaboratively with Caltrans Representatives from District 3 to ensure recreation and river access were incorporated into the Highway 49 South Fork American River Bridge Project and outlined the following components to Caltrans to help them comply with this code. We recommend that El Dorado County consider the following steps as well.

Defining and implementing a scoping process

1. The specific issues associated with a River Access Feasibility study should be determined as part of a formal public scoping process regarding any bridge construction or bridge repair projects.
2. Notify appropriate interested stakeholders, including local watershed groups, recreational fishing, boating, and hunting groups, and state and national river conservation organizations such as American Rivers and American Whitewater, as parties to initial Caltrans project scoping.
3. Identify and describe the waterway and the recreational interest in the waterway being affected. This information can be supplemented from the American Whitewater National River Database, or from other online guidebooks such as Dreamflows (these resources are suggestions, and by no means an exhaustive list of the resources, that Caltrans should consider).
4. Through the pubic scoping process it should be determined if there is a need and potential to improve river access.

Determining potential access points

1. Determine all existing access points utilized by the public to access the affected river segment, whether established or informal.
2. If access in the bridge right of way is deemed infeasible or of lesser quality than a nearby improvement or development, explore the potential to establish a new public access site outside of the direct project right of way. Determine the land ownership of these potential access sites and engage landowners or agencies to determine if they are willing to explore improving river access.

Establishing and describing right of ways

1. When acquiring right of ways necessary for construction, Caltrans should, whenever possible, include public access as part of the right of way agreements.
2. The Feasibility Study should evaluate existing easements and determine to what extent they allow public access.
3. Clear and obvious signage should be in place to inform the public of the right of way boundary and where the public is legally allowed to access the river along the bridge.

Identifying Potential Funding Sources

1. The study should identify potential funding sources. Some sources for consideration include partnership with nonprofits, California Department of Boating and Waterways, California Department of Parks and Recreation (Recreational Trails Program), and the California Natural Resources Agency (California River Parkways and EEMP).

Making the final determination

1. Establish a formal and transparent decision-making framework to determine the feasibility of providing public access.
2. If deemed feasible, that determination should mandate the planning and implementation necessary to provide the identified public access.

While recreation and river access is considered within the evaluation criteria for the Mosquito Road Bridge, we encourage the County to prepare a report regarding river access as part of the project to comply with California Streets and Highway Code. Significant cost savings associated with the development of public waterway access could be achieved if it is incorporated into the initial construction project plans. An example of a feasibility report that followed the above basic components can be found in Appendix D of Caltrans' Initial Study for the South Fork American River Bridge Project, available at:

http://www.dot.ca.gov/dist3/departments/envinternet/southforkamericanriver/southforkamericanriver.htm.

B. For High Level Bridge Alternatives Consider Using the Old Road and Historic Bridge For Recreation and River Access

Although the old road and bridge will be handled in a separate project by El Dorado County Parks, American Whitewater believes the existing road and historic bridge at Mosquito Road can provide a viable river access option that can be incorporated into any of the high level bridge alternatives.

C. Provide River Passage & River Access During Construction

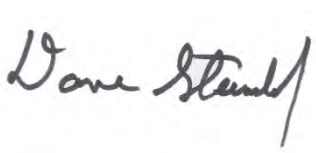
American Whitewater recommends that the County fully vet options to ensure river navigability and access on the South Fork American River during construction.

Conclusion

American Whitewater applauds the transparent and public process that El Dorado County has taken to present the progress of the Mosquito Road Bridge Project. We recognize the importance of the new bridge in providing much-needed improvements for community travel, emergency vehicle travel and enhancing public safety by building the bridge to current safety standards.

Concurrently, replacing this bridge also provides the opportunity to improve public access to the South Fork American River. We hope to work collaboratively with El Dorado County to ensure compliance with California Streets and Highway Code 991, brainstorm viable river access options and ensure navigability and access to the river during construction. To that end, please feel free to contact us with any questions or follow-up.

Sincerely,



Dave Steindorf
California Stewardship Director
American Whitewater
530-518-2729

Theresa L. Simsiman
California Stewardship Assistant
American Whitewater
916-835-1460

cc: Darlene Wulff
Caltrans District 3
Local Assistance Engineer for Mosquito Road Bridge

Theresa L. Simsiman <theresa@americanwhitewater.org>

Fwd: Mosquito Road Bridge comments

Bowes, Stephen <stephen_bowes@nps.gov> Wed, Dec 17, 2014 at 1:35 PM
To: Dave Steindorf <dave@americanwhitewater.org>, Theresa Simsiman <theresa@americanwhitewater.org>

Hey guys,

Here are my Mosquito Road Bridge comments.

Also, we should have another Rec Group call for Don Pedro. I really want to make sure Steve and Marty get one-on-ones when Lee comes back in January. What dates after Jan 1st work for you?

Stephen M. Bowes
Hydropower Assistance Program
National Park Service
333 Bush Street, Suite 500
San Francisco, CA 94104
Phone: 415-623-2321
Fax: 415-623-2387

---------- Forwarded message ----------
From: **Bowes, Stephen** <stephen_bowes@nps.gov>
Date: Wed, Dec 17, 2014 at 1:32 PM
Subject: Mosquito Road Bridge comments
To: mosquitobridge@edcgov.us

I am submitting these comments on behalf of the National Park Service.

Stephen M. Bowes
Hydropower Assistance Program
National Park Service
333 Bush Street, Suite 500
San Francisco, CA 94104
Phone: 415-623-2321
Fax: 415-623-2387

Mosquito Road Bridge Comments - NPS.docx
126K

United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
333 Bush Street
San Francisco, CA 94104

December 15, 2014

Re: Mosquito Road Bridge

El Dorado County
Transportation Division
Attn: Bridge Project Coordinator
2850 Fairlane Court
Placerville, CA 95667

Dear Ms. Postlewait,

As a participant in the Upper American River Project (FERC #2299) the National Park Service a grateful for the opportunity to comment on the El Dorado County Mosquito Road Bridge Replacement Project. We feel that this would be a good opportunity to improve public river access for public recreation.

The South Fork American River between Slab Creek Dam and White Rock Powerhouse is a popular 7.5 mile Class IV-V whitewater run. The less advanced boaters who want to avoid the Class V rapids typically take out at the Mosquito Road Bridge. One of the biggest problems currently is that there are only a few places to park on the south end of the bridge and up the road a little way

In the past there have been only limited recreational flow days when the Sacramento Municipal Utility District (SMUD) spilled water over Slab Creek Dam. This is about to change in 2015 since the new license order issued by the Federal Energy Regulatory Commission (FERC) on July 23, 2014 for SMUD's Upper American Hydroelectric River Project (UARP) requires regular recreational boating flows over the next 50 years. This means that for the first time in fifteen years SMUD will release water for seven recreational boating flows below Slab Creek Dam in below normal, above normal & wet water year types between March 1st and May 31st. Beginning in 2015 recreational boating flows can be made in all water year types during the spring, ranging from 6-12 days between March 1 and May 31, and up to 6 days in October.

The National Park Service appreciates this opportunity to comment and would like to point out that our comments are being made keeping in mind California Streets and Highway Code 991. In our role on the Upper American River Project (FERC #2299), would like to make the following recommendations for the scoping process and project implementation:

- In the pubic scoping process the need and extent of improving the existing boating access should be determined.

- The study should identify and describe current and future recreation in this reach.

- Identify and engage all appropriate stakeholders. This includes American Rivers, American Whitewater, local outfitters, local watershed groups, fishing groups, hunting groups, and state and national river conservation/recreation organizations.

- The Feasibility Study should consider the current easements and how they allow for public access. Appropriate signage should be included in this project to keep the public aware of the right of way boundary and where they can legally park and access the river.

- Existing access points that are currently used by the public to access the river should be determine, both informal and established. If access in the bridge right of way is deemed infeasible or of lesser quality than a nearby improvement or development, we would encourage the county to consider creating an alternative adequate access site nearby.

- Identify potential funding sources so that the County doesn't have to assume the entire burden of improving this recreational resource. There are provisions under the UARP Settlement Agreement that could be applied to capital improvements associated with providing recreational access at the bridge site. Additional sources of funding are: California Department of Parks and Recreation (Recreational Trails Program), California Natural Resources Agency (California River Parkways and EEMP), and the California Department of Boating and Waterways.

The National Park Service would like to thank El Dorado County for giving us this opportunity to comment on the Mosquito Road Bridge Project. The new bridge is certainly important for residents and visitors and we hope that you will take a serious look at improving this white water take-out site for the enjoyment and safety of all boaters who enjoy the rivers of El Dorado County.

If you have any further questions, please contact me at (415) 623-2321.

Sincerely,

_____

Hydropower Assistance Program
National Park Service
333 Bush Street
San Francisco, CA 94104
415.623.2321

Theresa L. Simsiman <theresa@americanwhitewater.org>

Mosquito Bridge: Climbing @ Bridge in 2 Guide Books

Theresa L. Simsiman <theresa@americanwhitewater.org> Mon, Nov 28, 2016 at 7:36 AM
To: Theresa Simsiman <theresa@americanwhitewater.org>

---------- Forwarded message ----------
From: **Ronald Vardanega** <drvard@pacbell.net>
Date: Mon, Aug 15, 2016 at 10:15 PM
Subject: Re: Mosquito Bridge
To: Theresa Simsiman <theresa@americanwhitewater.org>
Cc: John Simpkin <johnmsimpkin3@gmail.com>, Charlie Downs <cdowns@archnexus.com>, Katie Goodwin <katie@accessfund.org>

Here is a statement from me:

8/15/2016

To the El Dorado County Board of Supervisors,

Regarding the Swinging Bridge on Mosquito Road. I congratulate the progress made in the planning for a new bridge thus far.

I would like to respectfully suggest that the Historic Swinging
Bridge be left in place and parking be made available at the closer points.

I started developing rock climbing routes on the crag that forms the north abutment of the Swinging Bridge in 1977 with a small group of locals. The year I graduated from El Dorado High School. **These climbs were first described in a guide book published by Bob Branscomb in the early eighties and then in the Cosumnes River Guide (2003) by Will Cottrell.** Will coined the name Mosquito Coast for the area we just called Swinging bridge.

The climbs are steep cracks on high grade granite and which make a great training area for climbers preparing for the steep cracks of Yosemite. Several difficult climbs are found here so climbers come to test their strength and technique. To be fair Mosquito Coast/Swinging Bridge sees few climbers, but periodically locals make regular visits.

From a climbers perspective as long as there is parking, we can get to the climbing by walking down the road to the bridge.

As a native Californian I would also plead that Swinging Bridge is a piece of history that deserves consideration for preservation. I have heard a rumor that it might be the 2nd oldest bridge in California.

As a resident of the town of Placeville I would like to point out that access for emergency vehicles to one more bridge is an asset in this age of catastrophic wild fires not a liability.

This is a special place for me and many of my friends, as a climbing area and a great place to take a dip in the cool waters on a hot day. Because currently there is too much traffic on this old narrow road, I think moving traffic onto a new bridge is overdue and could help make the Swinging Bridge a great recreational destination as long as access and parking were preserved.

Sincerely,

Ron Vardanega

APPENDIX B
RELEVANT DOCUMENTATION
EL DORADO COUNTY
MOSQUITO ROAD BRIDGE REPLACEMENT PROJECT

Whitewater Boating Update

- 2016 provisional use levels

- Slab Creek reach downstream take-out

SMUD

2016 Slab Creek Summary

Release Date	Groups	Boats	Boaters	Kayak %	Raft %
4/23/2016	9	38	40	97%	3%
4/24/2016	7	30	39	73%	27%
4/30/2016	9	21	31	81%	19%
5/1/2016	9	29	53	72%	28%
5/14/2016	8	30	34	90%	10%
5/15/2016	3	8	13	75%	25%
Season Total	45	156	210	82%	17%
Daily Average	7.5	26	35	n/a	n/a

SMUD

2016 Slab Creek Summary (cont.)

- Commercial Boaters
  - 16% of Groups, 43% of Boaters, and 25% of Boats
  - Average 6 Boats/Group, 15 Boaters/Group, and 2.5 Boaters/Boat
- Wait time at Put-in
  - 89% of groups experienced no wait time
  - Wait times did not exceed 5 minutes
- Group Use Patterns
  - Slab Dam PI 100%
  - Mosquito Bridge TO 49%
  - Rock Creek Powerhouse TO 51%
- Feedback Discussion

SMUD

EL DORADO COUNTY

DRAFT FEASIBILITY STUDY

PUBLIC ACCESS TO THE SOUTH FORK OF THE AMERICAN RIVER AT MOSQUITO ROAD BRIDGE

Prepared by the El Dorado County Community Development Administration, Transportation Division

July, 2016

Contents

I. Introduction

This study examines the feasibility of providing public access to the South Fork of the American River (SFAR) in El Dorado County, California, at the existing Mosquito Road Bridge in conformance with California Streets and Highways Code 991 and 84.5, due to the proposed construction of a new bridge across a navigable river.

California Streets and Highway Code 991 states that "*Before any bridge on a county highway is constructed over any navigable river, the Board of Supervisors, after a study and public hearing on the question, shall determine and shall prepare a report on the feasibility of providing public access to the river for recreational purposes and a determination as to whether such public access shall be provided.*"

California Streets and Highway Code 84.5 states: "*During the design hearing process relating to state highway projects that include the construction by the department of a new bridge across a navigable river, there shall be included full consideration of, and a report on, the feasibility of providing a means of public access to the navigable river for public recreational purposes".*

II. Project Purpose

The El Dorado County Community Development Agency, Transportation Division (Transportation), received federal funds to replace the existing Mosquito Bridge located in a steep canyon of the SFAR, 6 miles north of U.S. Highway 50, and 2.3 miles south of the communities of Mosquito and Swansboro along Mosquito Road (See Exhibits A and B). The purpose of the Mosquito Road Bridge Project (Project) is to replace the existing Mosquito Road Bridge over the SFAR with a functional bridge that meets current design and safety standards.

The following technical studies for this project are underway and projected to be completed by the summer of 2016:

- Geotechnical Report
- Foundation Report
- Natural Environment Study
- Archaeological Survey Report
- Historical Resources Evaluation Report
- Cultural Area of Potential Effects
- Community Impact Assessment
- Visual Impact Assessment
- Noise Study Report
- Air Quality Conformity Analysis and Report
- Wetland Delineation Report

III. Project Background and Need

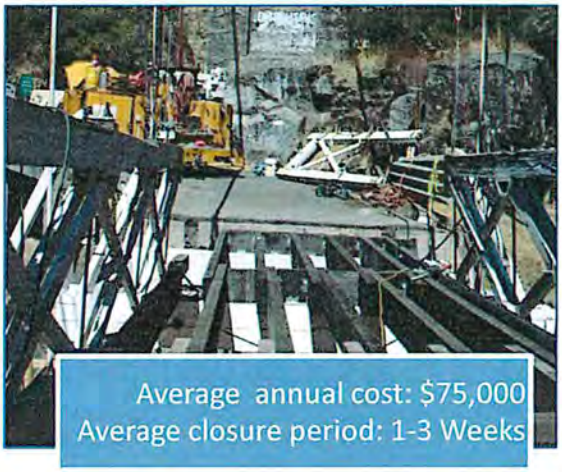
The original Mosquito Road Bridge, known as the "swinging bridge,'" was built in 1876 linking the communities of Mosquito and Swansboro to Placerville on Mosquito Road; originally a wagon trail. In 1939, the bridge was largely reconstructed while maintaining the 1876 foundations.

Mosquito Road is a narrow roadway that meanders through mountainous terrain and switchbacks in the steep SFAR Canyon. At the bottom of the canyon Mosquito Bridge spans the SFAR in a northwest-southeast direction, serving an average daily traffic (ADT) volume in 2015 of approximately 1,256 vehicles per day. The only other access roadway is Rock Creek Road to the north, with an ADT of approximately 220 vehicles. Due to the conditions of the existing bridge and bridge approaches, emergency and larger commercial vehicles and trucks are unable to cross the bridge. While Mosquito Road provides direct access to Placerville, Rock Creek Road provides a longer route via State Routes 193 and 49 (Exhibit E-2). Rock Creek Road can better accommodate varied types of vehicles, including first responders, but under high demands, such as during the 2014 King Fire, the windy narrow roadway with sharp turns is overtasked and traffic flow breaks down.

Caltrans and the Federal Highway Association (FHWA) Highway Bridge Program (HBP) have rated the Mosquito Bridge structurally deficient and functionally obsolete with a sufficiency rating (SR) of 12.5 out of a possible 100. Those bridges appearing on the list with a sufficiency rating of less than 50 are eligible for replacement or rehabilitation due to their poor condition and the fact that such structures do not meet current design and safety standards. Roadway approaches to Mosquito Road Bridge are also sub-standard due to a narrow, steep roadway, five tight hairpin turns—one on the south canyon face (Placerville side), and four on the north canyon face (Mosquito/Swansboro side).

In current times, the bridge requires extensive maintenance resulting in a road/bridge closure of one to three weeks per year at an average annual cost of approximately $75,000. The existing span across the river is a one-lane, 9-foot-wide, 160-foot long limited-capacity timber suspension bridge. The deck system and railing all consist of timber (See Photos 1-4 in Exhibit G). Those elements are supported on timber stringers that are attached at each end to vertical steel rods hanging from the main suspension cables. The existing bridge is posted to limit vehicle loads to 5 tons, along with vehicle size and dimensions. Trailers and large trucks are not permitted. Sharp, nearly 90-degree-angled turns onto the bridge and speeds across the bridge are generally less than 10 miles per hour (mph) due to the bridge's narrow width.

Annual Mosquito Bridge Repairs

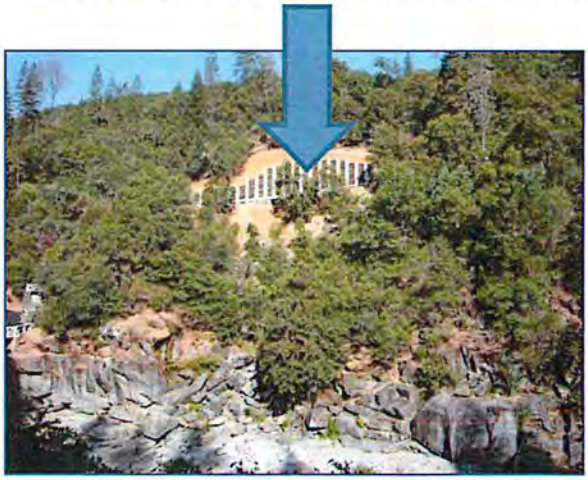


Average annual cost: $75,000
Average closure period: 1-3 Weeks

IV. Physical Environment

The general topography at the existing Mosquito Bridge site is characterized by moderate slopes changing to very steep slopes in the densely vegetated, steep canyon area. (See Photos 1-4 in Exhibit G and the topographical map in Exhibit E-2). The river is heavily bounded by bedrock in the banks and channels and large boulders and sharp rocks on the slopes.

Due to the physical characteristics of the site, Mosquito Bridge is in an area with a history of landslides and sudden slope failures. The Draft Field Exploration Map in Exhibit I identifies the "slope instability" zones in the project area. Past landslides have closed Mosquito Road for protracted periods of time and have required the construction of repairs such as solder pile walls and rock netting, to reopen the roadway. Most recently, a severe slide in 2006 led the County to declare an emergency and close Mosquito Road. With assistance from FEMA, the road was reopened in 2007 after completing a $3,000,000 repair project. (See photos below).



Soldier Pile Wall Constructed in 2007

V. Mosquito Bridge Replacement Project Description

Various alternatives were examined for the bridge replacement project to determine the most direct route over the river with the least environmental impact. The preferred alternative found to satisfy all the goals and objectives of the project is a new bridge with a vertical profile approximately 400 feet over the river (Exhibit C). This preferred alternative is on the most direct alignment across the river with very little skew, resulting in a main bridge length ranging from approximately 1,150 to 1,250 feet. It is anticipated that the new bridge over the SFAR would be a three-span, cast-in-place pre-stressed concrete box girder-type bridge with a maximum span of approximately 550 feet.

To comply with American Association of State Highway and Transportation Officials (AASHTO) and El Dorado County standards, the lane widths for the new roadway segments and on the new bridge would be 12 feet. Due to the steep mountainous terrain and to maintain consistency with the existing roadway leading to and from the site, the roadway shoulder would generally include a 4-foot paved area plus a 1-foot graded area. A 5-foot paved shoulder would be provided on the bridge next to a concrete barrier and railing. With these features the new bridge would be approximately 37.5 feet wide (34 feet clear width).

The Project involves an approximately 2,000-foot realignment of the roadway. The departure from the existing roadway on the south involves approximately 575 feet of roadway approach to the nearly 1,200-foot-long bridge, then a 300-foot northerly roadway approach where the alignment converges back to the existing roadway. The proposed Project would eliminate substandard roadway approaches that currently restrict vehicle access to the bridge—the one switch-back turn on the Placerville side of the canyon and the four severe switch-back turns on the Mosquito/Swansboro side of the canyon. A detailed discussion of the proposed Project and the description of Alternatives will be provided in the Environmental document upon issuance.

Existing Bridge: The existing Mosquito Bridge is proposed to be removed after traffic is shifted onto the new bridge. The Highway Bridge Program does not fund a transfer use, and once the new bridge is in operation, the old bridge comes off the County bridge list. Any future effort by the County or other agency to keep the old bridge for pedestrian use would be handled as a separate project apart from the HPB funding.

Upon removing the existing bridge, the suspension span components would be disassembled without impacting the river. The concrete supporting towers, short steel frames, and other bridge substructure would remain in place as a reminder of the old bridge location. Barricades would be installed at the end of the old roadway on both sides of the river. Mosquito Road will remain; however the roadway segments on each side of the river are proposed to be controlled by gates located below existing driveway encroachments. The gates will be closed to public vehicle access once the new bridge is open for use.

VI. Existing Public Access to Navigable River in Project Area

Mosquito Road Bridge is located within an approximately 10 river mile Class IV-V navigable section of the SFAR known as the "Slab Creek Run" that extends from Slab Creek Reservoir to Chili Bar Reservoir. In this section, the river follows a deep forested canyon that is usually not "boatable" due to flow controls; managed by the Sacramento Municipal Water Utility District (SMUD) at the Slab Creek Reservoir approximately 3.6 miles above the Project site. Flows are released through the Slab Creek Powerhouse into the SFAR to meet the minimum flow requirements prescribed under the Federal Energy Regulatory Commission (FERC) license: http://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/uppramrvr/uarp_ferc_license.pdf[1]

Under a new FERC licensing agreement issued July 23, 2014, SMUD is required to provide recreational flow releases, ranging from 850 cubic feet per second (cfs) to 1,500 cfs for six days in no less than three events in the period beginning March 1 and ending May31.[2] Such releases accommodate expert Class IV-V whitewater boating on the Slab Creek Run. Due to drought conditions and environmental protections measures, the number of releases each year may vary depending upon snowpack conditions, water temperature, results of monitoring programs and other factors impacting river use, habitat and fish and wildlife protection.

SMUD currently provides informal river access at the "put-in" location of Slab Creek Run 3.2 river miles above Mosquito Road Bridge. Under the new licensing agreement, SMUD proposes to develop a recreation plan for upgrading and expanding existing recreation facilities, including upgrading the existing access facility at Slab Creek Reservoir and reviewing options to enhance or build boating "take-out" facilities below Mosquito Bridge.[3] According to SMUD sources, the White House Powerhouse is no longer a viable boating take-out location due to vehicle access issues. An alternative site at the Rock Creek Powerhouse on property owned by the Bureau of Land Management is under review (Exhibit F).

The American Whitewater Association (AW) is a non-profit organization that serves as an advocacy group for whitewater recreation. On its website, AW states "*Mosquito Bridge is an alternate take out allows boating the steepest few miles (of Slab Creek Run) while avoiding Motherlode Falls and the easier water below. Unfortunately there are only 3 to 5 spaces at the bridge…..*" http://www.americanwhitewater.org/content/River/detail/id/147/.

While Slab Creek Run is known in the recreational boating community as an expert Class IV-V whitewater run (during recreational releases), Mosquito Bridge is not an official boating take-out site or authorized by El Dorado County for public river access. As such, there are no public parking facilities or formal trails that lead to the river's edge. In general the site is not conducive

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[1] U.S. Federal Energy Regulatory Commission, 148 FERC, 62,070, *Order Issuing New License, Sacramento Municipal Utility District, Project no. 2101-084, Page 86, July 23, 2014.*

[2] Ibid, page 89.

[3] Ibid, pages 59-60.

to supporting public access facilities due to steep vertically aligned slopes, rocky and dangerous terrain and geographical constraints. Additionally, as mentioned in the AW website, parking is extremely limited due to Mosquito Road narrowing to one lane at the bridge approaches.

During the re-licensing process, SMUD examined the Mosquito Road Bridge site for potential boating access and determined it to be an infeasible boating take-out location. SMUD concluded there are too many site constraints prohibiting the development of suitable vehicle parking or boater access from the river without extensive construction, excavation, environmental impact and cost. In an email dated December 15, 2015 to El Dorado County, SMUD stated it does not intend to develop the Mosquito Road Bridge site for recreational boating or other purposes, nor does the agency have plans to assume operations and maintenance responsibility for either the bridge or the adjoining road approaches to the existing bridge.

On December 8, 2015 Transportation reached out to stakeholders soliciting comments on the issue of river access within the vicinity of Mosquito Bridge Replacement Project. The invitation provided a project description and stated a river access feasibility study would be prepared as part of the proposed bridge replacement pursuant to CA Streets & Highway Code 991. Upon evaluating the written comments received, the Transportation prepared responses in conjunction with preparation of this Feasibility Study, provided in Attachment A.

VII. Alternatives Considered

The County has considered the following alternatives on the feasibility of providing access to the SFAR from the existing Mosquito Bridge site for recreational purposes in accordance with California Streets and Highway Code 991 and 84.5:

A. Public river access at the existing Mosquito Road Bridge site on the Placerville (south) side of the SFAR.
B. Access at the existing Mosquito Road Bridge site on the Mosquito (north) side of the SFAR.

Issues and potential impacts under Alternatives A and B include but are not limited to:

a. El Dorado County owns a prescriptive easement for Mosquito Road, but does not own the property, or have rights to the areas outside of the paved roadway edges.
b. El Dorado County does not own the land adjacent to the river, or have rights to the river, and as such it does not have the authority to grant access.
c. There is no adequate location to provide parking at either approach to the bridge on Mosquito Road.
d. El Dorado County would need to acquire private land or expand the existing prescriptive easement on Mosquito Road to provide parking at or near the bridge.

The closest feasible location is on the south side of the SFAR, approximately ½ mile from the bridge.

e. Due to the steep, rocky slopes between Mosquito Road and the SFAR, constructing pedestrian access would be extremely difficult, dangerous and costly to build.
f. Potential environmental impacts, protection of riparian habitats and best management practices will need to be considered and comply with local, state and federal regulations where applicable.
g. Construction of a river access facility would require extensive maintenance and on-going costly repairs.
h. River access facilities would likely be within the Dam Failure Inundation Zone of the Chili Bar and Slab Creek Dams.
i. Construction of a path, stairway or any other associated facility would require review and permits from various agencies, including the Bureau of Land Management, U.S. Army Corps of Engineers, U.S Fish and Wildlife, California Department of Fish and Wildlife, El Dorado County and others.

VIII. Preliminary Cost Estimates and Potential Funding Sources

The bridge replacement is funded through the Highway Bridge Program (HBP) and does not include funding for public access or the preservation and maintenance of the existing bridge. Therefore, detailed costs estimates were not prepared for the installation of a public facility at the existing Mosquito Road Bridge site. Based on the cost of the soldier pile wall constructed in 2007 on Mosquito Road, it can be assumed that construction of river access and parking/turn around facilities would entail a multimillion dollar project. The lack of buildable area would require cutting into the existing (unstable) slopes to develop facilities.

The project scope for providing access would vary based on negotiations with property owners and permitting agencies to determine the project location, access route, mitigation measures and accompanying facilities such as parking. Other considerations include the history of slides, risk factors and liability. Due to funding constraints under the Mosquito Bridge Project, future public access and maintenance efforts would be considered as separate projects and require separate funding sources. With limited funds for parks and recreation projects, the County would look to outside resources to fund a project, such as the California Department of Boating and Waterways Program.

IX. Coordination with Other Agencies

As previously mentioned, coordination with various agencies would be required to obtain the necessary permits to construct formal public access facilities. Such agencies may include, but not be limited to, the following:

• California Regional Water Quality Control Board

- United States Army Corp of Engineers
- California Department of Fish and Wildlife
- Bureau of Land Management
- US Fish and Wildlife
- Forest Service

X. Conclusion and Findings

The combination of land acquisition, topographical limitations, dangerous conditions, environmental impacts, funding constraints and constructions costs make the existing bridge site impractical for new public river access facilities. SMUD reached a similar conclusion when it examined the site as a potential take-out location to meet its license agreement. Any further discussions on the matter should include strong consideration of the physical limitations and geologic sensitivity of the site, along with the variations in high water mark levels and the lack of room for parking and safe turn-around areas.

Once traffic is shifted to the new bridge, the bridge approaches can be maintained by the County for limited restricted use for emergency vehicle access, utilities and maintenance. The estimated cost for maintaining both bridge approaches is approximately $8,000 per year. Pedestrian access will not be restricted from above the gates. However, the County cannot authorize parking on private property.

As a result of the study and conclusions, the El Dorado County Transportation Division makes the following findings:

1. Due to physical constraints, potential environmental impacts, cost, safety, and other reasons cited in the Feasibility Study, it is not feasible or practical to construct additional public river access facilities as part of the Mosquito Bridge Replacement Project at the existing Mosquito Bridge.
2. River boating access facilities on the Slab Creek Run are already being developed by SMUD. Conditions under the new UARP licensing agreement require SMUD to develop a whitewater boating recreation plan for the SFAR below Slab Creek Dam which includes the provision of public recreational boating access and parking at Slab Creek Reservoir and at or near the White Rock Powerhouse. http://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/uppramrvr/uarp_ferc_license.pdf
3. For safety reasons, once traffic is shifted to the new bridge, vehicular access on the bridge approaches (below the gates) should be restricted to maintenance, fire protection and other service and emergency vehicles.
4. Once the new bridge is constructed, it will be feasible for pedestrians and boaters to continue using Mosquito Road.

EXHIBIT A

VICINITY MAP
EL DORADO COUNTY

PROJECT LOCATION

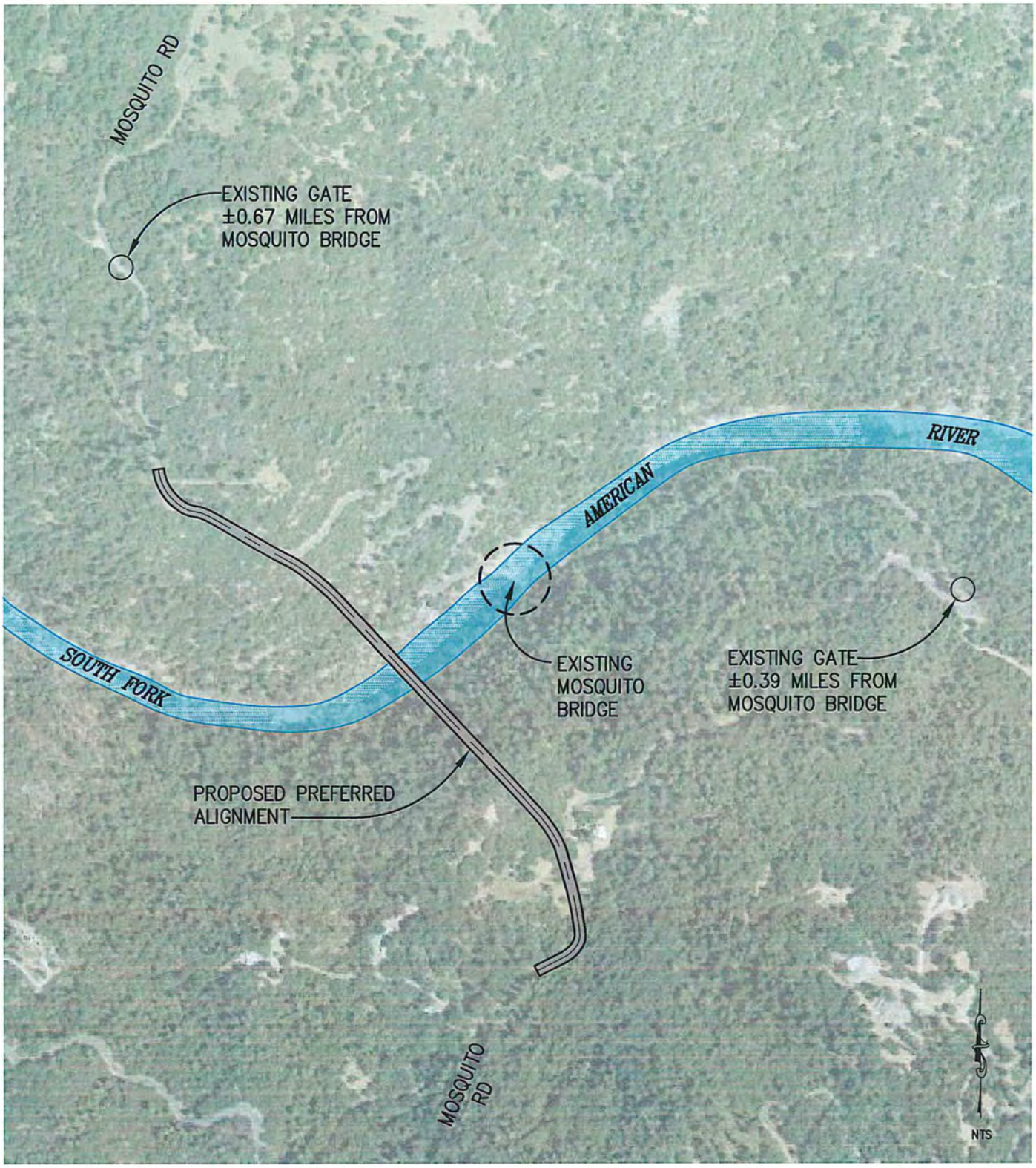
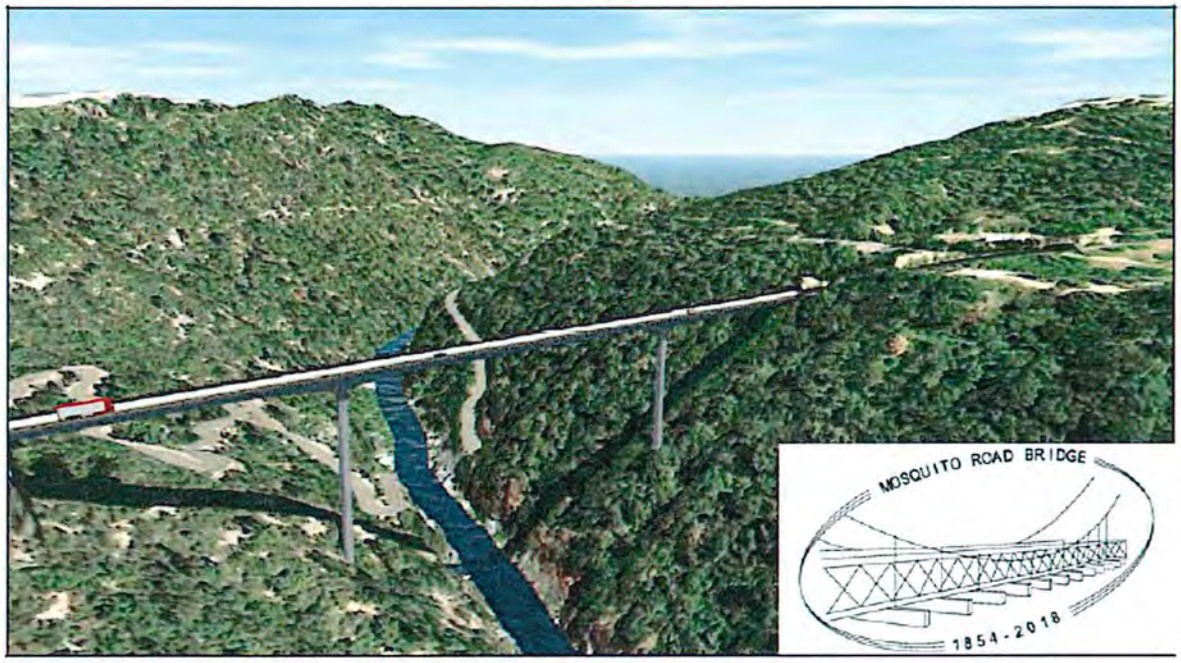
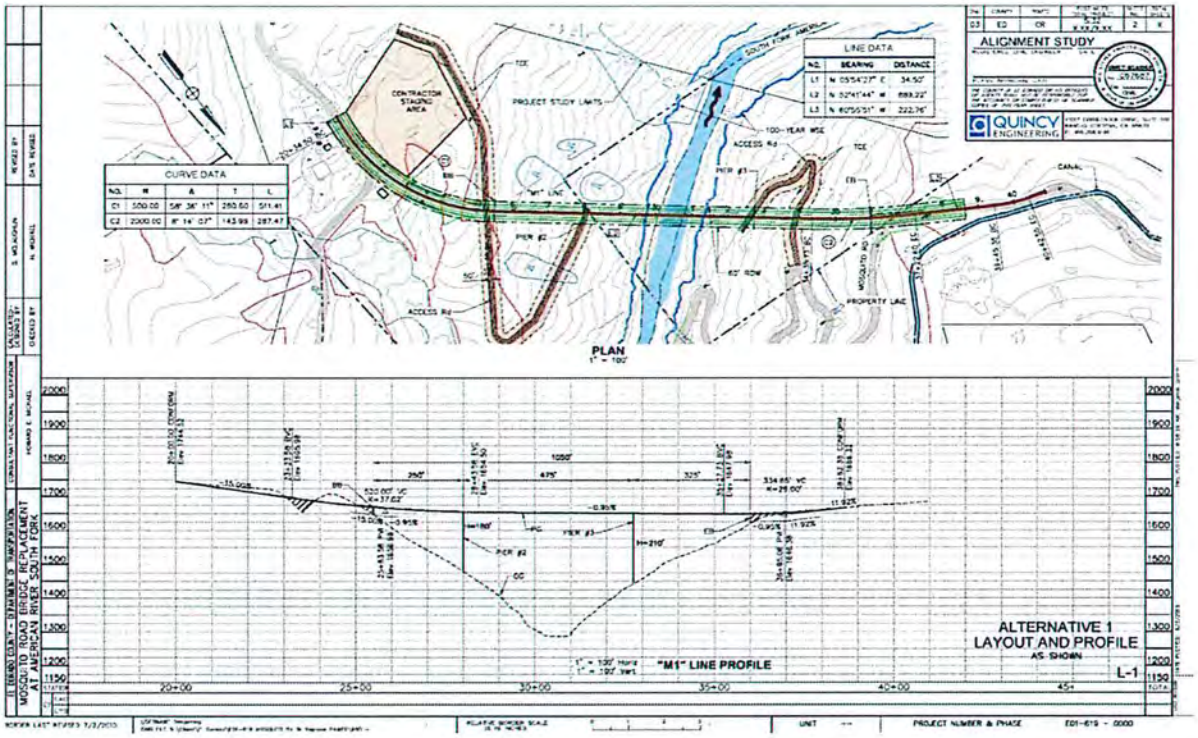


EXHIBIT B

Exhibit C: Mosquito Bridge Replacement – Preferred Alignment





MOSQUITO BRIDGE RIVER ACCESS CONDITIONS AND SURROUNDING OWNERSHIP

EXHIBIT D

EXHIBIT E-1

SLAB CREEK RUN - EXISTING RIVER ACCESS

EXHIBIT E-2 : SLAB CREEK RUN TOPOGRAPHY AND ROAD MAP

Exhibit E-2

EXHIBIT F

SLAB CREEK RUN - PROPOSED RIVER ACCESS

Exhibit G1- G4: Photos

Photo 1: Mosquito Bridge South Entry - Looking North

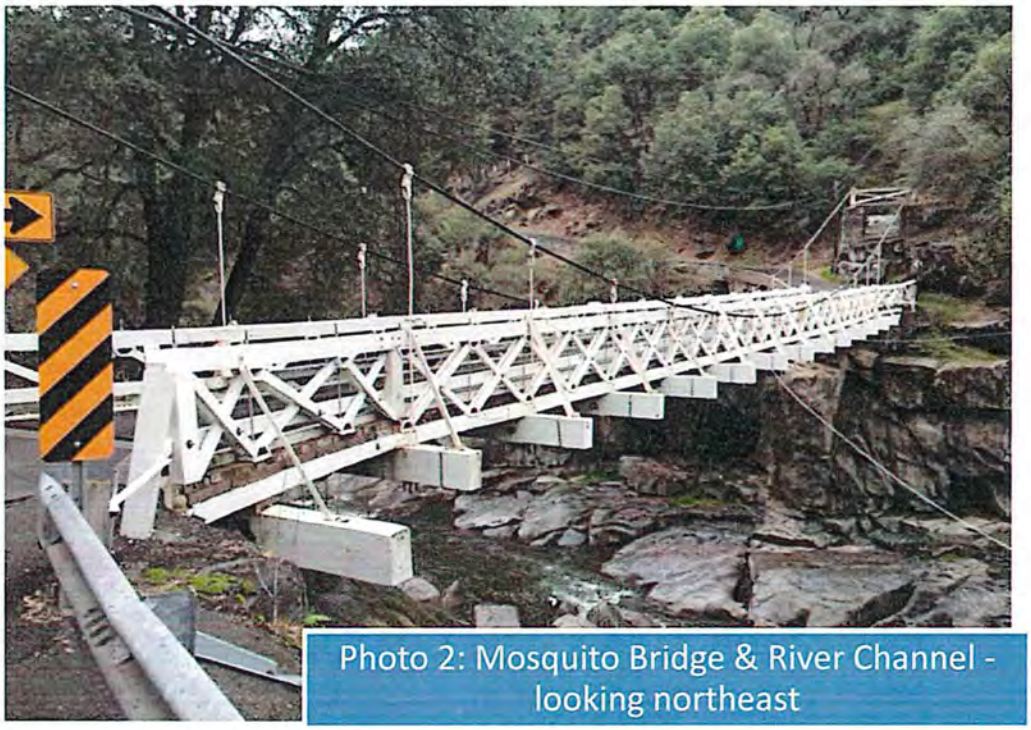


Photo 2: Mosquito Bridge & River Channel - looking northeast

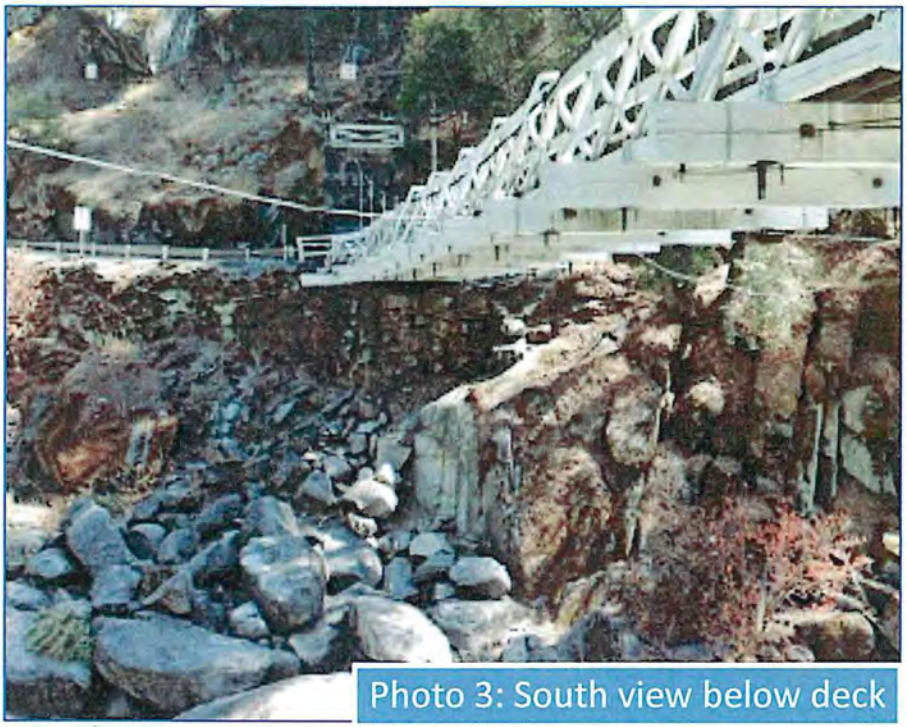


Photo 3: South view below deck

Left: View toward south (Placerville) side of the river channel. Scheduled releases bring water levels significantly higher than shown. To take-out, boaters portage by climbing up the bedrock

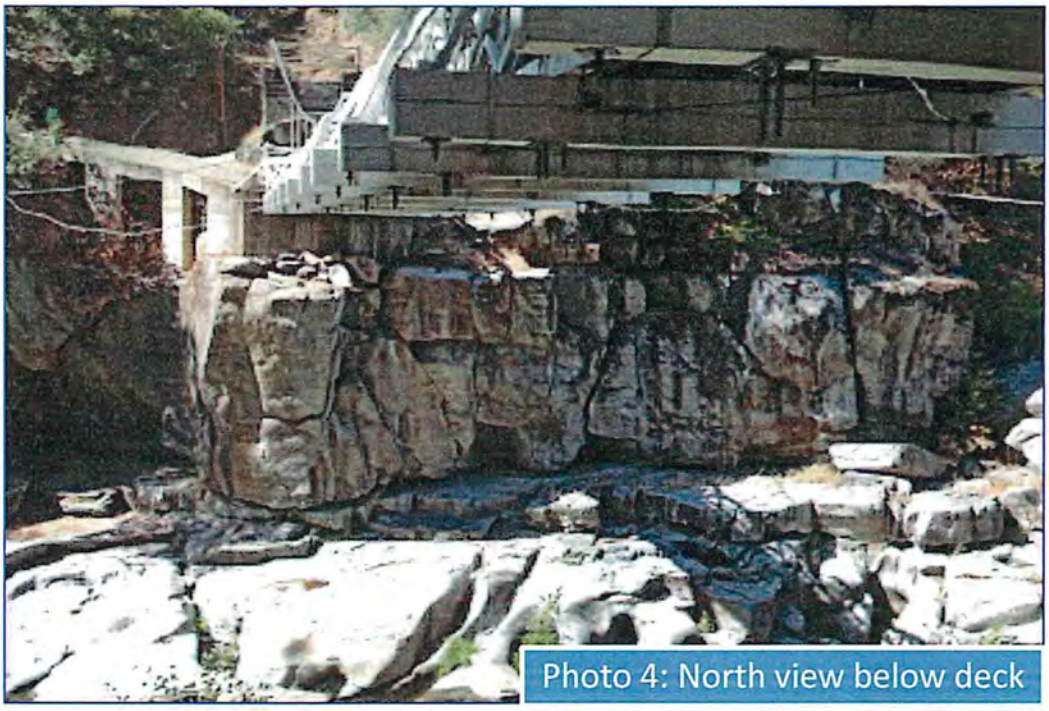


Photo 4: North view below deck

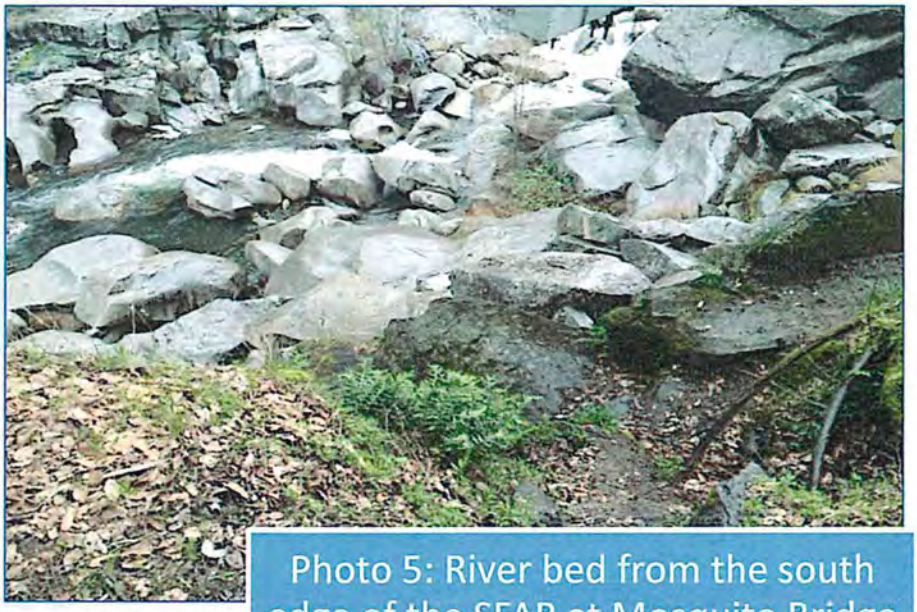


Photo 5: River bed from the south edge of the SFAR at Mosquito Bridge

Left: Evidence of pathways on the southwest side of the bridge entrance. Pathways are extremely steep and dangerous; not suitable for public pedestrian access.

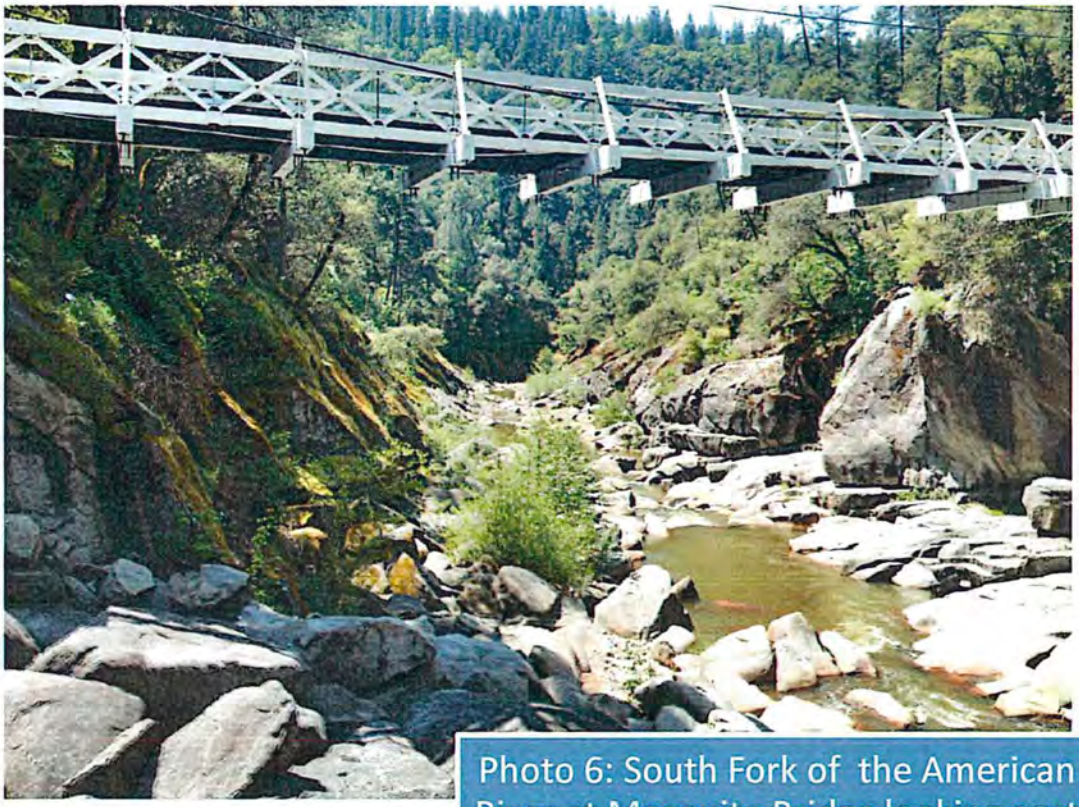


Photo 6: South Fork of the American River at Mosquito Bridge looking east

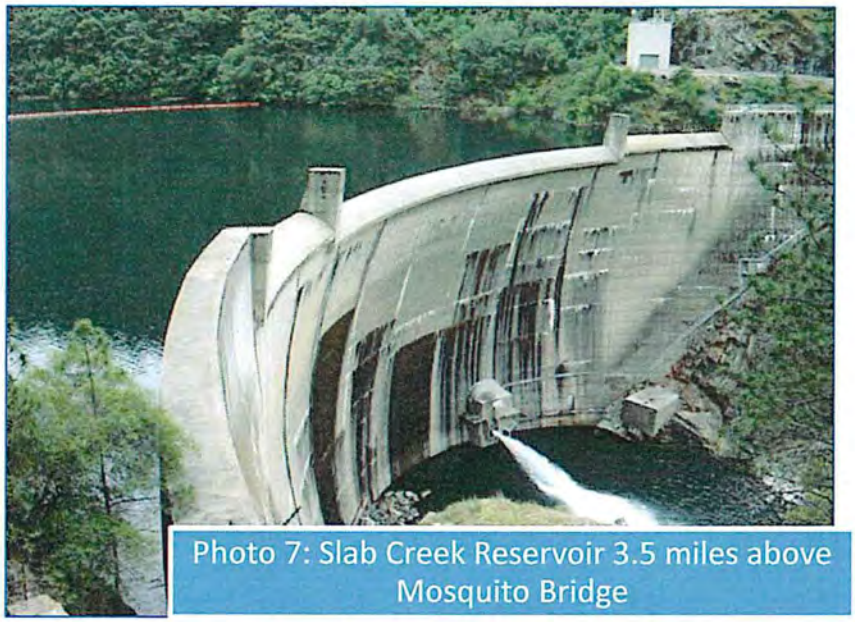


Photo 7: Slab Creek Reservoir 3.5 miles above Mosquito Bridge

Left: Slab Creek Reservoir (approximately 17,000 acre feet). According to SMUD past spills at Slab Creek Reservoir have been uncontrolled. Pending drought conditions, a new licensing agreement requires limited controlled releases for recreational uses starting in the spring of 2016.

Photo 8: South Fork of the American River during storm conditions

SMUD

EXHIBIT H: BOAT ACCESS AT SLAB CREEK RESERVOIR

New Slab Creek Powerhouse and Boating Flow Release Valve Project
September 2015

Source: AECOM 2015

Figure provided by SMUD

EXHIBIT H

Exhibit I: Slope Stability Map

El Dorado County Transportation Division

Public Access to the South Fork of the American River at Mosquito Road Bridge Public Outreach and Response to Comments

Introduction

On December 8, 2015 the El Dorado County Transportation Division reached out to stakeholders soliciting comments on the issue of river access within the vicinity of Mosquito Bridge Replacement Project. (See Attachment B – Memorandum). The invitation provided a project description and stated a river access feasibility study would be prepared as part of the proposed bridge replacement pursuant to CA Streets & Highway Code 991. Upon evaluating the written comments received, the El Dorado County Transportation Division prepared the following responses in conjunction with preparation of the feasibility study to be presented to the County Board of Supervisors in August, 2016.

List of Commenters

A list of public agencies, organizations and individuals who provided comments on river access for the Mosquito Bridge Replacement Project is presented below along with a brief summary of these comments followed by responses.

• Commenter
• **Public Agencies**
• US Department of the Interior, National Park Service
• **Private Organizations and Non-Profits**
• Sacramento Municipal Utility District
• American Whitewater
• **Private Individuals**
• Mark Divittorio
• Brian Ginsberg
• Janet Hayes
• Darrick Hilbert
• Matthew Phillips
• Thomas Stuart
• Chris Tulley
• Jeff Wasielewski

Comment Summary and Responses to Comments

Public Agencies

1. U.S. Department of Interior, National Park Service.

On December 15, 2014 National Park Service submitted a letter stated that, as a participant of the Upper American River Project, the section between Slab Creek Dam and White Rock Powerhouse is a

popular 7.5 mile Class IV-V whitewater run and there are few take-out options for boaters. With increased recreational flow days, there will likely be more boaters. The commenter referenced California Streets and Highway Code 991 and provided recommendations for the scoping process and implementation.

Response: A River Access Feasibility Study was prepared in conformance with California Streets and Highway Code 991. The study addressed recommendations in the comment letter including identifying existing boating access and current and future recreation within the Slab Creek reach/run. The study determined access within the bridge right of way is infeasible within the existing geographic constraints of the project area. The construction of parking and river access facilities would be considered a separate project due to funding limitations under the Federal Bridge Program and would require extensive excavation leading to unavoidable environmental impacts and costs.

Private Organizations and Non-Profits

2. Sacramento Municipal Water Utility District

The Sacramento Municipal Water Utility District (SMUD) submitted a comment letter on December 15, 2015, stating that SMUD does not intend to develop the Mosquito Bridge site for recreational boating or other purposes, and has no plans or desire to assume operations and maintenance responsibility for either the bridge or the adjoining road approaches to the existing bridge.

Response: Comments noted.

3. American Whitewater

American Whitewater (AW) submitted three comment letters dated November 18, 2014, July 27, 2015 and December 31, 2015. The latter was in direct response to the 12-09-15 invitation for comments on controlled river access. As an advocate of whitewater recreation, AW stated it would like to see public river access included in all bridge design alternatives for the Mosquito Bridge Replacement Project. AW described the new licensing and recreational release requirements and noted requirements for complying with California Streets and Highway Code 991. The commenter also stated AW is working with Caltrans on river access for the Highway 49 bridge replacement and suggested the County follow the same components when preparing a River Access Feasibility Study.

AW stated it does not support removing the existing Mosquito Bridge; citing such action would be inconsistent with screening criteria for preserving the community character. Options for river access during construction were requested to be considered. Under preferred scenarios AW suggested the following: (1) providing year round access to the river; (2) maintaining the existing bridge for pedestrian access; (3) providing year round vehicle access on the south side of the river; (4) exploring the possibility of additional parking at two locations; and (3) improving pedestrian access to the river from the bridge. Alternative scenarios were also suggested if year round access could not be provided.

On the issue of funding, AW noted an existing Cooperation Agreement between SMUD and El Dorado County that provides $590,000 to be utilized by the County for purposes of road maintenance, watershed management, and other miscellaneous activities related to the UARP and its impacts on facilities owned or services provided by, or any resource or other interest within the jurisdiction of, the

County. AW suggested since SFAR below Slab Creek is well within the boundaries of the UARP it stands to reason that some of these funds could be utilized for maintaining river access at Mosquito Road.

Response: El Dorado County supports and provides for outdoor recreation facilities, including facilities that serve recreational boating. The County is also aware of the current FERC re-licensing agreement and the provision for recreational flows on the South Fork of the American River that will increase opportunities for boating the Slab Creek Reach.

Pursuant to Streets and Highway Code 991 and 84.5, a report on the feasibility of providing public access to the river for recreational purposes was prepared. After careful examination the report concluded that the existing Mosquito Bridge site is an infeasible formal take-out without incurring tremendous cost and environmental impact. Developing parking and public access facilities would require extensive right of way acquisition, and construction excavation which could potentially harm the riverine ecosystem and further destabilize steep and unstable slopes. The study points out that there are projects planned by SMUD to improve river access at the Slab Creek and White House or Rock Creek facilities.

El Dorado County proposes to remove the existing Mosquito Bridge from the County's inventory list when traffic is shifted to the new bridge. Efforts to preserve/maintain the existing bridge and provide public access would be treated as a separate project due to funding limitations within the Federal Bridge Program. Other entities and organizations are not precluded from submitting a proposal to take over the ownership, maintenance and liability of the existing bridge. The suggestion by AW and others to use funds from the Cooperation Agreement between SMUD and County for purposes of road maintenance, watershed management and other activities for preserving the existing bridge would have consequences to existing usage of funds and is the responsibility of the Board of Supervisors and SMUD decision makers. Mosquito Road is proposed to remain with restricted vehicle access and pedestrians will continue to be able to walk to/from the river.

Private Individuals

4. Mark Divittorio

The commenter submitted an email on December 30, 2015 with a request to improve conditions at the Mosquito Bridge take out.

Response: Comment noted. See responses under no. 3 above.

5. Brian Ginsberg

Mr. Ginsberg submitted an email on December 17, 2015 requesting considerations for parking and river access at the existing bridge site, with a preference for year round access. The commenter discussed the importance of the site for boaters/kayakers to have the option to take out at Mosquito Bridge to avoid Motherlode Falls below. The letter states future recreational releases will draw large crowds of paddlers which could potentially create parking issues and unsafe conditions if adequate parking is not provided.

Response: El Dorado County is aware some boaters / kayakers opt to take out at Mosquito Bridge to avoid Mother Lode Falls. Mosquito Road is proposed to remain with restricted vehicle access and pedestrians will continue to be able to walk to/from the river at their own risk.

6. Janet Hayes

Ms. Hayes submitted an email on December 20, 2015 stating support for retaining the Mosquito Road Bridge and providing year round vehicle access to the river, along with additional parking. Alternatively, the commenter suggested providing vehicle access in correlation with scheduled recreational flow releases with adequate turnouts and parking. Ms. Hayes also recommended using the annual funding from SMUD for maintenance of Ice House road could potentially be used for preserving the old bridge and providing river access facilities.

Response: See responses under no. 3 and 5 above.

7. Darrick Hilbert

The commenter submitted an email on December 21, 2015 stating he would like to see year round vehicle access on the south side of Mosquito Bridge, additional parking on both sides of the river and the existing bridge maintained as pedestrian walkway. If only seasonal access can be provided, Mr. Hilbert coordinating with scheduled seasonal recreational flow releases. If vehicle access is restricted, parking should be made available above the gates.

Response: See responses under no. 3 and 5 above.

8. Mathew Phillips

Mr. Phillips submitted emails on July 23, 2015 and December 23, 2015 stating support for bridge Alternative 1, high level bridge. The commenter stated the Slab Creek section of the South Fork of the American River possesses high quality rapids and is in high demand with expert whitewater enthusiasts. Mr. Phillips expressed that river access for recreational purposes is important and should be considered with high regard at Mosquito Bridge. A vehicle for emergency purposes should also be considered along with adequate parking.

Response: See responses under 3 and 5 above.

9. Thomas Stuart

The commenter submitted an email on January 1, 2016 stating that the maintenance costs associated with keeping the old bridge should be borne by the County and not by Mosquito residents. Mr. Stuart suggested looking toward the rafting industry for ways to fund the upkeep of the old bridge and stated the area will become a patrolling issue for the Sheriff and Fire Department with the influx of people who may come for recreational purposes.

Response: The Mosquito Bridge Replacement Project is funded by the Federal Highway Bridge Program, which does not provide funding for maintenance or preservation of the old bridge. El Dorado County agrees keeping Mosquito Road open would be challenging to monitor and patrol by the Sheriff's Department due to the difficulty to access and turn around.

10. Chris Tulley

On December 29, 2015 Mr. Tulley submitted an email in support of providing river access and maintaining the existing bridge. The commenter discussed the regional role and importance of whitewater recreation and expressed support for providing year round river access, additional parking on the south side of the river, maintaining the existing bridge for pedestrian use. The commenter stated

if only seasonal vehicle access or no vehicle access is provided, that parking and turnouts should be provided on both sides above the gates.

Response: See responses under no. 3 and 5 above.

11. Jeff Wasielewski

On December 20, 2015, Mr. Wasielewski submitted an email expressing interest in retaining access to the Slab Creek run on the SFAR and encouraged efforts to preserve and improve boater access on the south side of the existing Mosquito Bridge. The commenter also suggested using the annual payment from SMUD to the County to fund public access facilities.

Response: See responses under no. 3 and 5 above.

COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION
http://www.edcgov.us/DOT/

PLACERVILLE OFFICES:
MAIN OFFICE:
2850 Fairlane Court, Placerville, CA 95667
(530) 621-5900 / (530) 626-0387 Fax

MAINTENANCE:
2441 Headington Road, Placerville, CA 95667
(530) 642-4909 / (530) 642-0508 Fax

LAKE TAHOE OFFICES:
ENGINEERING:
924 B Emerald Bay Road, South Lake Tahoe, CA 96150
(530) 573-7900 / (530) 541-7049 Fax

MAINTENANCE:
1121 Shakori Drive, South Lake Tahoe, CA 96150
(530) 573-3180 / (530) 577-8402 Fax

DATE: December 8, 2015

TO: Interested Agencies and Individuals

FROM: El Dorado County Community Development Agency, Transportation Division

RE: Invitation to Comment: Mosquito Bridge Replacement Project – Controlled River Access

El Dorado County received federal funds to replace the existing Mosquito Bridge located 6 miles north of U.S. Highway 50, along Mosquito Road at the South Fork of the American River. The bridge does not meet current standards such as load requirements and bridge width. Currently, the bridge requires extensive annual maintenance resulting in long term road closures. Structurally, the bridge is rated near the bottom of all state bridges with a sufficiency rating (SR) of 12.5 out of 100. Bridges with a SR of < 50 are eligible for replacement under the FHWA Highway Bridge Program (HBP). The HBP will not fund non-vehicular use. Therefore, the existing bridge may or may not be removed, depending upon whether or not a source of funding can be found to finance the ongoing, high cost of maintenance necessary to keep it open, even for pedestrian use. If such funding cannot be found, the existing bridge will be removed as required by the HBP.

Mosquito Road is a rural narrow roadway that meanders through mountainous terrain and switchbacks into the steep South Fork American River canyon that narrows to a single lane near the bridge on both roadway approaches. These approaches to the bridge include five tight hairpin turns—one on the south canyon face (Placerville side), and four on the north canyon face (Mosquito/Swansboro side). The 9 foot wide bridge is restricted to only small vehicles; larger vehicles, such as those of first responders, and trucks are physically unable to access the bridge.

Due to reasons cited above, the County is considering a more direct crossing by raising the bridge profile approximately 400 feet, leaving the Mosquito Road approaches to the existing bridge no longer necessary to cross the canyon. The portion of Mosquito Road that leads to the existing bridge may or may not be abandoned, depending upon the interest in keeping it open on a limited basis or closed altogether. One option is to restrict this portion of the road to foot traffic, emergency and utility vehicles only. In this instance, however, minimal maintenance to the road would still be needed.

As a potential user/stakeholder to the old road on both sides of the river, the County is requesting your feedback as to preferences and your level of willingness to contribute to a share of the road maintenance.

Existing access to and from the river near the existing Mosquito Bridge is also the subject of a feasibility study the County will conduct as part of the proposed bridge replacement project pursuant to CA Streets & Highway Code 991.

Please submit your comments to me no later than December 31, 2015 using the contact information below. Thank you for your interest in the Mosquito Bridge Replacement Project. If you have any questions, please do not hesitate to contact me. Please be aware that you will have additional opportunity to comment on the project as a whole when the CEQA document is distributed to the public.

Janet Postlewait, Principal Planner
El Dorado County Community Development Agency
Transportation Division
2850 Fairlane Court
Placerville, CA 95667
(530) 621-5993 / FAX (530) 626-0387
janet.postlewait@edcgov.us

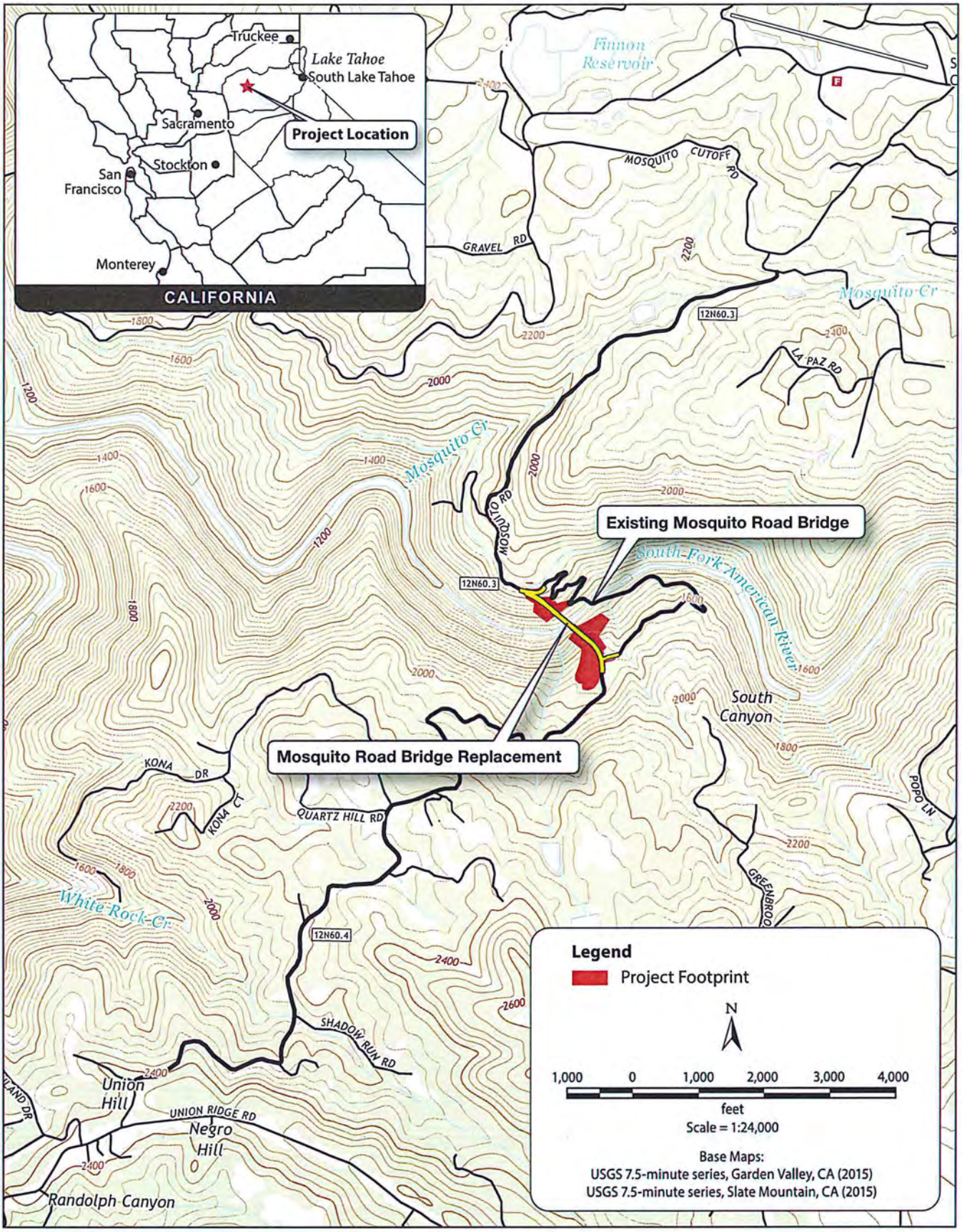


Figure 1
Location Map

South Fork American River Bridge Project

Initial Study with a Proposed Mitigated Negative Declaration

El Dorado County on State Route 49,

South Fork American River near the Towns of Coloma and Lotus

03-ED-49-23.66/24.42

03-0F310

EFIS#: 0300000078

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

October 2014

Caltrans

General Information about This Document

What is in this document:

The California Department of Transportation (Caltrans) as lead agency for California Environmental Quality Act (CEQA) has prepared this Initial Study (IS), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in El Dorado County, California. The document explains why the project is being proposed, what alternatives are considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.
- We would like to hear what you think. There are three alternatives proposed for this project, please consider your preferred alternative given all of the benefits and effects. If you wish to leave any comments about the proposed project, please send your written comments to Caltrans by the deadline stated below.
- Additional copies of this document and related technical studies are available for review at the Caltrans District 03 Office, at 703 B Street, Marysville, CA 95901, and at the El Dorado County library at 345 Fair Lane, Placerville, CA 95667. This document may be downloaded at the following website: *http://www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm*
- Send comments via postal mail to:
  Caltrans, Office of Environmental Management
  Attention: Maggie Ritter
  703 B Street, Marysville, CA 95901
- Send comments via email to:
  maggie.ritter@dot.ca.gov.
- Be sure to send comments by the deadline: **November 21, 2014**

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may: (1) give environmental approval to the proposed project, (2) do additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is obtained, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Maggie Ritter, Environmental Planning, 703 B Street, Marysville CA; (530)741-4535 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711

SCH#
03-ED-49
PM 23.66/24.42
03-0F310
EFIS# 03 0000 0078

South Fork American River Bridge Seismic Retrofit or Replacement on State Route 49, at post mile 23.66-24.42, within the Towns of Coloma and Lotus in El Dorado County

INITIAL STUDY with Proposed Mitigated Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation

October 17, 2014

John D. Webb
Office of Environmental Service - South
California Department of Transportation

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to seismically retrofit or replace the South Fork American River Bridge (Br No. 25-0021) in El Dorado County on State Route (SR) 49 at post mile (PM) 23.66/24.42 near Coloma and Lotus.

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a MND for this project. This does not mean that Caltrans' decision regarding the project is final. This MND is subject to change based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project, and pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The proposed project would have no effect on the following: farmland and timberland resources, air quality, noise, geology and soils, growth, coastal zone, environmental justice, wild and scenic rivers, hazards or hazardous materials, mineral resources, paleontology, population and housing, utilities and service systems.

- In addition, the proposed project would have less than significant effects to aesthetics, cultural resources, public services, land use and planning, recreation, hydraulics and water quality, and transportation/traffic.

With the following mitigation measures incorporated, the proposed project would have less than significant effects to biological resources, including riparian vegetation habitat.

For all alternatives, compensatory mitigation will likely be required for permanent impacts to riparian vegetation habitat.

_____ _____

John D. Webb Date
Chief, Office of Environmental Services
District 03
California Department of Transportation

Table of Contents

Project Vicinity Map

INDEX OF PLANS

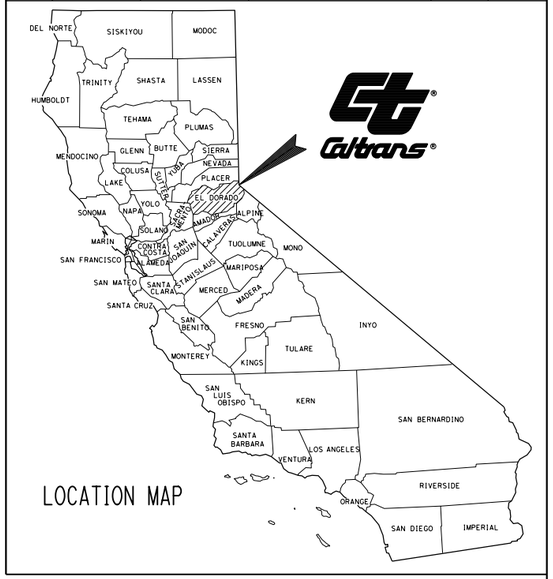
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	49			

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY



LOCATION MAP

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

BEGIN WORK
PM AA.B

BEGIN CONSTRUCTION
Sta "CCN1" XX+YY PM 24.42

END WORK
PM AA.B

END CONSTRUCTION
Sta "CCN1" XX+YY PM 23.66

PROJECT ENGINEER — DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
JUSTIN A. UNCK
No. 65889
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

PRELIMINARY DESIGN

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No.	00-000004
PROJECT ID	0000000000

PROJECT MANAGER

DESIGN ENGINEER

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

LAST REVISION

USERNAME => s127431

Alternative 2: Seismic Retrofit with Widening

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY PLAN

REGISTERED CIVIL ENGINEER — DATE

6/12/14

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JUSTIN A. UNCK — No. C65889 — Exp. 12/31/15 — CIVIL — STATE OF CALIFORNIA

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LEGEND:

- PROPOSED TCE
- PROPOSED R/W ACQUISITION
- OVER-ESTIMATED CUT
- OVER-ESTIMATED FILL
- EXISTING RIGHT OF WAY

ABBREVIATIONS:

TCE TEMPORARY CONSTRUCTION EASEMENT
CP OBTAIN COUNTY PERMIT

NOTES: Design features may not align with aerial due to old imagery and how the photo references into the drafting file.

ALT 2: SEISMIC RETROFIT WITH WIDENING

03-ED-49 EA 0F3100

PRELIMINARY MAPPING

SCALE: 1" = 50'

SHEET-1

43

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DESIGNED BY

CHECKED BY

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY PLAN

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6/11/14

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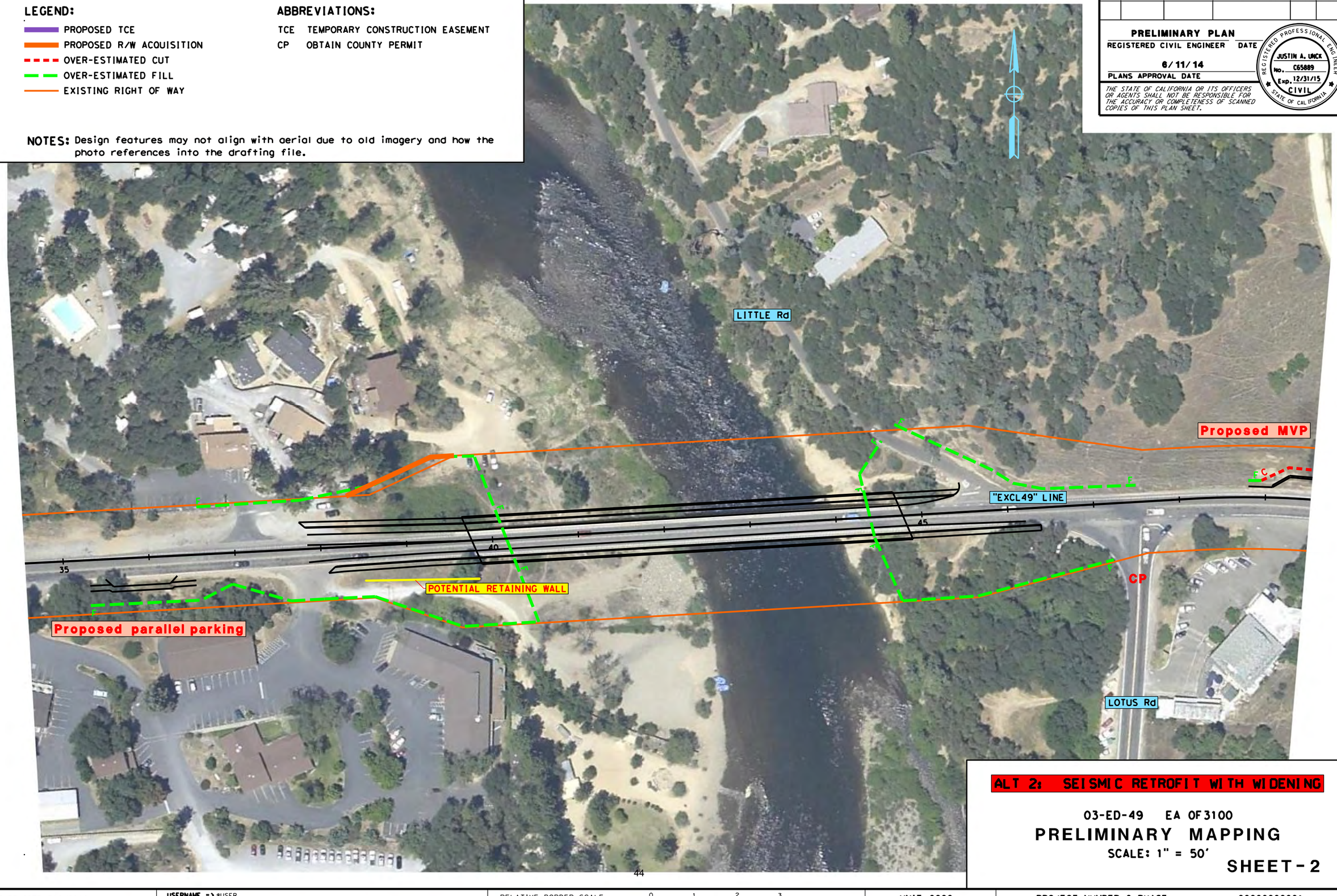

ALT 2: SEISMIC RETROFIT WITH WIDENING

03-ED-49 EA 0F3100

PRELIMINARY MAPPING

SCALE: 1" = 50'

SHEET - 2

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Exp. 12/31/15
CIVIL
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ALT 2: SEISMIC RETROFIT WITH WIDENING

03-ED-49 EA 0F3100

PRELIMINARY MAPPING

SCALE: 1" = 50'

SHEET-3

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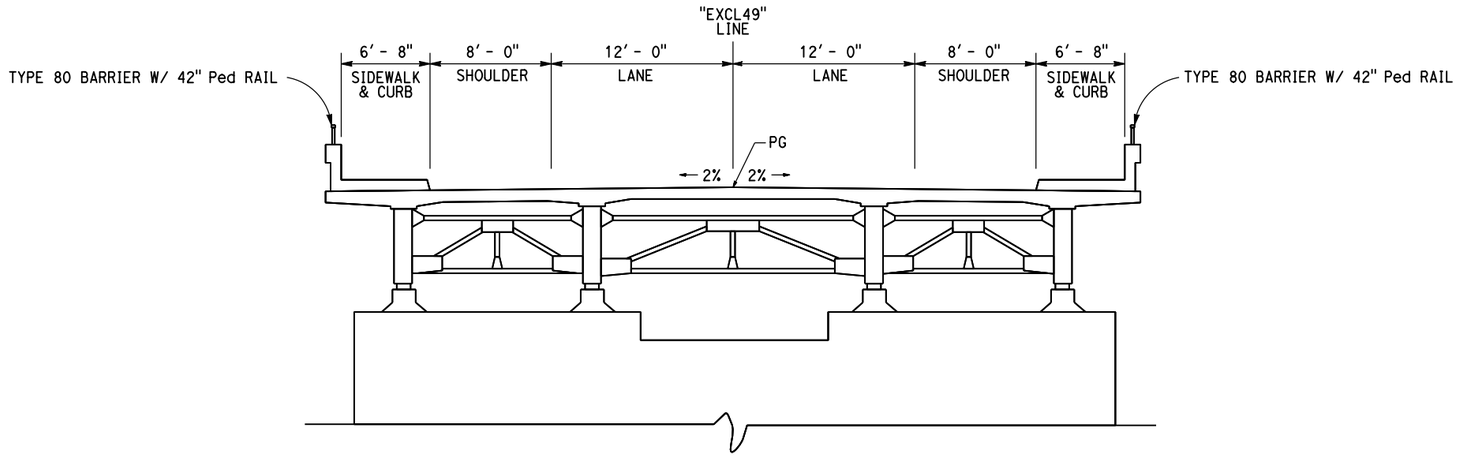

Sta 39+76 TO 44+78

Alt 2: Seismic Retrofit with Widening

BRIDGE TYPICAL SECTION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY ONLY

REGISTERED CIVIL ENGINEER DATE

7/22/14

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

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Alternative 3A: New Bridge on New Alignment

LEGEND:

- PROPOSED TCE
- PROPOSED R/W ACQUISITION
- OVER-ESTIMATED CUT
- OVER-ESTIMATED FILL
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ABBREVIATIONS:

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY PLAN

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7/22/14

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JUSTIN A. UNCK
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CIVIL
STATE OF CALIFORNIA

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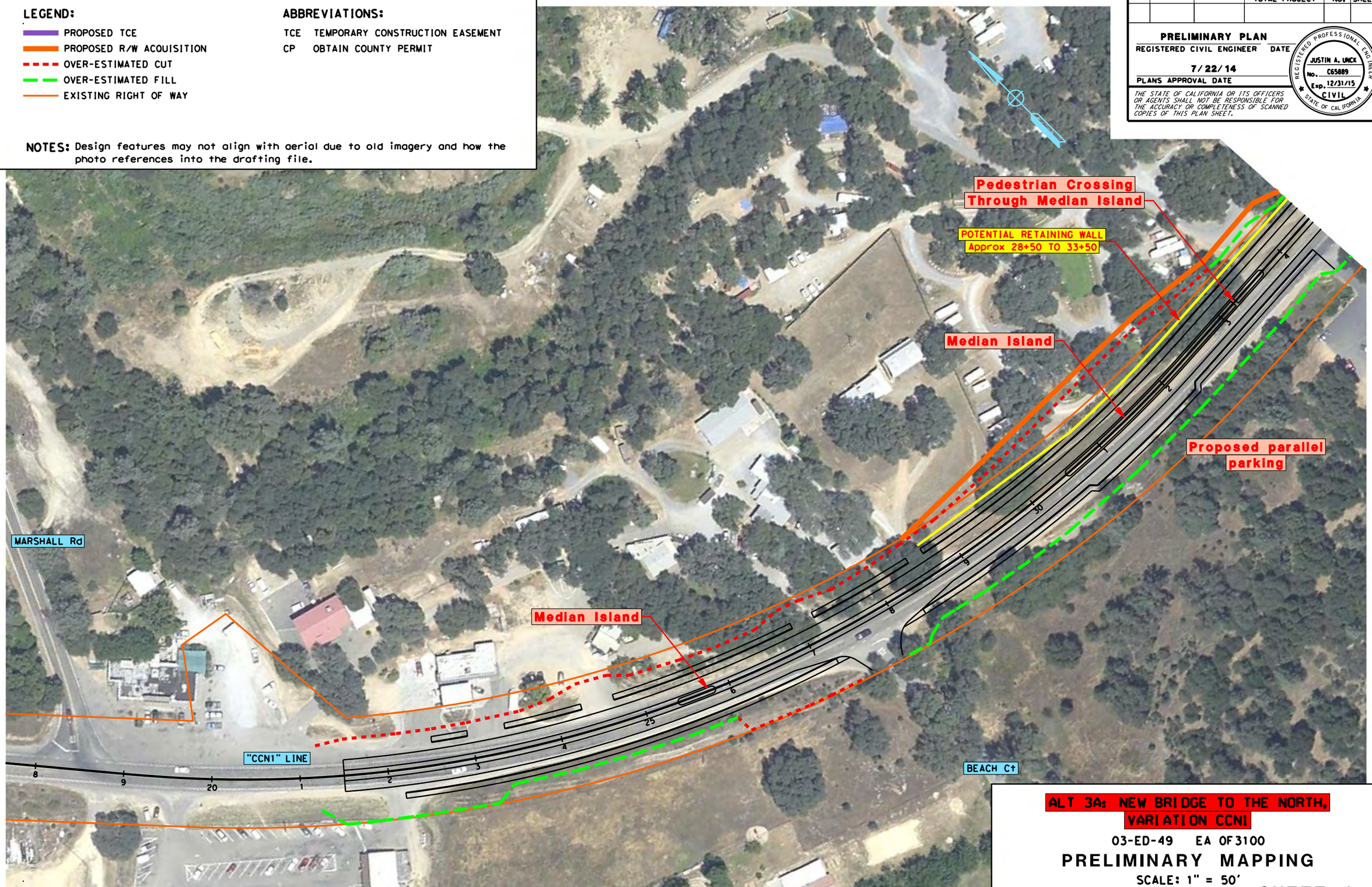

ALT 3A: NEW BRIDGE TO THE NORTH, VARIATION CCN1

03-ED-49 EA 0F3100

PRELIMINARY MAPPING

SCALE: 1" = 50'

SHEET-1

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY PLAN

REGISTERED CIVIL ENGINEER — DATE

7/8/14

PLANS APPROVAL DATE

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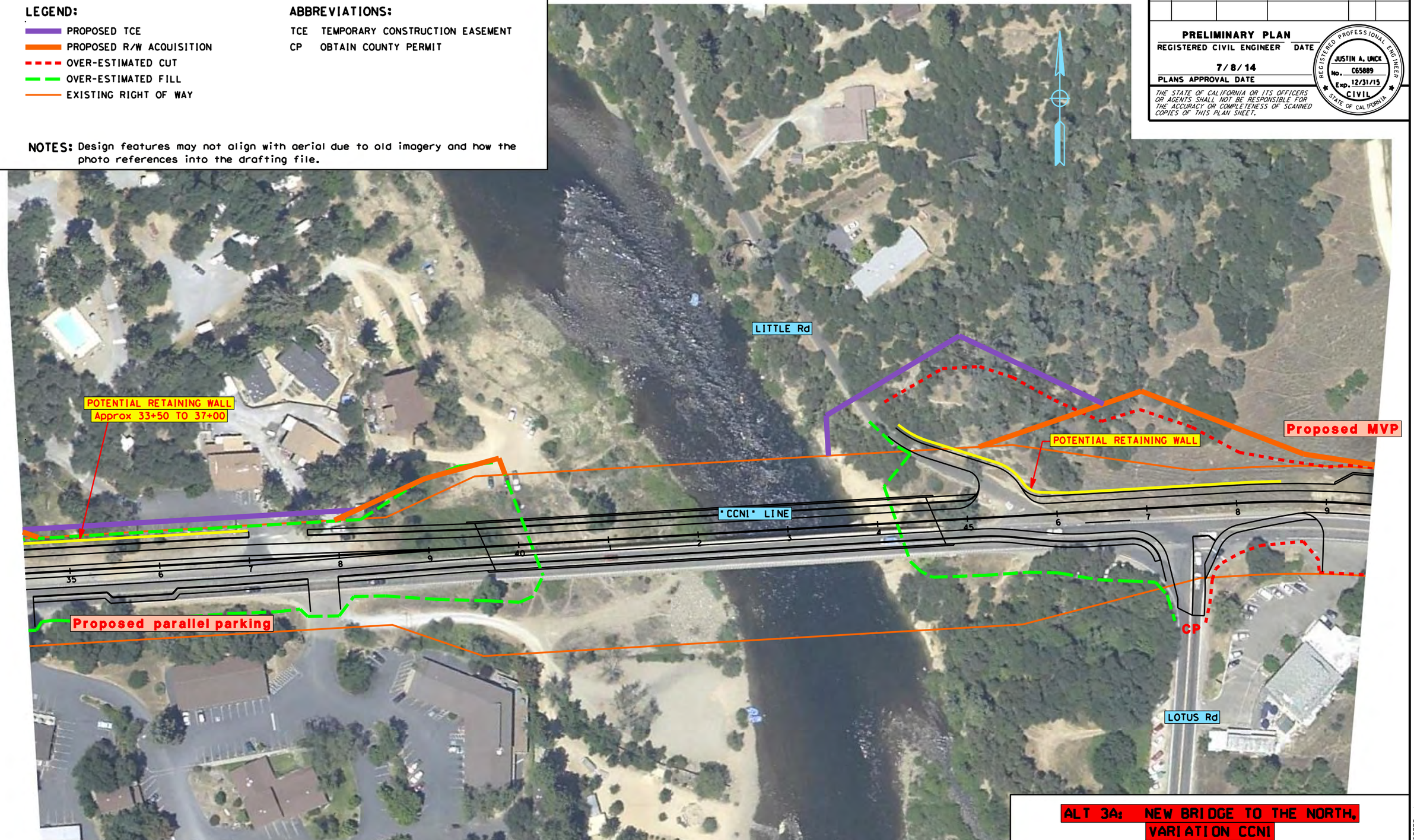

ALT 3A: NEW BRIDGE TO THE NORTH, VARIATION CCN1

03-ED-49 EA 0F3100

PRELIMINARY MAPPING

SCALE: 1" = 50'

SHEET - 2

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

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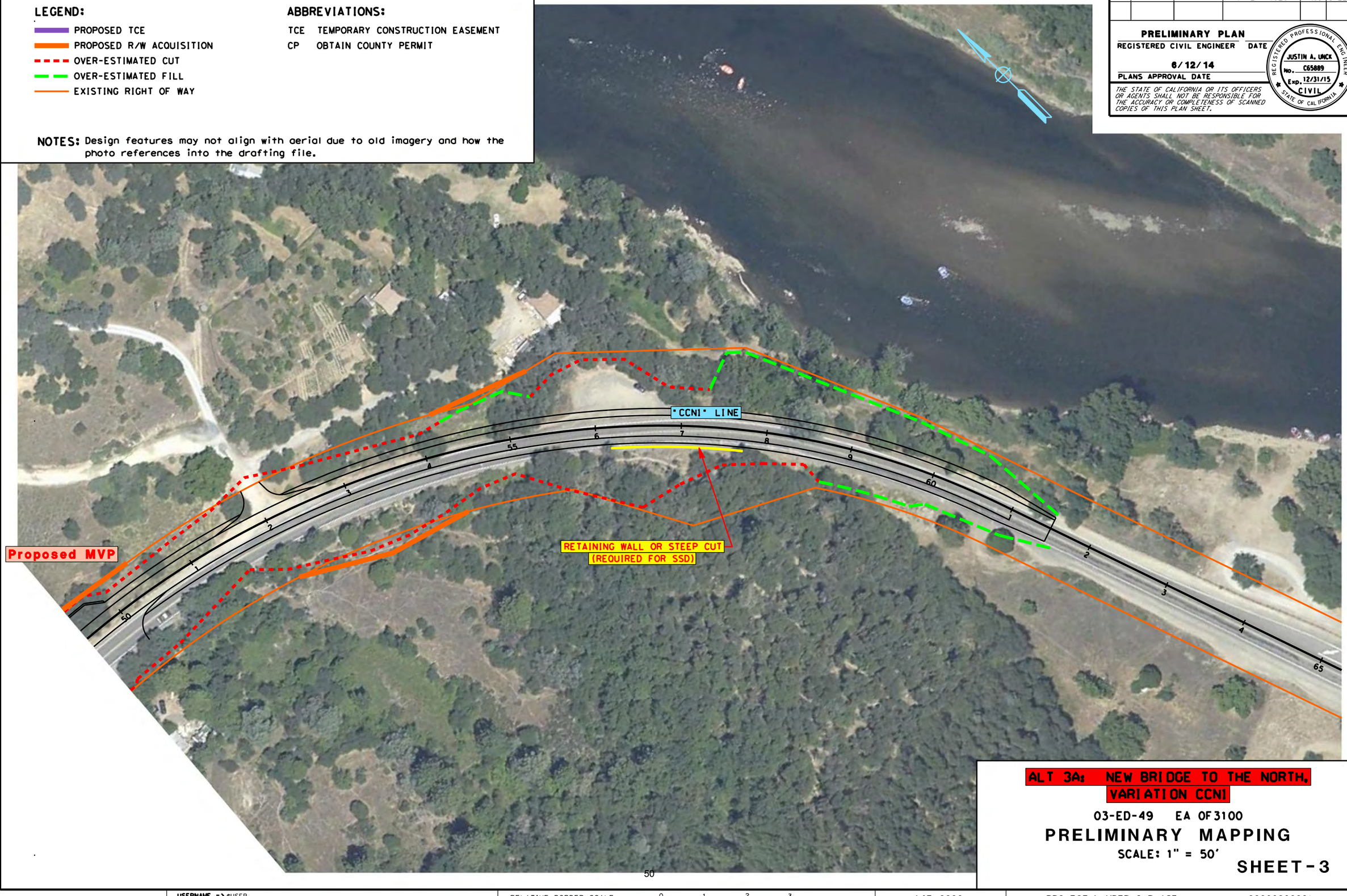

ALT 3A: NEW BRIDGE TO THE NORTH, VARIATION CCN1

03-ED-49 EA 0F3100

PRELIMINARY MAPPING

SCALE: 1" = 50'

SHEET-3

50

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DESIGNED BY

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UNIT 0000

PROJECT NUMBER & PHASE 000000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY ONLY

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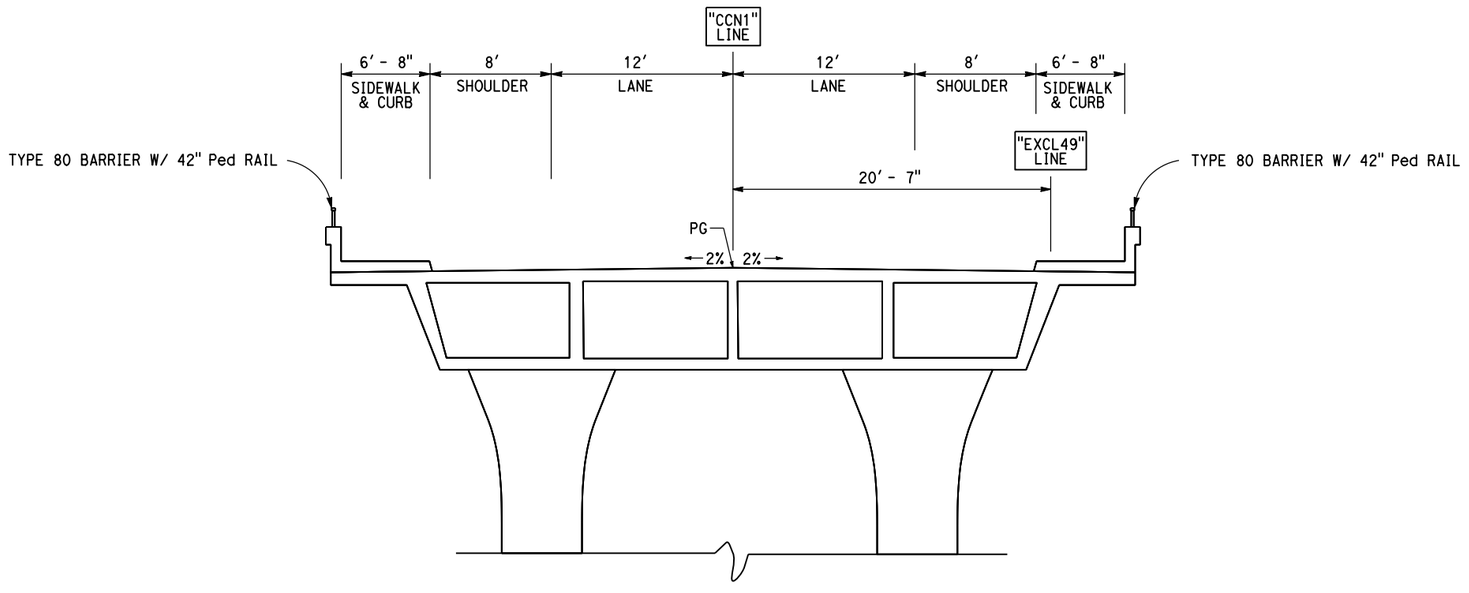

Sta 39+63 TO 44+65

Alt 3a: New Bridge to the North, Variation CCN1

BRIDGE TYPICAL SECTION

REVISED BY | DATE REVISED | CALCULATED-DESIGNED BY | CHECKED BY | FUNCTIONAL SUPERVISOR | STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | Caltrans

USERNAME =>s137431 | RELATIVE BORDER SCALE 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0000000000 | LAST REVISION | DATE PLOTTED =>22-JUL-2014

Alternative 3B: New Bridge on Existing Alignment

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY PLAN

REGISTERED CIVIL ENGINEER — DATE

6/13/14

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — JUSTIN A. UNCK — No. C65889 — Exp. 12/31/15 — CIVIL — STATE OF CALIFORNIA

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LEGEND:

- PROPOSED TCE
- PROPOSED R/W ACQUISITION
- OVER-ESTIMATED CUT
- OVER-ESTIMATED FILL
- EXISTING RIGHT OF WAY

ABBREVIATIONS:

TCE TEMPORARY CONSTRUCTION EASEMENT
CP OBTAIN COUNTY PERMIT

NOTES: Design features may not align with aerial due to old imagery and how the photo references into the drafting file.

ALT 3B: NEW BRIDGE ON THE EXISTING ALIGNMENT, VARIATION TSS1

03-ED-49 EA 0F3100

PRELIMINARY MAPPING

SCALE: 1" = 50'

SHEET-1

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LEGEND:

- PROPOSED TCE
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PRELIMINARY PLAN

REGISTERED CIVIL ENGINEER DATE

7/8/14

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JUSTIN A. UNCK
No. C65889
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

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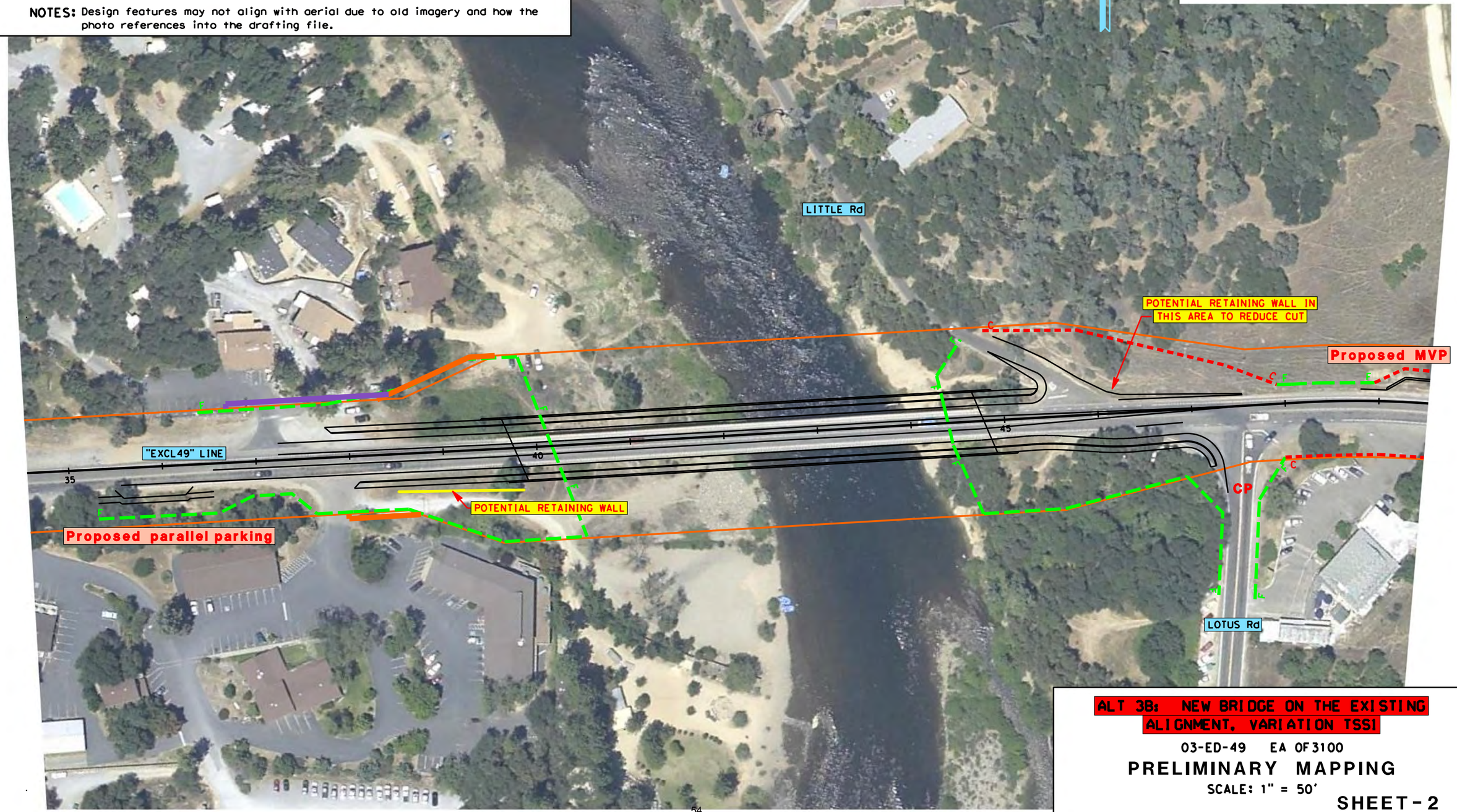

ALT 3B: NEW BRIDGE ON THE EXISTING ALIGNMENT, VARIATION TSS1

03-ED-49 EA 0F3100

PRELIMINARY MAPPING

SCALE: 1" = 50'

SHEET - 2

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CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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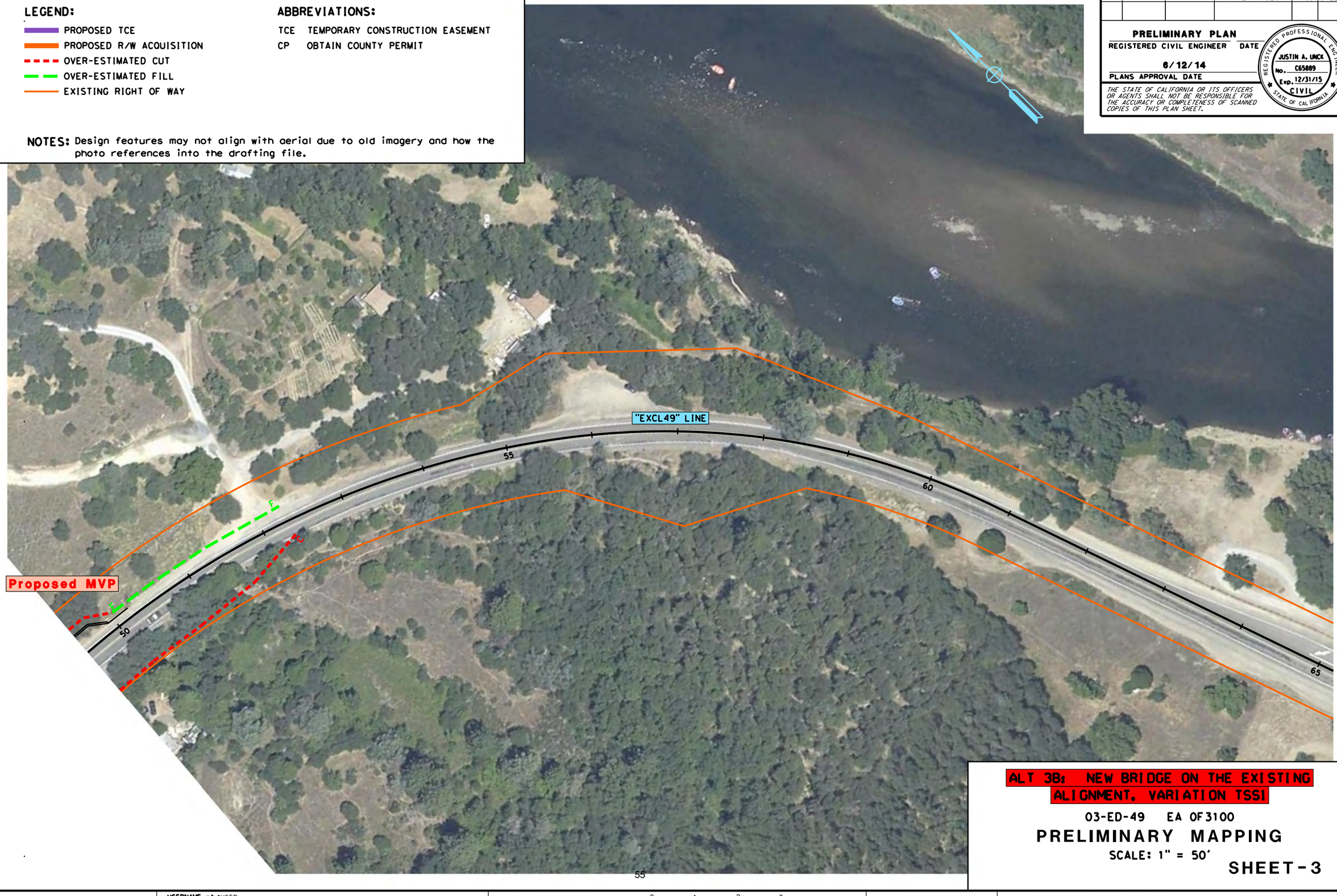

ALT 3B: NEW BRIDGE ON THE EXISTING ALIGNMENT, VARIATION TSS1

03-ED-49 EA 0F3100

PRELIMINARY MAPPING

SCALE: 1" = 50'

SHEET-3

REVISED BY | DATE REVISED

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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PRELIMINARY ONLY

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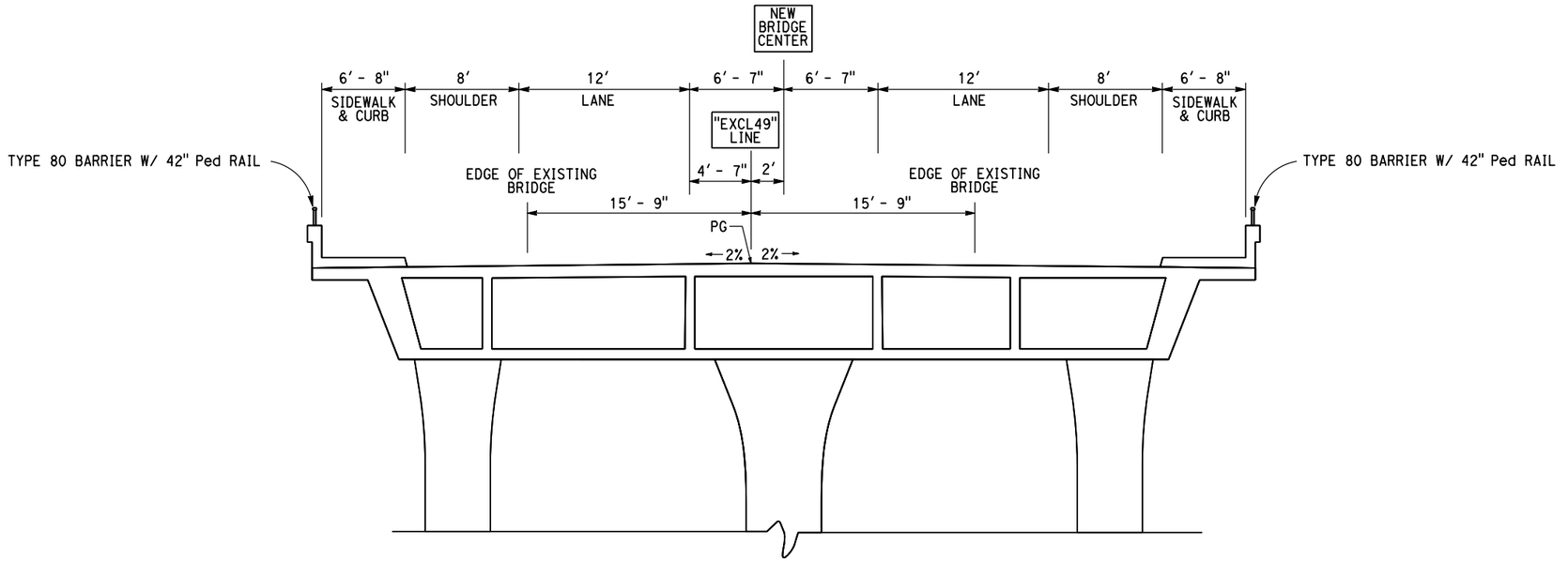
NOTES:
1. NO SCALE



Sta 39+76 TO 44+78

Alt 3b: New Bridge on the Existing Alignment, Variation TSS1

BRIDGE TYPICAL SECTION

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans®

USERNAME => s127431 | RELATIVE BORDER SCALE 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0000000000 | LAST REVISION | DATE PLOTTED => JUL 22, 2014

Chapter 1 Proposed Project

Introduction

The California Department of Transportation (Caltrans) is the lead agency for the California Environmental Quality Act (CEQA) and for the National Environmental Policy Act (NEPA). The project did not require an Environmental Assessment with a Finding of No Significant Impact (EA/FONSI) for NEPA; rather the NEPA approval will be a Categorical Exemption (CE) while the CEQA document is this Initial Study with a proposed Mitigated Negative Declaration (IS/MND).

Caltrans proposes to seismically retrofit or replace the South Fork American River Bridge in El Dorado County on State Route (SR) 49 from post mile (PM) 23.66 to 24.42. The project is programmed in the 2012 State Highway Operation and Protection Plan (SHOPP) Bridge Seismic Restoration Program and is listed in the Sacramento Area Council of Governments (SACOG) 2035 Metropolitan Transportation Plan.

Purpose and Need

The purpose of this project is to preserve the integrity of the highway facility by rehabilitating or replacing the South Fork American River Bridge (Br. No. 25-0021). The bridge needs to be rehabilitated or replaced in order to meet seismic standards.

The South Fork American River Bridge was identified in the Bridge Inspection Reports as needing a seismic retrofit and other repair work which included correcting vulnerable hinges, providing cross bracing for tall steel girders, and updating the bridge rail to current standards. The bridge was identified in the 2010 project scope and summary report (PSSR) as needing a seismic retrofit without widening. However, based on the local community feedback, just a bridge retrofit without widening would not address the needs of pedestrians and bicyclists. A supplemental PSSR, approved in November 2011, provided a much broader range of alternatives, in which all of the build alternatives included widening the structure for pedestrian and bicycle use.

Project Description

Caltrans proposes to rehabilitate or replace the South Fork American River Bridge on SR 49 at post mile 24 in El Dorado County, within the communities of Coloma and Lotus. The viable alternatives considered for the project are the Seismic Retrofit with Widening (Alt. 2), New Bridge to the North (Alt. 3A), and New Bridge on the Existing Alignment (Alt. 3B). The new or rehabilitated bridge will be upgraded to

meet current design standards and will include two 12 foot lanes, 8 foot shoulders, 6 foot sidewalks, and a see-through bridge rail. Additionally, a no-build alternative is considered.

Depending on the alternative and final configuration, many of the following items of work are included in the project: road realignment, road widening, hot mix asphalt (HMA) overlay, profile correction, super correction, bridge work, embankment cut/fill, grinding, reconstruct access roads, equipment staging area, drainage/culverts, metal beam guardrail (MBGR), retaining walls, erosion control, temporary and permanent storm-water best management practices (BMP's), pavement striping and markings, temporary and permanent signing, electrical work including a flashing beacon system, markers/delineators, sidewalks and other concrete work, fencing, work in the 100 year floodplain, establishment of a clear recovery zone and sight distance clearance, right of way acquisition, temporary easements, permits to enter, utility relocation, ground disturbance, vegetation and tree removal, landscaping, pile driving, seasonal construction window, night work, river access improvements, supplemental parking, work in the stream channel, traffic control, street lighting if needed, and other miscellaneous work as needed to construct the project.

Alternatives

PROJECT ALTERNATIVES

During the development of all projects, alternatives are considered to the extent necessary to minimize items such as cost and/or potential environmental impacts, or to maximize public benefits. Generally, the concept and scope of the project alternatives can include location, geometric features, staging, construction impacts, sensitive areas, or a mix of modes. After the public circulation period, all comments will be considered, and Caltrans will select a preferred alternative and make the final determination of the project's effect on the environment. In accordance with the California Environmental Quality Act (CEQA), if no un-mitigable significant adverse impacts are identified, Caltrans will prepare a Mitigated Negative Declaration (MND). Final selection of a preferred alternative will occur after the public review and comment period. (See Chapter 3, Comments and Coordination, for more information.)

Common Design Features of the Build Alternatives

The viable build alternatives will each contain at least two 12 foot lanes with an 8 foot shoulder and 6 foot sidewalks on both sides, built to current standards and Americans with Disabilities Act (ADA) compliant. Though no detours will be

incorporated into the project, traffic control measures will be needed, including one way, reversing traffic control at various times during construction. Each of the alternatives requires differing amounts of one way, reversing traffic control. All alternatives will incorporate visual aesthetics to the bridge rail, bridge design, and retaining walls. Each viable alternative is expected to take two to three construction seasons to complete, this estimate accounts for completing some work during off season periods.

Viable Project Alternatives

Alternative 2: Seismic Retrofit with Widening

Alternative 2 would seismically retrofit the existing bridge, and widen it to allow for standard lanes (12'), shoulders (8'), sidewalks (6'), and see-through bridge rails. Work on the bridge approaches would include widening and work needed to blend and connect the widened bridge and sidewalk to the existing roadway and foot paths. A retaining wall may be needed in order to maintain bridge maintenance and pedestrian access to the river if a steep slope is not incorporated. No additional right of way (R/W) is needed for this alternative.

During construction, this alternative would provide one-way reversible traffic control to public traffic at all times and two lanes would remain open when construction operations are not actively in progress.

Alternative 3A: New Bridge to the North on New Alignment

Alternative 3A would replace the existing bridge with a new bridge. In order to accommodate new bridge construction, the roadway alignment would shift to the north, and a new bridge would be constructed one half at a time using staged construction to minimize the shift. The new bridge would have standard lanes (12'), shoulders (8'), sidewalks (6'), and see-through bridge rails. Alternative 3A would have continuous sidewalks on both sides of the bridge with longer segments west of the new bridge, and a shorter sidewalk segment to the east of the new bridge. Due to the centerline shift of the new bridge, the roadway improvements would extend from the bridge and on to the existing roadway both west and east on SR 49. To the west, the project would connect approximately at the Marshall Road intersection and to the east the project would connect just before the Marshall Gold Discovery State Historic Park. To the west of the bridge, the variable width two-way left turn lane and median islands would be replicated. The new design would include additional median islands

with improved contrast features to provide traffic calming and a 12’ wide two-way left turn lane. Designated turn lanes would be placed where needed.

With Alternative 3A, retaining walls may be needed to provide pedestrian access if certain R/W acquisitions or steep slopes are not incorporated into the project. The Lotus Road intersection, as well as driveways, including Little Road, would be reconstructed to meet current design standards. Roadway profile and super correction work would be incorporated into the project. R/W acquisition would be required because the new bridge’s alignment shifts and the continued segments of the roadway require sight distance and standard roadway design.

During construction Alternative 3A would provide one-way reversible traffic control to public traffic at all times and two lanes will remain open when construction operations are not actively in progress.

Alternative 3B: New Bridge on the Existing Alignment

Alternative 3B involves a new bridge constructed in three portions using staged construction. The bridge center would shift approximately 2 feet to the south. The final footprint of this bridge includes standard lanes (12’), shoulders (8’), sidewalks (6’), including a 13’2” median, plus see-through bridge rails. The extra median width is a byproduct of the staged construction needed to accommodate construction of a new bridge following the existing alignment. Work on the bridge approaches would be generally limited to widening and connecting the widened bridge and sidewalk to the existing roadway and foot paths. A retaining wall may be needed to perpetuate maintenance and pedestrian access to the river if a steep slope is not incorporated. Another retaining wall and driveway realignment may be needed on Little Road, and some roadway improvements, such as connecting Little Road and Lotus Road to the highway, may be completed at the Lotus Road intersection. Minor R/W acquisition will be needed to accommodate the bridge abutment fill footprint.

During construction, Alternative 3B would provide one-way reversible traffic control to public traffic at all times and two lanes will remain open when construction operations are not actively in progress.

No-Build (No-Action) Alternative

The no-build alternative would leave the existing bridge in its current condition. This would not address the seismic deficiencies of the bridge and it would not address the

lack of pedestrian and bicycle facilities on the bridge. The no-build alternative does not meet the purpose and need of the project.

COMPARISON OF ALTERNATIVES

During the public review period, all comments will be considered; Caltrans will compare and weigh the benefits and impacts of the alternatives then select a preferred alternative. A final determination of the project's effect on the environment will be made with the selection of the preferred alternative.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION

The following alternatives were considered and rejected:

Alternative 1: Seismic Retrofit

This alternative would provide a seismic retrofit of the existing structure and construct a new safety barrier without widening the bridge. Although a Caltrans design exception was approved for non standard shoulders, this alternative was rejected due to opposition from the community and local governments because it does not accommodate pedestrians and bicycles. This alternative was first identified in the Project Scope Summary Report (PSSR).

Alternative 3: New Bridge

This alternative would construct a new bridge that meets current design standards on the existing alignment. To construct a bridge of standard width on the existing alignment, SR 49 would have to be closed and have a detour established. This alternative was rejected because a suitable detour does not exist and a full closure would face strong opposition from the community and local governments. This alternative was first identified in Supplemental PSSR.

Alternative 3: New Bridge, Variations NW1 and SW1

These two variations would construct a new bridge that meets current design standards on a new alignment (NW1 to the north and SW1 to the south). The 9' centerline shift in these alternatives leads to bridge stage construction that requires extensive one way traffic control. These variations were rejected because there were other viable alternatives that minimized traffic control impacts, which is an important issue to the local community. This alternative was not studied previously.

Alternative 3: New Bridge, Variation CS1

This variation would construct a new bridge that meets current design standards on a new alignment to the south. The 21' centerline shift in this alternative creates encroachments on existing business driveways on the south west corner of the bridge. Relocation and reconstruction of driveways results in substandard designs, reduced access capacity, and increased parking lot congestion. This variation was rejected because of the potential impacts to the businesses on the southwest corner of the bridge, and there is another similar alternative that remains viable (Alt 3A). This alternative was not studied previously.

Alternative 3: New Bridge, Variation TSN1

This variation would construct a new bridge that meets current design standards and has a bridge center that is shifted approximately 2' to the north. This alternative was rejected since there is a similar alternative that remains viable (Alt 3B). This alternative was not studied previously.

Alternative 4: Seismic Retrofit with Attached Pathways

This alternative would provide a seismic retrofit of the existing structure and construct a new safety barrier without widening the bridge. Additionally, pedestrians and bicyclists would be accommodated by new pathways created by attaching steel beams to the existing piers to provide support for the pathway. This alternative was rejected due to lack of clearance under the attached pathways for anticipated design flood elevations. This alternative was first identified in the Supplemental PSSR.

Alternative 5: Seismic Retrofit with Adjacent Pedestrian/Bicycle Bridge

This alternative would provide a seismic retrofit of the existing structure and construct a new safety barrier without widening the bridge. Additionally, a dedicated pedestrian/bicycle bridge would be constructed adjacent to the existing bridge. Although a Caltrans design exception was approved for non standard shoulders, this alternative was rejected due to a lack of interest by the local community and concerns regarding pedestrians and bicyclists having to cross SR 49 to use the new bridge. This alternative was first identified in the Supplemental PSSR.

Permits and Approvals Needed

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

Agency	Permit/Approval	Status
United States Fish and Wildlife Service (USFWS)	Section 7 Consultation for Threatened and Endangered Species Review and Comment on 404 Permit	Ongoing during Project Approval and Environmental Document (PAED)
United States Army of Engineers (USACE)	Section 404 Permit	Consultation started. Permit will be obtained during the final design phase
California Department of Fish and Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement Permit	Consultation started. Permit will be obtained during the final design phase
Central Valley Regional Water Quality Control Board (CVRWQCB)	Section 401 Water Quality Certification	Will be obtained during the final design phase

Chapter 2 – Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

As part of the scoping and environmental analysis carried for the project, the following environmental issues were considered but no adverse impacts were identified. As a result, there is no further discussion about these issues in this document:

Coastal Zone: The project location is not located within a Coastal Zone of California.

Wild and Scenic Rivers: The South Fork American River, over which this project is located, does not fall within the official Wild and Scenic Rivers.

Growth: The project does not increase roadway capacity with the construction of the new or rehabilitated bridge therefore it does not have any growth related indirect impacts.

Farmlands/Timberlands: The project area is not located near any farmland or timberland resources.

Environmental Justice: No minority or low-income populations have been identified as per Executive Order (EO) 12898 and Title VI Policy Statement. Therefore all three alternatives will not cause disproportionally high adverse effects on any minority or low-income population as per EO 12898 and Title VI.

Utilities and Emergency Service: The project is not expected to substantially disrupt any utilities or emergency services in the area.

Geology/Soils/Seismic/Topography: Based on the project work, location, and conversations with the engineer, the project will not have an adverse effect on geology/soils/seismic/topography.

Paleontology: Based on the project work and location, there should be no affect to paleontological resources.

Hazardous Waste/Materials: The project work and location will not have an adverse affect on hazardous waste/materials.

Air Quality: Under the provisions of Section 7-1.02C "Emission Reduction" and Section 14-9.03 "Dust Control", Provision 14.902, "Air Pollution Control", requires

the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district. There may be some dust associated with the bridge construction, however it will be temporary in nature and all projects follow air quality regulations.

Noise: Depending on the alternative chosen, there may be some noise associated with construction equipment and pile driving, however this will be temporary in nature and will not exceed threshold capacity for Noise Control standards.

Human Environment

LAND USE

Existing and Future Land Use

The existing land use in the project area consists of both commercial, tourist/recreational, and residential. In both directions of SR 49 from the South Fork American River Bridge (SFARB), the land use classification is rural residential with rolling terrain. There are no planned developments within the project area, at this time. In El Dorado County, most of the proposed or planned developments are located along SR 50 which connects the Central Valley and Bay Area to South Lake Tahoe and Lake Tahoe and travels through the City of Placerville. Lotus and Coloma are approximately half way in between Auburn and Placerville on SR 49, traveling north-south through the Sierra Nevada foothills.

Because the proposed project will not alter the existing land use, there are no impacts to land use. With the inclusion of sidewalks, and a standard roadway shoulder with room for bicycles, the project follows the recreational and commercial land use designations in the project area and encourages all modes of transportation, including pedestrians and bikes.

CONSISTENCY WITH STATE, REGIONAL, AND LOCAL PLANS AND PROGRAMS

ENVIRONMENTAL CONSEQUENCES

Policy	Alternative 2, Seismic Retrofit	Alt. 3A, New Bridge on new allignment	Alt. 3B, New Bridge, wider	No Build Alt.

Caltrans Regional Transportation Concept Report for SR 49	*Somewhat Consistent* – Project design does not include a desired left turn lane at Lotus Rd.	*Somewhat Consistent* – Project design does not include a desired left turn lane at Lotus Rd.	*Somewhat Consistent* – Project design does not include a desired left turn lane at Lotus Rd.	*Not Consistent*
El Dorado County General Plan 2004	*Consistent*	*Consistent*	*Consistent*	*Not Consistent*
El Dorado County Parks and Trails Master Plan	*Consistent*	*Consistent*	*Consistent*	*Not Consistent*
Henningsen-Lotus Park Conceptual Master Plan, June 2014	*Somewhat Consistent* - Plans to work with locals /county to connect trail in future, but not in project	*Somewhat Consistent* - Plans to work with locals /county to connect trail in future, but not in project	*Somewhat Consistent* -Plans to work with locals /county to connect trail in future, but not in project	*Not Consistent*
CA Streets and HWYs Code 84.5 – Consideration of Public Access for Recreation	*Consistent* – supplement parking, maintaining river access	*Consistent* – supplement parking, maintaining river access	*Consistent* – supplement parking, maintaining river access	*Not Consistent*
Complete Streets – Integrating the Transportation Movement	*Somewhat Consistent* – improvement to bridge structure only	*Consistent* - sidewalk, and 8' shoulders through town and across bridge	*Somewhat Consistent* – improvement to bridge structure only	*Not Consistent*

* In the following section, the various plans are summarized and then compared for consistency with the project alternatives, 2, 3A, and 3B. Explanations on the various plans' consistencies are shown:

Regional Transportation Concept Report (TCR) State Route 49 by the Office of Advance and System Planning Caltrans, September 2000:

The Transportation Concept Report for El Dorado County SR 49, Segment 4 (post mile 15.69 to 38.23) states that the "community would like to promote recreational activities in the area, particularly rafting on the American River, and would like to add left turn lanes at Marshal Road and Lotus Road…to accommodate vehicular traffic. However pedestrian safety and convenience must be allowed for when considering any road work."

The TCR for SR 49 suggests a left turn lane at Lotus Road, however Caltrans' traffic analysis found that a turn lane was not warranted because it did not meet the required traffic volumes. Since the TCR was prepared, a left turn lane was installed at Marshall Road. This proposed project remains consistent with the TCR and benefits to the corridor by providing pedestrian and bicycle mobility to the community.

El Dorado County General Plan (EDGP) A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief, 2004:

Some of the main land use goals in the EDGP include the protection and conservation of existing communities and rural centers, the creation of new sustainable communities, and the curtailment of urban/suburban sprawl. The location and intensity of future development should be consistent with the availability of adequate infrastructure, and mixed and balanced uses that promote the use of alternate transportation system. This proposed project remains consistent with the EDGP.

El Dorado County Parks and Trails Master Plan, March 2012:

The El Dorado County Parks and Trails Master Plan is part of the EDGP but goes into a more detailed analysis of the parks and trails of El Dorado County, excluding the Tahoe Regional Planning Association (TRPA) territory within the County. The purpose of the El Dorado County Parks and Trails Master Plan is to provide direction and implementation strategies to guide the acquisition, development, and operation of County-owned parks and trails in the Plan Area owned and/or operated by the County. The master plan addresses parks and trails currently owned or operated by the county, the provision of parks and trails to serve areas not otherwise served by local park and trail providers, and opportunities to collaborate and assist other regional providers to enhance the availability and recreational value of parks and trails for residents and visitors.

One of the proposed trails in the master plan map, within the project area, is one that travels near SR 49 and through the communities of Coloma and Lotus. The trail makes a loop from Henningsen Lotus Park up Lotus Road parallel to the South Fork American River and up to the bridge through the project area, and then travels on SR 49 to the Marshall Gold Discovery State Park. Although the details and feasibility of the proposed trail are not defined, it is a proposed trail on the county general plan. The project is not expected to prohibit the future development of the proposed trail and remains consistent with the plan because the project would not physically hinder the ability to connect the new trail.

Henningsen-Lotus Park Conceptual Master Plan, June 2014

The Henningsen Lotus Park Conceptual Master Plan, proposed to extend and rehabilitate the trail adjacent to the river and eventually forge a connection from the county park trail to the SE corner of the American River Bridge. This idea is still attainable in the future, but due to some physical restrictions on the environment and limited design information about the county park trail, the proposed bridge project could not accommodate a direct connection to the proposed county trail. Consultation with the County and a memorandum of agreement, encroachment permit, and maintenance agreement will be needed in the future for trail connection to the bridge. This project remains consistent with the plan.

California Streets and Highways Code 84.5: Consideration of Public Access for Recreation

The California Streets and Highways Code 84.5 states the following: "During the design hearing process relating to state highway projects that include the construction by the department of a new bridge across a navigable river, there shall be included full consideration of, and report on, the feasibility of providing a means of public access to the navigable river for public recreational purposes."

A feasibility study for public access is included in the Project Report for this project prepared by Caltrans Design. *(*the feasibility study is located in the Appendices)* During the feasibility study process, Caltrans met several times with the public and interested parties to define and scope public access to the American River by means of the Caltrans R/W. Several of the measures suggested by the public have been incorporated into the project. The project remains consistent with the CA Streets and Highways Code 84.5.

Complete Streets – Integrating the Transportation System, DD-64R1:

Complete Streets is defined as a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility. It is to ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of complete streets.

When all alternatives are compared, Alternatives 2 (Widen and Retrofit) and 3B (Replace Bridge to the South) would not fully support Complete Streets: Integrating

the Transportation System, Deputy Directive 64 R1(DD-64-R1). Alternative 2 would provide a widened and retrofitted bridge with pedestrian and bicycle accommodation only on the bridge structure. Alternative 3B would provide a new bridge structure with bicycle and pedestrian accommodations however, those would only be on the bridge structure and not continue down the highway through the community.

Alternative 3A, however, is consistent with Complete Streets, which includes continuous sidewalk on both sides of the bridge, room for bicycles, pedestrian opportunities, parking, transit, and ensures that travelers of all ages and abilities can move efficiently through a "complete streets" network through the heart of the community.

Avoidance, Minimization, and Mitigation Measures

To comply with the Streets and Highways Code 84.5, measures have been included in the project scope of work as determined during public outreach. Caltrans will implement the following measures:

- Maintain access to river – the legal right to cross State property for river access currently exists, and will be maintained after the project is constructed. The existing maintenance access road, also used by the public to access the river at the southwest corner of the bridge, is proposed to be paved to improve access for maintenance vehicles.

- Paved parking area (adjacent to SR49) – A total of 10 new parallel parking spaces are proposed on the south side of SR 49, west of the bridge. Additionally, a maintenance vehicle pullout is planned for the north side of SR 49, east of the bridge. When not in use by Caltrans maintenance crews, the public will be able to use it for parking.

- Informal parking – The existing informal parking on Lotus Road across from the Sierra Nevada House restaurant will not be changed as part of this project. Additionally, the project specifications will include a condition that the contractor cannot use the area for construction purposes (staging, storage, etc.). This parking area is outside of the project limits.

- Demarcate right of way lines – Signs will be posted to identify the limits of state right of way. This will help prevent trespassing onto private property and will provide guidance to river users accessing the area around bridge.

PARKS AND RECREATION

Affected Environment

El Dorado County provides many parks, trails, and recreational opportunities. The South Fork American River Bridge project area is located in an area noteworthy for recreational opportunities. Near the project area there are two parks, a community county park, and a state park. The county park is downstream from the bridge and the state park is upstream from the bridge.

East of the bridge is the beginning of Lotus Road. About a half mile south down this road is the Henningsen Lotus Community Park which occupies approximately 51 acres. The community park contains a pavilion, Little League baseball fields, softball fields, a regulation soccer field, a junior soccer field, picnic tables, group picnic area, restrooms, and paid parking. The soccer fields are of particular importance because they are the only public, non-school fields available for league soccer in an area that includes Placerville, Coloma-Lotus, and the Georgetown Divide. The soccer fields, pavilion, and ball fields are available for lease or private use. A few popular regional music festivals have annual events here as well, such as the annual American River Music Festival in late September. This community park, adjacent to the South Fork American River offers a boat launch area and beach.

Approximately one quarter of a mile traveling east on SR 49 from the South Fork American River Bridge, is the Marshall Gold Discovery Historic State Park. Acquired by the state in 1942 the park now features exhibits and historic structures including Marshall's Monument, a re-creation of Sutter's Mill, Marshall's Cabin, Pioneer Cemetery, a school house, an old blacksmith shop, and many other cabins and historic shops. Other facilities include a visitor's center and museum, an operating post-office, park headquarters, and the American River Conservancy's Nature Center. Group and individual picnic tables are available for day use and a boat launching area is available with seasonal paid parking during the summer months. People are allowed to park their vehicles there and access the river during the off-season. The South Fork American River flows from east to west across the northern part of the park. Boat put-in and take-out beaches are available for rafters and kayakers. Several paid parking lots are available throughout the park. Several trails traverse throughout the park including the Monument Trail, Monroe Ridge Trail, and Discovery Trail. The trails intermix with each other and make a 4-mile loop through the park, mostly traversing up on the ridge.

Environmental Consequences

The proposed project does not directly affect parks and recreation areas near the project vicinity. During construction, temporary impacts to all motorists could occur due to one-way reversible traffic control at the bridge site. This might include minor delays in getting across the bridge on SR 49. However, impacts during construction are temporary and at least one lane should be open for traffic at all times. Business and general operations should be able to continue during construction and after completion of the project.

On the west side of the S. F. American River Bridge, both north and south of the river are commercial rafting outfitters. They contain picnic tables, camping, and river put-ins and take-outs. There are other rafting operations upstream and downstream of the bridge as well. The rafting outfitter operations should not affected by the project. During construction of the bridge, operations of rafting outfitters, the community park, and the state park should remain the same.

The project will not use a 4(f) resource as defined by section 4(f) FHWA code 23 U.S.C. § 138(a) and 49 U.S.C. § 303(a). A section 4(f) property includes publicly owned parks, recreation areas, and wildlife or waterfowl refuges or any publicly or privately owned historic site listed or eligible for listing on the National Register of Historic Places. Although the project will be near some 4(f) resources, the project will avoid and not use a 4(f) resource during construction of the project or after completion of the project. Caltrans has also determined that there should be no indirect impacts to 4(f) resources as a result of this proposed project.

Avoidance, Minimization, and Mitigation Measures

Ensure the following is adhered to avoid potential impacts:

- During construction, a boat passage opening large enough to allow a boat or raft (or more than one raft) to pass, will be maintained in the water channel to allow for rafting and boating activity.

- During construction, the bridge will have one-way reversible traffic control so vehicles will be able to cross the bridge. Bicycles and pedestrians will be allowed to cross as well. No closures are anticipated.

- *See Traffic and Transportation / Pedestrians and Bicycles Section for more details.*

Community Impacts

COMMUNITY CHARACTER AND COHESION

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 as amended (NEPA), established that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 USC 4331(b)(2)). The Federal Highway Administration in its implementation of NEPA (23 USC109(h)) directs that final decisions regarding projects are to be made in the best interest of the public. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

The South Fork American River Bridge is the focal point of the study area. Extending to both sides of the bridge on SR 49 and upstream and downstream of the American River are two communities, Coloma and Lotus. The town of Coloma is located east and west of the bridge on SR 49 and Lotus is located south-east of the bridge following Lotus Road. The study area encompasses both towns, sharing a river popular for rafting, rolling hill terrain, recreation opportunities, and a mix of town amenities.

To the west of the bridge, a shopping center exists with amenities including: a coffee shop, post office, restaurants, a rafting photographer, etc. Other businesses further west of the highway include restaurants, whitewater rafting outfitters and campgrounds, cabins for rent, a feed and supply store, a saloon, cafe and dance hall, residential houses, a gas station, a dental office, and other businesses.

To the east of the bridge and immediately south is Lotus Road, which travels by the Henningsen Lotus Park, the El Dorado County Fire Station, more white water rafting outfitters, residential homes, some vineyards, and the Inn and Café. East of the bridge on SR 49 just under a mile down the road is the Marshall Gold Discovery State Historic Park. The park offers many amenities and attracts year round crowds (see Parks and Recreation section for more information). Continuing south on SR 49 and approximately 8.6 miles is Placerville, the county seat of El Dorado.

Environmental Consequences

Project Alternatives 2, 3A and 3B will have minimal, but temporary effects on the community cohesion of the area. During construction, temporary impacts could occur due to one-way reversible traffic control at the bridge site and may cause minor delays in getting across the South Fork American River Bridge. However, impacts during construction are temporary and a least one lane of traffic should be open at all times. Additionally, the cohesive quality of both towns should improve with the addition of the new or rehabilitated bridge. The addition of sidewalks and a shoulder for bicycling, where there was none before (east of the bridge in particular), will provide opportunities to cross the bridge into the adjacent town safely and in all modes of travel, encouraging cohesiveness.

With the No-Build alternative, the community's character and cohesion would remain as is. There would not be sidewalks or a shoulder on the bridge for a pedestrian or bicyclist to get safely across.

Avoidance, Minimization, and/or Mitigation Measures

Ensure the following is adhered to avoid potential impacts:

- During construction, a boat passage opening large enough to allow a boat or raft (or more than one raft) to pass, will be maintained in the water channel to allow for rafting and boating activity.

- During construction, the bridge will have one-way reversible traffic control so vehicles will be able to cross the bridge. Bicycles and pedestrians will be allowed to cross as well. No closures are anticipated.

- *See Traffic and Transportation / Pedestrians and Bicycles Section for more details.*

Relocation and Real Property Acquisitions

Regulatory Setting

Caltrans' Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code [USC] 2000d, et seq.). Please see Appendix C for a copy of Caltrans' Title VI Policy Statement.

Affected Environment

This project will not require the relocation of any properties, at this time. However, the project will require some right of way (R/W) acquisition.

Environmental Consequences

For Alternative 2, Seismic Retrofit with Widening, project right of way acquisition would be minimal. Work at the bridge abutments may require a few small slivers of R/W acquisition.

For Alternative 3A, New Bridge to the North, project work would require R/W acquisition. This alternative would include continuous sidewalks from the Sierra Nevada House restaurant, across the bridge and then continuing up to Marshall Drive. Under this alternative, an existing series of left turn lanes would be replaced with a continuous, two way left turn lane west of the bridge. Retaining walls would be needed if certain R/W acquisitions or steep slopes are not incorporated into the project. The Lotus Road intersection, as well as driveways and Little Road, would need to be reconstructed to meet current design standards.

For Alternative 3B, New Bridge on the Existing Alignment, project work would require minimal right of way acquisition. Work on the bridge approaches would be generally limited to widening and the blending work needed to connect the widened bridge and sidewalk to the existing roadway and foot paths. A retaining wall may be needed if a steep slope is not incorporated. An additional retaining wall and driveway realignment may be needed on Little Road and some roadway improvements at the

Lotus Road intersection may be completed. Minor right of way acquisition would be needed for this alternative.

Avoidance, Minimization, and/or Mitigation Measures

Because the proposed project will not require any property relocation, measures to avoid property relocation is a part of the project design. The project will require R/W property acquisition for all three alternatives. The Caltrans R/W staff will work with property owners for acquisition in the next phase of the project.

TRAFFIC AND TRANSPORTATION / PEDESTRIAN AND BICYCLE

Regulatory Setting

Caltrans' as assigned by the Federal Highway Association (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR Part 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects, including Transportation Enhancement Activities.

Affected Environment

Access, Circulation, and Parking

The existing environment and project area consists of the two small towns of Coloma and Lotus, nestled in the foothills with a river winding its way through the surrounding terrain. The economy of both towns is connected to the recreational

opportunities available because of the area's unique environment relationship with the river.

The layout of the land and recreational opportunities in the area provide a unique circulation movement in the area. Kayaking and river rafting is popular not only for locals but for tourists and travelers as well. The area is particularly unique because of the river "loop" which has become a popular route and is easy for beginner kayakers and rafters. The loop is a river route that starts from the State Park and follows the horseshoe curve of the river, taking advantage of its convenient put-ins and take-outs. It is unique in that the loop goes through three areas where the rafters can get in or out of the river, which includes the South Fork American River Bridge project area, the local Henningsen Lotus Park (HLP), and the State Park.

Some typical scenarios of recreation circulation, including walking and parking patterns during the peak summer season might include the following scenarios:

- People park at a paid lot at the State Park where they launch their river crafts, then float downstream and get out at the South Fork American River Bridge project area, then walk along SR 49 carrying their rafts to their cars parked at the State Park.

- People park at a paid lot at the State Park, launch their crafts, then go past the bridge and get out at the HLP, then they must walk their rafts along Lotus Road and then onto SR 49 to get to their vehicles at the State Park.

- People park at the South Fork American River Bridge project area at an informal pullout on the southeast side, launch their crafts, then go down to HLP and take the crafts out, then walk their crafts back up to the bridge near where their car is parked. Or they could float further downstream to another paid take-out spot, past HLP.

- People park on the west side of the bridge where the Coloma/Lotus retail, restaurant, coffee shop, post office, and commercial area is, then launch their crafts on the west side of the bank at the South Fork American River Bridge project area, then raft downstream towards HLP and take out there (or take out elsewhere downstream). They then carry their rafts back up Lotus Road to SR 49 and cross the bridge project area and back up to their car in the commercial center.

- People informally park at the northeast corner of the South Fork American River Bridge project area at the entrance to Little Road, occasionally blocking the road, then launch into the river, walking back up Lotus Road and then the highway.

Besides rafting and other water craft opportunities in the area, there are many camp grounds located along the path of the river. Fishing, hiking, backpacking, bicycling, and swimming are of the some other recreational opportunities in the area surrounding the project.

There are some private shuttles that cart the recreational river users up and down the highway, alleviating some of the traffic problems in the area.

Environmental Consequences

The implementation of this project will enhance and improve the bicycle and pedestrian facilities on the South Fork American River Bridge, by adding sidewalks and standard shoulders with room for bikes, and will improve connectivity between the two communities of Lotus and Coloma. The new or rehabilitated bridge will be built to ADA standards. In addition to the work on the bridge, Alternative 3A proposes continuous sidewalks throughout the highway corridor improving access and safety for pedestrians.

During construction, there will be minor impacts to traffic and transportation facilitates however those impacts will be temporary as they are occurring only during construction. Public transportation operations should be able to continue as they normally would, but may see a slight change in operation time during construction.

With the No-Build alternative, the current situation would remain. There would not be sidewalks or a shoulder on the bridge for a pedestrian or bicyclist to safely cross and the access, circulation, and parking situation would remain the same.

Avoidance, Minimization, and/or Mitigation Measures

Measures to minimize impacts during construction include:

- One-way reversible traffic control in accordance with Standard Plan sheet T13 may be allowed at all times.

- The maximum length of any lane closure shall be limited to 0.8 mile.

- A minimum of one paved traffic lane not less than 11 feet wide shall be open for use by public traffic at all times, and two lanes shall remain open when construction operations are not actively in progress.

- A minimum of 4 foot shoulder shall remain open at all times for pedestrian and bicycle use.

- The use of K-rail is recommended to separate the work zone from the public traffic.

- Work behind k-rail may be performed at any time.

- Consider using a temporary traffic signal to control traffic when the bridge is reduced to one lane open.

- Advance flaggers may be needed in areas where there is inadequate approaching sight.

- When bridge rail is removed, K-rail shall be secured in place prior to allowing traffic on the bridge.

- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Special Days, designated legal holidays and the day preceding designated legal holidays; and when construction operations are not actively in progress.

- Access to driveways and cross streets must be maintained during construction, in accordance with traffic control standard plans or traffic handling provided in the contract plans.

- Pedestrian access must be maintained during construction, with at least one sidewalk open on one side of the roadway at all times. Additional signs will be required to detour pedestrians when sidewalks are closed for contract work.

- Bicycle traffic must be maintained during construction. Additional signs and striping will be required to direct bicycle traffic when bikeways are closed for contract work.

- Portable changeable message signs will be required in direction of traffic during construction for each lane, shoulder, and bridge closure.

- Work at this location may require the assistance of COZEEP, but probably not a full time presence.

- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP estimate.

- Lane closure charts will have to be developed prior to P&E.

VISUAL/AESTHETICS

Regulatory Setting

The National Environmental Policy Act of 1969 as amended (NEPA) establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

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

Affected Environment

A Visual Impact Assessment (VIA) was prepared by a Caltrans Landscape Architect in July 2014. The project location and setting provides for the context of determining the type of changes to the existing visual environment.

The town(s) of Lotus and Coloma lie within the Coloma Valley, which is surrounded by the Sierra Foothills and its center is the South Fork of the American River. During the spring and summer months this area becomes congested with visitors who are attracted to the recreational activities that are offered by the river and beyond. The locale has become popular for its white water rapids. Although the Historical Town of Coloma draws visitors year round, the cooler season brings a quieter and less congested community. The visual setting of the area is rural in character. The highway winds through hilly terrain and it crosses over the South Fork of the American River.

The population affected by this project is comprised of viewers. Viewers are people whose views of the landscape may be altered by the proposed project – because either the landscape itself has changed or their perception of the landscape has changed. Two variables determine the extent of visual impacts. First, there is the response that viewers have to changes in their visual environment, and second, there is the change to the visual resources themselves.

There are two types of viewer groups for highway projects: highway neighbors and highway users. Each viewer group has their own particular level of viewer exposure and viewer sensitivity, resulting in distinct and predictable visual concerns for each group, which help to foresee their responses to visual change. Highway neighbors can see views of the road and bridge are from people who live within close proximity to the site and people who are visiting that area or using the river for recreational purposes. Most of these viewers are folks living within the residential, commercial/business, and recreational sites that are within close proximity to the bridge. Highway users are people who have views from the road. The users of this road consist of local and recreational traffic, tourists, commuters and business owners, and pedestrians and bicyclists as well. The observations from the bridge consist of views of the South Fork American River and its surrounding landscape of deciduous and riparian trees. The views from the road as one approaches the bridge from the west side is heavily vegetated on both sides of the corridor and has a commercial/business strip along the corridor prior to approaching the bridge. Traveling from the east appears less developed as one travels from Marshal Gold Discovery State Park. Both sides of the bridge have dense vegetation in the areas that have not been developed. The scenery is pleasant.

Environmental Consequences

The following section describes the visual appearance of the project and how that would affect the setting and view for each affected viewer group.

No Build

The No-Build alternative would have no impact.

Alternative 2

Alternative 2 would seismically retrofit the existing bridge structure, widen for standard size lanes and shoulders, and provide for sidewalks and concrete barriers. These changes would be noticeable. The approaches to the bridge would be widened

to match the bridge deck and to the existing roadway and footpaths. The profile of the retrofitted bridge would be wider; therefore would be noticeable of its new changes. The overall look of the corridor on both sides of the bridge would not impact the visual integrity of the community and its surrounding area.

Overall this alternative would have the least visual impacts. The visual look would be altered due to an increase in the pier's width and slight increase in the bridge deck's width of the retrofitted structure. After the roadway ties into the new width of the structure the existing corridor would maintain its current look; therefore there would be no visual impact to the highway and its surrounding area.

Alternative 3A

Alternative 3A would construct a new bridge, requiring the roadway's alignment to shift to the north and be built one half at a time (also called half-width construction). The new bridge would be wider than the current bridge. Sidewalks would be provided on both sides of the bridge and due to the shift to the north the roadway will also shift in order to connect with the new bridge. The roadway would tie back into the existing roadway near the Marshall Road intersection and the eastern section would match up with the roadway at Marshall Gold Discovery State Park. This proposed alternative would construct continual sidewalks on both sides of the road west of the new bridge and a short segment to the east. An existing series of left turn pockets and median islands would be replaced and altered in accordance with Traffic Operations recommendations. This alternative would have the most noteworthy changes in the visual setting of the area. The installation of sidewalks and moving the centerline of the roadway to the north would alter the look of the community. The shift in the roadway would require removing trees and vegetation. These changes along the roadway would change the look of the community, but these improvements would provide an upgrade in American Disability Act (ADA) standards and create a more modern look to the community. During the design phase of the project consideration should be given to context sensitive solutions for introducing the necessary ADA standards.

Alternative 3A would have the largest visual impact due to the shift in the roadways alignment and installation of sidewalks. This alternative would require a larger amount of ground disturbance and tree removal. The installation of curbs and sidewalks would alter the look of the community, with a look more urban in character.

Alternative 3B

Alternative 3B would build a new bridge with three stages of construction. The bridge centerline would shift approximately two feet to the south. The final footprint of this bridge would be wider that the other two build alternatives, in that it would leave a 13’2” median on the new bridge. This is due to the staged construction to allow for the bridge to follow the existing alignment. The construction on the bridge approaches would be generally limited to widening and work needed to connect the widened bridge and sidewalk to the existing roadway and foot paths. The wider width of this bridge would be noticeable and change the profile and look of the current bridge. This would be quite obvious to the local community. The width of the new bridge for this alternative would be noticeably wider than the current bridge; however the roadway would not change its alignment. Therefore, the corridor on both sides of the bridge would not be altered due to fewer disturbances to the trees and vegetation. Curbs and sidewalks would not be installed and the majority of the current look of the streetscape would be left in its present condition. Alternative 3B would have less of a visual impact to the corridor on both sides of the bridge as compared to Alternative 3A. The corridor extending beyond the bridge would maintain its present look. In summary, the new bridge would be apparent and wider but, the roadway would remain the same.

All Build Alternatives

All of the build alternatives may require retaining walls at various locations to reduce the need for steep cut slopes; therefore reducing ground disturbance and keeping more vegetation and trees intact. The implementation of aesthetic features and integral concrete coloring of the walls would help reduce any glare.

Temporary Construction Impacts

All of the alternatives except for the no build will have temporary visual impacts caused by construction. The construction of the bridge will be visually obvious as false work is built in order to accomplish the bridge construction. There will also be staging areas on the south sides of the bridge. Other inconveniences will include dust from the project and trucks hauling materials. The duration of construction, however will be temporary.

Cumulative Visual Impacts

Cumulative impacts are those resulting from past, present, and reasonably foreseeable future actions, combined with the potential visual impacts of this project. The cumulative impacts caused by this project will be most prevalent with the development of Alternative 3A due to the installation of sidewalks and realignment of the road. This could set a precedence of creating a more developed community. The visual impacts will be less than significant with the implementation of the minimization measures described in the following section.

Avoidance, Minimization, and Mitigation Measures

Avoidance or minimization measures have been identified and can lessen visual impacts caused by the project. In addition, the inclusion of aesthetic features in the project design previously discussed can help generate public acceptance of a project. This section described additional avoidance and/or minimization to address specific visual impacts. These will be designed and implemented with concurrence of the Caltrans Landscape Architect.

The following measures to avoid or minimize visual impacts will be incorporated into the project:

- All areas disturbed due to all construction activities, including staging locations and access roads shall be restored to its pre-construction condition upon completion of the project. This can be accomplished by loosening and re-contouring the area's soil before applying erosion control (such as hydro-seed with a native seed mix and erosion control blankets).

- Minimize the removal of and avoid where feasible established trees and vegetation. Where it is possible to save and preserve existing trees (of significant size and maturity), care and caution should be implemented during the construction phase. Environmental Sensitive Area (ESA) fencing shall be installed to demarcate areas where vegetation is being preserved and root systems of trees shall be protected.

- All disturbed areas during each construction season shall utilize BMPs which will include temporary erosion control at the end of each construction season.

- Aesthetic treatments used on this project should consider using similar features and colors that will be consistent with the current project being built at the Marshall Gold Discovery State Historic Park. These elements consist of

colored stamped concrete. This work should be completed under the direction of the District's Landscape Architect unit.

- The retaining wall(s), if constructed, shall incorporate designing and aesthetic features into the walls, this will be determined during the design phase; additionally, the wall shall be colored or painted with earthen hues to blend with the natural surrounding environment. This will help reduce glare as well.

- The new bridge alternative should consider a "see through" railing constructed as part of the bridge's deck. This will allow the traveling public to view the river and surrounding landscape.

- Trees and shrubs removed as part of a riparian zone will be replaced as part of the required mitigation *(see Biology Section)*. The biologist shall mitigate to ensure the placement of the replanted trees and shrubs for riparian habitat. This will also meet the recommendation for minimizing visual impacts.

CULTURAL RESOURCES

Regulatory Setting

The term "cultural resources" as used in this document refers to all "built environment" resources (structures, bridges, railroads, water conveyance systems, etc.), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966 , as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation [36 Code of Federal Regulations (CFR) 800]. On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA implements the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities

to Caltrans. The FHWA's responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

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

Affected Environment

The August 2014 Historic Property Survey Report (HPSR) and Archaeology Survey Report (ASR) was completed by qualified cultural resource personnel at Caltrans. An intensive archaeological inventory of the project's Area of Potential Effects (APE) was conducted between April 2013 and July 2014. The inventory effort consisted of a pre-field literature and records review, consultation with the Native American community, as well as local historic preservation organizations, and an intensive pedestrian field survey by professionally qualified archaeologists.

As a result of cultural resource inventory, 15 cultural resources were identified near the project area, but none within the APE. Most of those cultural resources are related to historic mining activities. No cultural resources were encountered during the pedestrian survey(s) as well. Research indicates there was an 1800's diversion tunnel that once existed underneath a portion of the project area. However, it has collapsed or been filled in with no physical evidence remaining. The tunnel, if in existence, was below the vertical APE of the original bridge construction and would therefore be below the current project's APE. Given this, there is no potential to affect this resource if any portion is still intact. No physical evidence remains that any part of the tunnel is intact or retains any integrity and the exact location or depth below surface cannot be confirmed.

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

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public

Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). At this time, the person who discovers any remains will contact Caltrans District 03 Environmental staff so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Environmental Consequences

Alternatives 2, 3A, and 3B are not likely to impact the cultural resources in the area. Most all of the identified cultural resources within the vicinity of the bridge are outside of the project impact area. Any remains of the 1800's diversion tunnel is most likely out of reach of the new bridge's footprint and construction area.

The project will not use a section 4(f) historic resource.

Avoidance, Minimization, and Mitigation Measures

It is the Caltrans policy to avoid cultural resources whenever feasible. Further investigation of the resources located within the APE may be necessary if they cannot be avoided by the proposed project. Additional archeological surveys will be necessary if project limits are expanded to include areas outside the current APE limits. In the event that buried archeological materials are encountered during construction, Stipulation XV will be followed. Post Review Discoveries, Section B.1.-3 in the January 2004 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA).*

Physical Environment

HYDROLOGY AND FLOODPLAIN

Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as "the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the base floodplain."

Affected Environment

A Floodplain Hydraulic Study was completed for this project in March 2014. Federal Emergency Management Agency (FEMA) maps dated September 6, 2008 indicated that the flood zone within the project area is Zone A. Zone A is defined as "No base flood elevations determined." Typically the 100-year base flood surface elevation needs to be determined in order to evaluate the impacts of the proposed alternatives; however, a USGS publication, Floods in Northern California, January 1997, identified the 1997 flood event and its associated discharge as the "flood of record". This discharge (90,000 cubic feet per second) was incorporated into the HEC-RAS modeling and then used to identify potential impacts of the various alternatives for this project.

Environmental Consequences

During substantial events, flooding may occur beyond the existing floodplain such as the 1997 flood event. The project is expected to have a less than significant impact on the floodplain. Each of the proposed alternatives was evaluated for impacts on river velocities, water surface elevations and debris passage and each was determined to have a less than significant impact in these areas.

Avoidance, Minimization, and Mitigation Measures

The following measures are recommended for any alternative in order to minimize impacts to the floodplain:

- The proposed bridge should have the same number of piers (or less) as the existing bridge. In other words, obstructions to flow in terms of area facing flows should not be greater than the existing bridge.

- The waterway area using either the 100-year event or the "flood of record" water surface elevation as a maximum elevation under the bridge should not be reduced below existing available waterway area.

WATER QUALITY AND STORMWATER RUNOFF

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source[1] unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.

- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).

- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).

[1] A point source is any discrete conveyance such as a pipe or a man-made ditch.

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

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

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of the USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's Section 404 (b)(1) Guidelines (U.S. EPA Code of Federal Regulations [CFR] 40 Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent[2] standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

[2] The U.S. EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

State Requirements: Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined, and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

- **National Pollutant Discharge Elimination System (NPDES) Program**

  Municipal Separate Storm Sewer Systems (MS4)

  Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water." The SWRCB has identified Caltrans as an owner/operator of an MS4 under federal regulations. Caltrans' MS4 permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

  Caltrans' MS4 Permit (Order No. 2012-0011-DWQ) was adopted on September 19, 2012 and became effective on July 1, 2013. The permit has three basic requirements:

  1. Caltrans must comply with the requirements of the Construction General Permit (see below);

  2. Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and

  3. Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the Maximum Extent Practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

  To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges.

It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices (BMPs). The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with the Department's Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than one acre.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with state

water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Affected Environment

Receiving Waters and Total Maximum Daily Load:

A Water Quality Assessment (WQA) was completed in October 2013 by qualified Caltrans National Pollutant Discharge Elimination System (NPDES) staff and involved (in part) the use of Caltrans' Water Quality Planning Tool (WQPT) and the State Water Resources Control Board Impaired Water Bodies Map to identify receiving waters close to the project area and to evaluate potential receiving water risk due to proposed construction operations. Using these tools, the receiving water nearest to the project is the South Fork of the American River (below Slab Creek Reservoir to Folsom Lake), located within Hydrologic Sub-Area (HSA) No. 514.32. The South Fork of the American River to Folsom Lake is a 303(d) listed limited segment water body and has Total Maximum Daily Load (TMDL) for the pollutant Mercury. However, this TMDL is not anticipated to be approved by the EPA until 2021, and the source for the pollutant is identified as being from resource extraction and not a pollutant that Caltrans is responsible for addressing.

Beneficial Uses:

The following beneficial uses are the most applicable for the water bodies in or near HSA 514.32: AGR, COLD, MUN, POW, REC1, REC2, WARM, and WILD. The Central Valley Regional Water Quality Control Board (Regional Board) is charged with protecting all these beneficial uses from pollution and nuisance that may occur as a result of waste discharges in the region. A detailed description and additional information related to the beneficial uses identified, and their associated water quality objectives, can be found in the Regional Board Basin Plan.

Municipal Separate Storm Sewer System Phase I or II Permit:

The proposed project does not appear to be within a County or City Municipal Separate Storm Sewer System (MS4) Phase I or II permitted area; however, all projects within Caltrans' right-of-way (ROW) must adhere to the requirements of the Caltrans MS4 Permit (see Avoidance, Minimization, and/or Mitigation Measures section below).

Drinking Water Reservoirs:

No drinking water reservoirs and/or recharge facilities were identified in the project area, near Caltrans's owned right-of-way.

High Risk Receiving Watershed:

High Risk Receiving Watersheds are either listed (303(d)) as being impaired for sediment/siltation or turbidity, or have an EPA approved sediment related TMDL, or have existing beneficial uses of SPAWN, MIG, and COLD (according to the most recent Regional Board Basin Plan). Using the WQPT, the proposed project does not appear to be within the boundaries that designate a "High Risk Receiving Watershed" area.

Environmental Consequences

Analysis of the overall project watershed indicates that the receiving water risk is relatively low. Due to the nature of the work described in the associated environmental documents and project report, it is not expected that construction operations will impact water quality. The proper application and appropriate use of construction site best management practices (BMP's) is anticipated and should reduce the potential for environmental impacts.

Avoidance, Minimization, and/or Mitigation Measures

The following actions are recommended, in order to protect receiving water bodies from potential pollution arising from construction activities and/or operations related to this project:

1. If the temporary storage of equipment and material on State property is permitted by the Engineer, all soil disturbance created within the contract limits or at the Contractor's secured area(s), shall be accounted for in the total disturbed soil area (DSA) estimate.

2. Caltrans' Storm Water Management Plan (SWMP), Project Planning and Design Guide (PPDG) Section 4, and Evaluation Documentation Form (EDF) provide detailed guidance in determining if a specific project requires the consideration of permanent Treatment BMPs. Line Item BMPs may be required during the Plans Specifications and Estimate (PS&E) phase of the project.

3. The project shall adhere to the conditions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) MS4 Permit (Permit), CAS No. 000003 Order No. 2012-0011-DWQ. As necessary, consult with your NPDES coordinator for additional Permit requirements and guidance.

4. Adherence to the compliance requirements of the NPDES General Permit CAS No. 000002 (Order No. 2010-0014-DWQ) for General Construction Activities is required if the DSA is equal to or greater than 1.0 acre. If the total DSA is less than 1.0 acre, a Caltrans approved Water Pollution Control Plan (WPCP) will be required, which specifies the level of temporary pollution control measures for the project.

5. Adherence to the following is recommended to prevent receiving water pollution as a result of construction activities and/or operations from this project:

    a. Follow all applicable guidelines and requirements in the 2010 Caltrans Standard Specifications (2010 CSS), Section 13, regarding water pollution control and general specifications for preventing, controlling, and abating water pollution in streams, waterways, and other bodies of water.

    b. Consideration should be given to 2010 CSS, Section 13-4 (Job Site Management), to control potential sources of water pollution before it encounters any storm water system or watercourse. It requires the Contractor to control material pollution, manage waste, and non-storm water at the construction site.

    c. The Contractor prepared WPCP or SWPPP (whichever is applicable for the project) shall incorporate appropriate Temporary Construction Site BMPs to implement effective handling, storage, use and disposal practices during construction activities.

d. Shoulder backing areas should be stabilized by Temporary Construction Site BMPs, or rolled and compacted in place, by the end of each day and prior to the onset of any precipitation.

e. Existing drainage facilities should be identified and protected by the application of appropriate Construction Site BMPs.

f. Attention should be given to 2010 CSS, Section 13-4.03D(3), Concrete Waste, when pipe lining operations involve annular space grouting.

g. Attention should be given to 2010 CSS, Section 13-4.01B, Submittals, before dewatering operations commence.

6. Refer to the State Water Resources Control Board, Water Quality Permit Order No. 2003-0003-DWQ, for specific requirements relating to low threat discharges to land, where and when applicable, for proposed dewatering operations. A waiver by the Central Valley Regional Water Quality Control Board (Regional Board) can be utilized if the following conditions are met for low threat discharges to land (Anne Olson, 10/24/12):

    1) Waiver (No Report of Waste Discharge (RWD) / No fee): no known existing groundwater pollution; less than three weeks duration; and less than 10,000 gpd.

    2) Waiver (RWD, fee, and Notice of Applicability (NOA) required): no known existing groundwater pollution; less than three weeks duration; and up to 100,000 gpd (we want to make sure that they have enough land committed and good BMPs to contain the water).

    3) Low Threat General Waste Discharge Requirements (RWD, fee and NOA required): almost everything else.

7. Refer to the Regional Board Permit General Order No. R5-2008-0081, for specific requirements relating to low threat discharges to surface water, where and when applicable, and for proposed dewatering operations. Discharges covered by this General Order, are either 4 months less in duration, or have an average dry weather flow of less than 0.25 million gallons per day.

8. Batch plants and/or rock crushing activities within Caltrans R/W will require the preparation of an Air Space Lease Agreement prior to mobilization. The Lessee

shall obtain an Industrial Strom Water General Permit Order 97-03-DWQ (General Industrial Permit) from the State Water Resource Control Board (SWRCB). The Lessee shall submit a copy of the Notice of Intent (NOI) to comply with the terms of the General Industrial Permit, a copy of the receipt letter with the Waste Discharge Identification (WDID) Number from the SWRCB, an approved Storm Water Pollution Prevention Plan (SWPPP), and a monitoring plan when filing for a Caltrans Encroachment Permit. The Lessee shall submit any amendments to the SWPPP, copies of any sampling/monitoring results, a copy of the annual report, and any reporting requirements covered by the General Industrial Permit. Batch plant or rock crushing activities outside of Caltrans ROW will require additional coordination.

9. Caltrans NPDES Staff may participate in early project design consultation with the Regional Board if the project entails one or more acres of DSA.

Biological Environment

NATURAL COMMUNITIES

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section. Wetlands and other waters are also discussed below.

Habitats and natural communities are considered to be of special concern based on (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status plants or animals occurring on site. Valley oak woodland and valley foothill riparian were found to be present within the Biological Study Area (BSA).

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff. The natural communities that occur within the vicinity of the Biological Study Area (BSA) are described below:

Valley Oak Woodland –

Oak woodlands are a protected natural community that occurs near the BSA. In accordance with Senate Concurrence No. 17, oak woodland is defined as a five-acre circular area containing five or more oak trees per acre. The oak species protected under this resolution include Blue, Engelman, Valley, and Coast Live Oak. There are Valley Oak woodlands surrounding the project area and the proposed highway widening may have direct and indirect impacts to oak woodlands, in general. Valley oak woodland habitat type does not occur within the existing or proposed bridge footprint. The type and area of impacts varies among the three viable project alternatives.

The tree canopy layer consists of valley oaks (Quercus lobata) interspersed with California sycamore (Platanus racemosa), Northern California black walnut (Juglans hindsii), interior live oak (Quercus wislizeni), box-elder (Acer negundo), and Foothill Pine (Pinus sabiniana). The shrub understory consists of poison-oak (Toxicodendron diversilobum), California wild grape (Vitis californica), toyon (Heteromeles arbutifolia), California coffeeberry (Rhamnus californica), and Himalayan blackberry (Rubus armeniacus). Various sorts of wild oats (Avena fatua), brome (Bromus sp.), barley (Hordeum sp.), ryegrass (Lolium sp.), and needlegrass (Achnatherum sp.) make up the ground cover. These woodlands provide food and cover for many species of wildlife.

Valley Foothill Riparian –

Riparian habitat is a sensitive natural community that is important to the ecological function of the stream system. It provides bank stability, wildlife habitat, nutrient cycling, and lower water temperatures. Throughout the BSA this habitat type is highly disturbed due to the recreation activities in the area.

In the project BSA, this habitat type is located along the banks of the river and on the gravel bar that covers most of the proposed bridge footprint. The tree canopy layer consists of cottonwood (Populus spp.), California sycamore, and valley oak. Subcanopy trees include white alder (Alnus rhombifolia), box-elder (Acer negundo),

foothill pine (Pinus sabiniana), interior live oak, and Oregon ash (Fraxinus latifolia). Typical understory shrub layer plants include poison-oak, California wild grape, wild rose (Eriogonum elongatum), California coffeeberry, button bush (Cephalanthus occidentialis), Himalayan blackberry and willows (Salix spp.). The herbaceous layer consists of sedges (Carex spp.), rushes (Juncus spp.), miner's lettuce (Claytonia perfoliata), Douglas' sagewort (Artemisia douglasiana), poison-hemlock (Conium maculatum), and hoary nettle (Urtica dioica ssp.). This habitat type provides food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for an abundance of wildlife.

Environmental Consequences

Valley Oak Woodland –

All three alternatives could indirectly and directly impact this habitat type.

The cut and fill areas proposed to widen the highway in Alternative 3A would require removal of approximately 35 oak trees throughout the BSA. In Alternatives 2 and 3B tree removal associated with the bridge construction may result in the removal of approximately 15 oak trees throughout the BSA. Once a preferred alternative is chosen, additional surveys will be conducted to determine the species, diameter, and more approximate number of oak trees that will be impacted by the project.

The removal of oak trees as a result of the proposed project is not likely to have a cumulative impact to the continued health of oak woodlands.

Valley Foothill Riparian –

The proposed project will result in permanent and direct impacts to riparian vegetation for all alternatives and on both sides of the river. Temporary and indirect impacts to riparian vegetation may result from equipment movement under the bridge mainly along the gravel bar and a smaller riparian area on the other side of the river.

> Alt 2: Potential permanent riparian habitat impacts are approximately 0.04 acres and approximately 20 linear feet (LF).
>
> Alt 3A: Potential permanent riparian habitat impacts are approximately 0.04 acres and approximately 25 LF.
>
> Alt 3B: Potential permanent riparian habitat impacts are approximately 0.05 acres and approximately 39 LF.

Alternatives 2, 3A, and 3B each have the potential to temporarily impact approximately 0.5 acres and approximately 150 LF of riparian habitat.

The removal of riparian vegetation as a result of the proposed project is not likely to have a cumulative impact to the continued health of the South Fork American River and associated riparian habitat.

Avoidance, Minimization, and/or Mitigation Measures

In order to avoid and minimize potential impacts to the sensitive natural communities, the removal of native vegetation, including oak trees and riparian habitat, will be confined to the minimal area necessary to facilitate construction activities. All disturbed soil areas will be restored to their existing condition, to the extent possible.

Measures that will be implemented to avoid or minimize impacts to the natural communities of the project area include ESA fencing, biological monitoring, and pre-construction biological surveys.

Compensatory Mitigation

Valley Foothill Riparian: For Alternatives 2, 3A, and 3B compensatory mitigation is likely to be required for permanent impacts to riparian habitat. Types of compensation that will be considered for the project include but are not limited to bank purchase, in-lieu fees, endowments, and project specific restoration.

WETLANDS AND OTHER WATERS

Regulatory Setting

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

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the United States Environmental Protection Agency (U.S. EPA).

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

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

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

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB), and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development

Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for additional details.

Affected Environment

The South Fork American River Bridge is a jurisdictional “other waters of the U.S”. The river flows from its headwaters in the Crystal Basin near Desolation Wilderness westward through the Sierra Nevada foothills to its confluence at Folsom Lake reservoir. Multiple dams located downriver, including Nimbus and Folsom Dams, have impeded the movement of native fish through the project area. There are no tributaries to the river located in the BSA.

The habitat within the flowing waters of the South Fork American River is characterized as riverine. Although the river is relatively flat, it has a fast flow that consists of glide, run, and riffles. Backwater pooled areas are present upstream and downstream of the project area. The substrate consists of small and large cobbles and boulders, including large cobble bars. No emergent vegetation is growing in the river within the BSA. The riverbanks are highly compacted with low to steep slopes and sparse riparian vegetation. There are no protected fish species in this reach of the river due to the multiple dams located downriver. Maintaining the health of the river is important to the wildlife that depends on it for breeding, feeding, and shelter, and

just as important to the people that use it for recreation and the multitude of other human need and uses.

There are no wetlands within the BSA.

Environmental Consequences

The project will have minor impacts to waters. Most impacts are due to dewatering to create a workspace separate from the live channel.

It is anticipated that Alternatives 3A and 3B will have temporary impacts to waters because activities during construction needed to remove the existing piers, such as dewatering, gaining access to the existing piers, and removing the piers is required. If fill is required during demolition of existing bridge, that area will be quantified and mitigated for. The piers on the new bridge design are not proposed to be located in the flowing waters of the river.

No-Build: No permanent or temporary impacts to waters

Alternative 2: Temporary impacts will be limited to dewatering and are not expected to exceed 0.25 acres or 150 linear feet. Potential permanent impacts below the ordinary high water mark (OHWM) of the other waters of the U.S. are approximately 0.0005 acres and approximately 25 linear feet (LF). The permanent impacts are due to the extension of the existing pier which is located in the active channel and below the ordinary high water mark.

Alternative 3A: Temporary impacts will be limited to dewatering during removal of the old piers and is not expected to exceed 0.25 acres or 150 linear feet. Potential permanent impacts to other waters of the U.S would only occur if the removal of the existing piers requires fill below the OHWM. This is not expected to be required.

Alternative 3B: Temporary impacts will be limited to dewatering during removal of the old piers and is not expected to exceed 0.25 acres or 150 linear feet. Potential permanent impacts to other waters of the U.S would only occur if the removal of the existing piers requires fill below the OHWM. This is not expected to be required.

The proposed in-water work for each alternative is not likely to have a cumulative impact to the continued health of the South Fork American River.

Avoidance, Minimization, and/or Mitigation Measures

Alternative 2 may require mitigation for permanent impacts for fill within other waters of the U.S. Types of compensation that will be considered for the project include but are not limited to bank credit purchase, in-lieu fees, endowments, and project specific restoration. Compensatory mitigation is not anticipated for the No-Build alternative and Alternatives 3A and 3B.

PLANT SPECIES

Regulatory Setting

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

This section of the document discusses all the other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

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

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff. No habitat for special status plants was found within the BSA. Surveys conducted during bloom periods further confirmed that no special status plants occur within the project limits.

Environmental Consequences

Because there were no special status plants found within the BSA and due to lack of habitat, there are no environmental consequences to special status plants for the No-Build or any of the build alternatives.

Avoidance, Minimization, and/or Mitigation Measures

Removal of native vegetation shall be confined to the minimal area necessary to facilitate construction activities. Re-vegetation measures shall include erosion control seeding containing native species specific to the area. The seed mix will be weed free and certified to include no invasive species. More information can be found in the Invasive Species section.

ANIMAL SPECIES

Regulatory Setting

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

Federal laws and regulations relevant to wildlife include the following:

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

State laws and regulations relevant to wildlife include the following:

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

- Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff. Animals are considered to be of special concern based on (1) federal, State, or local laws regulating their development; (2) limited distribution; and/or (3) the habitat requirements of special-status animals occurring on site. There were no special status animals found within the BSA; however, there is a slight potential that the following species, foothill yellow-legged frog, California red-legged frog, and western pond turtle, may pass through the riparian and riverine habitats within the project area during construction. The California red-legged frog is a federally listed threatened species and state species of concern and will be discussed in the "Threatened and Endangered" Section. This section will also focus on the Migratory Bird Treaty Act (MBTA) and touch on roosting bats.

Foothill yellow-legged frog –

The foothill yellow-legged frog is a federal candidate for listing and a state species of special concern. The species requires slow moving water in streams and rivers with rocky substrate and open sunny banks in forests, chaparral, and woodlands. The nearest known occurrence for this species is approximately 1.5 miles away. Due to the recreation uses in the BSA, the patchy riparian habitat is only marginally suitable for the frog and it is not likely that the species will be present. There were no foothill yellow-legged frogs found during amphibian surveys in the BSA.

Western pond turtle –

Western pond turtle is a state species of concern. The species is thoroughly aquatic and found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches that have an abundance of vegetation and either a rocky or muddy bottom. During reptile surveys there were no turtles observed in the BSA and due to the extensive disturbance in the area, none are expected to occupy the area. To further protect any individuals that may be moving through the project limits, this species will be surveyed for, during pre-construction surveys.

Migratory Birds –

Cliff swallows *(Petrochelidon pyrrhonota)* were observed nesting on the bridge during bird surveys. There were no birds observed nesting in the trees and vegetation

within the BSA. After the preferred alternative is chosen, additional surveys will be conducted on trees and vegetation proposed for removal. Because conditions can change from year to year, pre-construction surveys will be conducted.

Roosting Bats –

Bat surveys were completed in September 2013 and in April 2014, by qualified staff. Mexican free-tailed bats were visually observed roosting in the bridge abutments and joints. During the Sonot-Bat surveys, the following species were recorded feeding in the area, Mexican free-tailed bats, Yuma myotis, hoary bat, silver haired, and Townsend's big-eared bat. There is a slight potential for Yuma myotis to be roosting on the bridge, however, the other three bat species are highly unlikely to be roosting on the bridge due to habitat requirements that are not present.

Environmental Consequences

Foothill yellow-legged frog –

The proposed project would have temporary and permanent impacts to marginally suitable riparian habitat that may be used as dispersal habitat by foothill yellow-legged frog. However, the project will not result in direct and indirect impacts to the species. The proposed project will not result in cumulative impact to the continued existence of the foothill legged frog or its habitat.

Western pond turtle –

The in-water activities of the proposed project may directly or indirectly impact turtles in the unlikely event that they inhabit the flowing water within the BSA.

The No-Build alternative would have no impact on the species.

Alternative 2 is expected to have the most impact as it would result in direct construction (via widening of the piers) in the live channel and will have permanent removal of riverine habitat.

Alternatives 3A and 3B may temporarily displace individuals during dewatering activities for the removal of the old structure out of the active channel. The removal of the structure out of the live channel for these two alternatives could be considered of a net gain of riverine habitat.

The proposed project will not result in cumulative impacts to the continued existence of the Western pond turtle or its habitat.

Migratory Birds –

All build alternatives propose work on the bridge structure which is also nesting habitat for cliff swallows. Construction activities will result in a temporary loss of nesting habitat. Following construction, the birds will be able to re-colonize the bridge.

In addition to loss of nesting habitat on the bridge, migratory birds may be affected due to vegetation removal. Alternative 2 and 3B propose work that would result in permanent impacts to vegetation and trees surrounding the bridge. Alternative 3A may have permanent impacts to a number of trees alongside the highway as well as vegetation and trees surrounding the bridge. There were no other migratory birds seen using the project area during field surveys; therefore, the proposed project is not expected to result in an effect to migratory birds due to removal of vegetation. The proposed project will not result in cumulative impacts to the continued existence of migratory and non-game birds, their occupied nests or habitats.

Roosting Bats –

All alternatives have potential to impact bat species roosting on the bridge as a result of the proposed widening and bridge replacement. The proposed project will not result in cumulative impacts to the continued existence of any bat species or their habitats.

Avoidance, Minimization, and/or Mitigation Measures

Foothill yellow-legged frog –

- Preconstruction amphibian surveys will be completed by a qualified biologist in accordance with the CDFW survey methods for the species.
- After preconstruction surveys are complete, riparian vegetation will be removed by clear and grub method through the work area, which will remove all potential dispersal habitat for the frog during construction.
- A qualified biologist will be monitoring the BSA as needed throughout construction.

- No compensatory mitigation is required.

Western pond turtle –

Preconstruction surveys for reptiles will be conducted by a qualified biologist and, in accordance with CDFW survey methods for the species, a qualified biologist will be monitoring the BSA as needed throughout construction. During dewatering activities the work will be designated and conducted in a manner that reduces the potential for impacting the turtles.

Migratory Birds –

To avoid impacts to migratory birds nesting on the bridge, the nests shall be removed outside of the nesting period that is from September 1 to March 31.

If construction activities occur during the nesting season for migratory birds, February through August 31, a qualified biologist will survey the project area no more than one week prior to start of construction and prior to vegetation and tree removal. Caltrans may implement preconstruction avoidance measures, like exclusion methods, to prevent birds from nesting on the bridge. When evidence of migratory birds and their occupied nests is discovered and may be adversely affected by construction or vegetation and tree removal, the contractor will be directed to immediately stop work and notify the Resident Engineer and the Environmental Construction Liaison.

Roosting Bats –

Exclusion measures will be required for roosting bats. The time of installation of the exclusion method chosen will depend on the schedule of construction work and roosting habits of each species known to roost on the South Fork American River Bridge. A qualified biologist will be monitoring the BSA as needed throughout construction. Caltrans will review opportunities for including roosting habitat on the new or upgraded facility.

THREATENED AND ENDANGERED SPECIES

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later

amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

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

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over

such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff.

California red-legged Frog –

The California red-legged frog is a federally listed threatened species and state species of special concern. The species requires a variety of habitat with aquatic breeding (i.e. pools within streams and creeks and ponds, embedded within a matrix of riparian and upland dispersal habitat). Due to recreation uses in the BSA, the riparian habitat is very disturbed and patchy due to informal trails and human activity and is only marginally suitable for the frog, so it is not likely that the species will be present. During field surveys there were no California red-legged frogs observed in the BSA. Based on a site assessment and habitat evaluation, it was determined that the river is not considered suitable breeding habitat for California red-legged frog because of the swiftness of the flow, the presence of substrate with which the frog is not generally associated, and the lack of in-stream vegetation.

Caltrans is preparing a biological assessment in order to submit to the USFWS requesting concurrence that the project may affect but is not likely to affect California red-legged frog.

Environmental Consequences

California red-legged frog –

There is the potential for permanent and temporary impacts to historic and marginally suitable dispersal habitat. There are no known populations in the vicinity of the BSA. The nearest known sighting is over 8 miles away and is not hydraulically connected to the project area. This project will not result in cumulative impacts to the continued existence of the California red-legged frog, its habitat or designated critical habitat.

FESA determination is anticipated in a Letter of Concurrence for a may affect, but not likely to adversely affect the California legged frog or its habitat based on the rationale that the frog is not likely to be present in the BSA. There is no designated critical habitat located in or near the BSA.

Avoidance, Minimization, and/or Mitigation Measures

California red-legged frog –

- Although unlikely to be present, preconstruction amphibian surveys will be completed by a qualified biologist and in accordance with USFWS survey methods for the species.

- After pre-construction surveys are complete, riparian vegetation will be removed by clear and grub method throughout the work area, which will remove all potential dispersal habitat for the frog during construction.

- A qualified biologist will be monitoring the BSA as needed throughout construction.

INVASIVE SPECIES

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State's invasive species list maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff. Invasive plant species may occur within the study area, but no major infestations of invasive plants were observed in the study area. There were no federal noxious weeds identified within the study area.

Environmental Consequences

None of the species on the California list of invasive species is used by the Department for erosion control or landscaping. All equipment and materials will be inspected for the presence of invasive species.

Avoidance, Minimization, and/or Mitigation Measures

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or next to the construction areas.

CLIMATE CHANGE

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels. Research from such establishments as the Intergovernmental Panel on Climate Change (IPCC) are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF6), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles make up the largest source (second to electricity generation) of GHG emitting sources. The dominant GHG emitted is CO2, mostly from fossil fuel combustion.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of vehicle miles traveled (VMT), 3) transitioning to lower GHG emitting fuels, and 4) improving vehicle technologies. To be most effective all four strategies should be pursued collectively. The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

Regulatory Setting

State

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and pro-active

approach to dealing with GHG emissions and climate change. Relevant legislation includes the following policies:

- Assembly Bill 1493 (AB 1493), Pavley.
- Executive Order (EO) S-3-05: (signed on June 1, 2005, by former Governor Arnold Schwarzenegger)
- AB 32, the Global Warming Solutions Act of 2006, Núñez and Pavley
- Executive Order S-20-06: (signed on October 18, 2006 by former Governor Arnold Schwarzenegger)
- Executive Order S-01-07: (signed on January 18, 2007 by former Governor Arnold Schwarzenegger)
- Senate Bill 97 (SB 97) Chapter 185, 2007
- Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. This policy contributes to the Department's stewardship goal to preserve and enhance California's resources and assets.

Federal

Although climate change and GHG reduction is a concern at the federal level; currently there are no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level GHG analysis. As stated on FHWA's climate change website (http://www.fhwa.dot.gov/hep/climate/index.htm), climate change considerations should be integrated throughout the transportation decision-making process–from planning through project development and delivery. Despite the lack of Federal GHG regulations and legislation, FHWA as well as the National Highway Traffic Safety Administration (NHTSA) and U.S. EPA are taking steps to lessen climate change impacts by improving transportation system efficiency, creating cleaner fuels, reducing the growth of vehicle hours travelled, and enabling the

production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines.

Project Analysis

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.[3]

Caltrans and its parent agency, the California State Transportation Agency (CalSTA), have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.[4]

The operation of this project would result in low-to-no potential for an increase in operational GHG emissions. The South Fork American River Bridge is in need of a replacement or rehabilitation, as the current conditions of the bridge warrant a seismic retrofit and other repairs and to ultimately bring the bridge up to standard. If the proposed project is not built it jeopardizes the State Route 49 corridor. The new bridge will not increase capacity. However the new bridge will encourage pedestrian and bicycle activity as the new bridge will have 8 foot shoulders with room for bicycles and standard sidewalks achieving a multi-modal bridge for all users; the current bridge has no shoulder and no sidewalks. Without a permanent solution to rehabilitate or replace the bridge, ongoing maintenance would be required to keep the bridge standing.

Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction

[3] This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).
[4] Caltrans Climate Action Program is located at the following web address: http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

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

CEQA Conclusion

Although construction emissions are unavoidable and are expected to be minimal, the proposed project will not increase highway capacity and is not expected to result in additional operational CO_2 emissions. However, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination regarding significance of the project's direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

Climate Change Strategies

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

Greenhouse Gas Reduction Measures

AB 32 Compliance

Caltrans continues to be actively involved on the Governor's Climate Action Team as ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the

[5] http://climatechange.transportation.org/ghg_mitigation/

targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year.

The following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

- LED lighting will most likely be incorporated into the project accordingly.
- According to the Caltrans' Standard Specifications, the contractor must comply with all of the local Air Pollution Control District's (APCD) rules, ordinances, and regulations regarding to air quality restrictions.
- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction".

Adaptation Strategies

"Adaptation strategies" refer to how Caltrans and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise.

All projects that have filed a Notice of Preparation as of the date of EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency (now known as CalSTA) to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. Caltrans continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

List of Preparers

The following Caltrans North Region staff contributed to the preparation of this Initial Study:

Maggie Ritter, Associate Environmental Planner. Contribution: Environmental Study Coordinator, Community Impact Assessment studies, and Environmental Document Writer

Cassandra Evenson, Associate Environmental Planner (Natural Sciences). Contribution: Natural Environment Study – October 2014

Kathleen Grady, Associate Landscape Architect. Contribution: Visual Impact Assessment – July 2014

William Larson, Associate Environmental Planner (Cultural Resources). Contribution: Historic Property Survey Report and Archaeological Survey Report – August 2014

Gurdeep Bhattal, Hydraulics Branch Engineer. Contribution: Floodplain Hydraulics Study – March 2014

Sean Cross, Transportation Engineer, National Pollutants Discharge Elimination System (NPDES) Coordinator. Contribution: Water Quality Assessment – October 2013

Shalanda Christian, Transportation Engineer. Contribution: Air Quality Study and Noise Study – September 2013

Alicia Beyer, Transportation Engineer, Hazardous Waste Coordintator. Contribution: Initial Site Assessment – December 2012

Appendices List

Appendix A – CEQA Checklist

Appendix B – Title IV Policy Statement

Appendix C – Avoidance, Minimization and/or Mitigation Summary

Appendix D – Feasibility Study

Appendix A – CEQA Checklist

CEQA Environmental Checklist

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This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. 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?	☐	☐	☒	☐
"Impact Findings" are determined by the July 2014 Visual Impact Assessment (VIA).				
II. 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
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?	☐	☐	☐	☒

"No Impact" finding is determined by the project's scope and location setting.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

"No impact" finding is determined by the September 2013 Air Quality Analysis.

IV. BIOLOGICAL RESOURCES: Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

"Impact findings" are determined by the July 2014 Natural Environment Study (NES), project location, and setting.

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

"Impact Findings" are determined by the August 2014 HPSR/ASR Cultural Study.

VI. GEOLOGY AND SOILS: Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

"No Impact" findings are determined by project scope, location setting, and conversations with the engineer.

VII. GREENHOUSE GAS EMISSIONS: Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

"Impact Findings" are determined by project location and setting. One-way traffic control will be implemented during construction. To address some hazardous waste materials, the following measures will be applied:

- **SSP 7-1.02K(6)(j)(iii), lead compliance plan**
- **SSP 14-11.07, yellow stripe and pavement markings removal**
- **SSP 15-1.03B, residue w/lead from paint and thermoplastic.**
- **SSP 14-11.08, disturbance of existing paint systems on bridges**
- **SSP 14-11.05, naturally occurring asbestos**
- **SSP 14-11.09, treated wood waste**

IX. HYDROLOGY AND 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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

"Impact Findings" are determined by the March 2014 Floodplain Hydraulic Study and October 2013 Water Quality Assessment and project's scope and location setting.

X. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?	☐	☐	☐	☒
b)Conflict with any applicable land use plan, policy, or regulation of 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?	☐	☐	☐	☒

"No Impact" findings are determined by project scope and location setting. One-way traffic control will be implemented.

XI. 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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
"No Impact" findings are determined by project scope, location setting, and conversations with the engineer.				
XII. NOISE: Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne 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?	☐	☐	☐	☒
"Impact Findings" are determined by September 2013 Noise Study, project scope, and location setting. Some pile driving and general construction noise may occur but it is temporary, as it will only occur during construction.				
XIII. 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?	☐	☐	☐	☒
"No Impact" findings are determined by scope and location.				
XIV. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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?	☐	☐	☒	☐
"Impact findings" are determined by scope and location. One-way reversible traffic control will be implemented during construction.				
XVI. 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 agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

"Impact Findings" are determined by June 2014 Traffic Management Plan, project scope, and location setting. One-way traffic control will be implemented during construction.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new 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?	☐	☐	☐	☒
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Appendix B – Title IV Policy Statement

DEPARTMENT OF TRANSPORTATION
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March 2013

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

MALCOLM DOUGHERTY
Director

"Caltrans improves mobility across California"

Appendix C – Avoidance, Minimization and/or Mitigation Summary

Land Use

Avoidance, Minimization, and Mitigation Measures

To comply with the Streets and Highways Code 84.5, measures have been included in the scope of work as determined during public outreach. Caltrans will implement the following measures:

- Maintain access to river – the legal right to cross State property for river access currently exists, and will be maintained after the project is constructed. The existing maintenance access road, also used by the public to access the river at the southwest corner of the bridge, is proposed to be paved to improve access for maintenance vehicles.

- Paved parking area (adjacent to SR49) – A total of 10 new parallel parking spaces are proposed on the south side of SR 49, west of the bridge. Additionally, a maintenance vehicle pullout is planned for the north side of SR 49, east of the bridge. When not in use by Caltrans maintenance crews, the public will be able to use it for parking.

- Informal parking – The existing informal parking on Lotus Road across from the Sierra Nevada House restaurant will not be changed as part of this project. Additionally, the project specifications will include a condition that the contractor cannot use the area for construction purposes (staging, storage, etc.). This parking area is outside of the project limits.

- Demarcate right of way lines – Signs will be posted to identify the limits of state right of way. This will help prevent trespassing onto private property and will provide guidance to river users accessing the area around bridge.

Parks and Recreation

Avoidance, Minimization, and Mitigation Measures

Ensure the following is adhered to avoid potential impacts:

- During construction, a boat passage opening large enough to allow a boat or raft (or more than one raft at a time) to pass, will be maintained in the water channel to allow for rafting and boating activity.

- During construction, the bridge will have one-way reversible traffic control so vehicles will be able to cross the bridge. Bicycles and pedestrians will be allowed to cross as well. No closures are anticipated.

- *See Traffic and Transportation / Pedestrians and Bicycles Section for more details.*

Community Impacts

Avoidance, Minimization, and/or Mitigation Measures

Ensure the following is adhered to avoid potential impacts:

- During construction, a boat passage opening large enough to allow a boat or raft (or more than one raft at a time) to pass, will be maintained in the water channel to allow for rafting and boating activity.

- During construction, the bridge will have one-way reversible traffic control so vehicles will be able to cross the bridge. Bicycles and pedestrians will be allowed to cross as well. No closures are anticipated.

- *See Traffic and Transportation / Pedestrians and Bicycles Section for more details.*

Relocation

Avoidance, Minimization, and/or Mitigation Measures

Because the project will not require any property relocation, measures to avoid property relocation is met as part of the project. The project will require R/W property acquisition for all three alternatives. The Caltrans R/W department will work with property owners for acquisition in the next phase of the project.

Traffic and Transportation/Pedestrian and Bicycle Facilities

Avoidance, Minimization, and/or Mitigation Measures

Measures to minimize impacts during construction include:

- One-way reversible traffic control in accordance with Standard Plan sheet T13 may be allowed at all times.

- The maximum length of any lane closure shall be limited to 0.8 mile.

- A minimum of one paved traffic lane not less than 11 feet wide shall be open for use by public traffic at all times, and two lanes shall remain open when construction operations are not actively in progress.

- A minimum of 4 foot shoulder shall remain open at all times for pedestrian and bicycle use.

- The use of K-rail is recommended to separate the work zone from the public traffic.
- Work behind k-rail may be performed at any time.
- Consider using a temporary traffic signal to control traffic when the bridge is reduced to one lane open.
- Advance flaggers may be needed in areas where there is inadequate approaching sight.
- When bridge rail is removed, K-rail shall be secured in place prior to allowing traffic on the bridge.
- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Special Days, designated legal holidays and the day preceding designated legal holidays; and when construction operations are not actively in progress.
- Access to driveways and cross streets must be maintained during construction, in accordance with traffic control standard plans or traffic handling provided in the contract plans.
- Pedestrian access must be maintained during construction, with at least one sidewalk open on one side of the roadway at all times. Additional signs will be required to detour pedestrians when sidewalks are closed for contract work.
- Bicycle traffic must be maintained during construction. Additional signs and striping will be required to direct bicycle traffic when bikeways are closed for contract work.
- Portable changeable message signs will be required in direction of traffic during construction for each lane, shoulder, and bridge closure.
- Work at this location may require the assistance of COZEEP, but probably not a full time presence.
- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP estimate.
- Lane closure charts will have to be developed prior to P&E.

Visual/Aesthetics

Avoidance, Minimization, and Mitigation Measures

Avoidance or minimization measures have been identified and can lessen visual impacts caused by the project. Also, the inclusion of aesthetic features in the project design previously discussed can help generate public acceptance of a project. This section described additional avoidance and/or minimization to address specific visual impacts. These will be designed and implemented with concurrence of the District Landscape Architect.

The following measures to avoid or minimize visual impacts will be incorporated into the project:

- All areas disturbed due to all construction activities, including staging locations and access roads shall be restored to its pre-construction condition upon completion of the project. This can be accomplished by loosening and re-contouring the area's soil before applying erosion control (such as hydro-seed with a native seed mix and erosion control blankets).

- Minimize the removal of and avoid where feasible established trees and vegetation. Where it is possible to save and preserve existing trees (of significant size and maturity), care and caution should be implemented during the construction phase. Environmental Sensitive Area (ESA) fencing shall be installed to demarcate areas where vegetation is being preserved and root systems of trees shall be protected.

- All disturbed areas during each construction season shall utilize BMPs which will include temporary erosion control at the end of each construction season.

- Aesthetic treatments used on this project should consider using similar features and colors that will be consistent with the current project being built at the Marshall Gold Discovery State Historic Park. These elements consist of colored stamped concrete. This work should be completed under the direction of the District's Landscape Architect unit.

- The retaining wall(s), if constructed, shall incorporate designing and aesthetic features into the walls, this will be determined during the design phase; additionally, the wall shall be colored or painted with earthen hues to blend with the natural surrounding environment. This will help reduce glare as well.

- The new bridge alternative should consider a "see through" railing constructed as part of the bridge's deck. This will allow the traveling public to view the river and surrounding landscape.

- Trees and shrubs removed as part of a riparian zone will be replaced as part of the required mitigation *(see Biology Section).* The biologist shall mitigate to ensure that the placement of the replanted trees and shrubs for riparian habitat. This will also meet the recommendation for minimizing visual impacts.

Cultural Resources

Avoidance, Minimization, and Mitigation Measures

It is the department's policy to avoid cultural resources whenever feasible. Further investigation of the resources located within the APE may be necessary if they cannot be avoided by the proposed project. Additional archeological surveys will be necessary if project limits are expanded to include areas outside the current APE limits. In the event that buried archeological materials are encountered during construction, Stipulation XV will be followed. Post Review Discoveries, Section B.1.-3 in the January 2004 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA).*

Hydrology and Floodplain

Avoidance, Minimization, and Mitigation Measures

The following measures are recommended for any alternative in order to minimize impacts to the floodplain:

- The proposed bridge should have the same number of piers (or less) as the existing bridge. In other words, obstructions to flow in terms of area facing flows should not be greater than the existing.

- The waterway area using either the 100-year event or the "flood of record" water surface elevation as a maximum elevation under the bridge should not be reduced below existing available waterway area.

Water Quality and Stormwater Runoff

Avoidance, Minimization, and/or Mitigation Measures

The following actions are recommended, in order to protect receiving water bodies from potential pollution arising from construction activities and/or operations related to this project:

1) If the temporary storage of equipment and material on State property is permitted by the Engineer, all soil disturbance created within the contract limits or at the Contractor's secured area(s), shall be accounted for in the total disturbed soil area (DSA) estimate.

2) Caltrans' Storm Water Management Plan (SWMP), Project Planning and Design Guide (PPDG) Section 4, and Evaluation Documentation Form (EDF) provide detailed guidance in determining if a specific project requires the consideration of permanent Treatment BMPs. Line Item BMPs may be required during the Plans Specifications and Estimate (PS&E) phase of the project.

3) The project shall adhere to the conditions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) MS4 Permit (Permit), CAS No. 000003 Order No. 2012-0011-DWQ. As necessary, consult with your NPDES coordinator for additional Permit requirements and guidance.

4) Adherence to the compliance requirements of the NPDES General Permit CAS No. 000002 (Order No. 2010-0014-DWQ) for General Construction Activities is required if the DSA is equal to or greater than 1.0 acre. If the total DSA is less than 1.0 acre, a Caltrans approved Water Pollution Control Plan (WPCP) will be required, which specifies the level of temporary pollution control measures for the project.

5) Adherence to the following is recommended to prevent receiving water pollution as a result of construction activities and/or operations from this project:

    a. Follow all applicable guidelines and requirements in the 2010 Caltrans Standard Specifications (2010 CSS), Section 13, regarding water pollution control and general specifications for preventing, controlling, and abating water pollution in streams, waterways, and other bodies of water.

    b. Consideration should be given to 2010 CSS, Section 13-4 (Job Site Management), to control potential sources of water pollution before it encounters any storm water system or watercourse. It requires the Contractor to control material pollution, manage waste, and non-storm water at the construction site.

    c. The Contractor prepared WPCP or SWPPP (whichever is applicable for the project) shall incorporate appropriate Temporary Construction Site BMPs to implement effective handling, storage, use and disposal practices during construction activities.

d. Shoulder backing areas should be stabilized by Temporary Construction Site BMPs, or rolled and compacted in place, by the end of each day and prior to the onset of any precipitation.

e. Existing drainage facilities should be identified and protected by the application of appropriate Construction Site BMPs.

f. Attention should be given to 2010 CSS, Section 13-4.03D(3), Concrete Waste, when pipe lining operations involve annular space grouting.

g. Attention should be given to 2010 CSS, Section 13-4.01B, Submittals, before dewatering operations commence.

6) Refer to the State Water Resources Control Board, Water Quality Permit Order No. 2003-0003-DWQ, for specific requirements relating to low threat discharges to land, where and when applicable, for proposed dewatering operations. A waiver by the Central Valley Regional Water Quality Control Board (Regional Board) can be utilized if the following conditions are met for low threat discharges to land (Anne Olson, 10/24/12):

   1) Waiver (No Report of Waste Discharge (RWD) / No fee): no known existing groundwater pollution; less than three weeks duration; and less than 10,000 gpd.

   2) Waiver (RWD, fee, and Notice of Applicability (NOA) required): no known existing groundwater pollution; less than three weeks duration; and up to 100,000 gpd (we want to make sure that they have enough land committed and good BMPs to contain the water).

   3) Low Threat General Waste Discharge Requirements (RWD, fee and NOA required): almost everything else.

7) Refer to the Regional Board Permit General Order No. R5-2008-0081, for specific requirements relating to low threat discharges to surface water, where and when applicable, and for proposed dewatering operations. Discharges covered by this General Order, are either 4 months less in duration, or have an average dry weather flow of less than 0.25 million gallons per day.

8) Batch plants and/or rock crushing activities within Caltrans right-of-way (ROW) will require the preparation of an Air Space Lease Agreement prior to mobilization. The Lesee shall obtain an Industrial Strom Water General Permit Order 97-03-DWQ (General Industrial Permit) from the State Water Resource Control Board (SWRCB). The Lessee

shall submit a copy of the Notice of Intent (NOI) to comply with the terms of the General Industrial Permit, a copy of the receipt letter with the Waste Discharge Identification (WDID) Number from the SWRCB, an approved Storm Water Pollution Prevention Plan (SWPPP), and a monitoring plan when filing for a Caltrans Encroachment Permit. The Lessee shall submit any amendments to the SWPPP, copies of any sampling/monitoring results, a copy of the annual report, and any reporting requirements covered by the General Industrial Permit. Batch plant or rock crushing activities outside of Caltrans ROW will require additional coordination.

9) Caltrans NPDES Office Staff may participate in early project design consultation with the Regional Board if the project entails one or more acres of DSA.

BIOLOGICAL ENVIRONMENT

Natural Communities

In order to avoid and minimize potential impacts to the sensitive natural communities, the removal of native vegetation, including oak trees and riparian habitat, will be confined to the minimal area necessary to facilitate construction activities. All disturbed soil areas will be restored to their existing condition, to the extent possible.

Measures that will be implemented to avoid or minimize impacts to the natural communities of the project area include ESA fencing, biological monitoring, and pre-construction biological surveys.

Compensatory Mitigation

Valley Foothill Riparian: For Alternatives 2, 3A, and 3B compensatory mitigation is likely to be required for permanent impacts to riparian habitat. Types of compensation that will be considered for the project include but are not limited to bank purchase, in-lieu fees, endowments, and project specific restoration.

Wetlands and Other Waters of the U.S.

Avoidance, Minimization, and/or Mitigation Measures

Alternative 2 may require mitigation for permanent impacts for fill within other waters of the U.S. Types of compensation that will be considered for the project include but are not limited to bank credit purchase, in-lieu fees, endowments, and project specific restoration. Compensatory mitigation is not anticipated for the No-Build alternative and Alternatives 3A and 3B.

Plant Species

Avoidance, Minimization, and/or Mitigation Measures

Removal of native vegetation shall be confined to the minimal area necessary to facilitate construction activities. Re-vegetation measures shall include erosion control seeding containing native species specific to the area. The seed mix will be weed free and certified to include no invasive species. *More information can be found in the Invasive Species section.*

Animal Species

Avoidance, Minimization, and/or Mitigation Measures

Foothill yellow-legged frog –

- Preconstruction amphibian surveys will be completed by a qualified biologist in accordance with the CDFW survey methods for the species.
- After preconstruction surveys are complete, riparian vegetation will be removed by clear and grub method through the work area, which will remove all potential dispersal habitat for the frog during construction.
- A qualified biologist will be monitoring the BSA as needed throughout construction.
- No compensatory mitigation is required.

Western pond turtle –

Preconstruction surveys for reptiles will be conducted by a qualified biologist and in accordance with CDFW survey methods for the species a qualified biologist will be monitoring the BSA as needed throughout construction. During dewatering activates the work will be designated and conducted in a manner that reduces the potential for impacting the turtles.

Migratory Birds –

To avoid impacts to migratory birds nesting on the bridge, the nests shall be removed outside of the nesting period that is from September 1 to March 31.

If construction activities occur during the nesting season for migratory birds, February through August 31, a qualified biologist will survey the project area no more than one week prior to start of construction and prior to vegetation and tree removal. Caltrans may implement preconstruction avoidance measures, like exclusion methods, to prevent birds from nesting on the bridge. When evidence of migratory birds and their occupied nests is discovered and may be

adversely affected by construction or vegetation and tree removal, the contractor will be directed to immediately stop work and notify the Resident Engineer and the Environmental Construction Liaison.

Roosting Bats –

Exclusion measures will be required for roosting bats. The time of installation of the exclusion method chosen will depend on the schedule of construction work and roosting habits of each species known to roost on the South Fork American River Bridge. A qualified biologist will be monitoring the BSA as needed throughout construction. Caltrans will review opportunities for including roosting habitat on the new or upgraded facility.

Threatened and Endangered Species

Avoidance, Minimization, and/or Mitigation Measures

California red-legged frog –

- Although unlikely to be present, preconstruction amphibian surveys will be completed by a qualified biologist and in accordance with USFWS survey methods for the species.
- After pre-construction surveys are complete, riparian vegetation will be removed by clear and grub method throughout the work area, which will remove all potential dispersal habitat from the frog during construction.
- A qualified biologist will be monitoring the BSA as needed throughout construction.

Invasive Species

Avoidance, Minimization, and/or Mitigation Measures

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or next to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

Greenhouse Gas Reduction Measures

AB 32 Compliance

Caltrans continues to be actively involved on the Governor's Climate Action Team as ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year.

The following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

- LED lighting will most likely be incorporated into the project accordingly.
- According to the Caltrans' Standard Specifications, the contractor must comply with all of the local Air Pollution Control District's (APCD) rules, ordinances, and regulations regarding to air quality restrictions.
- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction".

Appendix D – Feasibility Study

Report on Feasibility of Providing Access to Navigable Rivers

Introduction

Since two of the three viable alternatives involve a new structure over navigable waters, studies relating to river access were completed. Issues considered included extent of public use for recreational purposes, other access options, environmental impacts, right of way issues, construction and maintenance costs, and pedestrian accessibility. A discussion of these topics and a summary of proposals is contained in this section, while a listing of all options considered and a corresponding map is included as an attachment.

Public Input

A strong interest in developing river access had been noted in earlier phases of project development, so the project development team opted to make contact with interested parties regarding a possible meeting on the topic. A meeting was held on August 29, 2013 and was attended by Caltrans personnel, county personnel, a Chamber of Commerce representative, and two members of the American Whitewater recreational group. The purpose of the meeting was to gather information about current river access for recreational users. Comments regarding river access were also received following a public meeting held for the project on May 14, 2013.

Identified Issues of Public Concern

From meetings held and comments received about the project and river access, the following topics of concern were identified:

a) Narrow existing bridge restricts access
b) Retention of existing access on all corners of the bridge
c) Improvement of adjacent trail system
d) Parking
e) Restrooms and trash cans

All identified topics of concern were considered in the study, and study conclusions can be viewed in the attachments.

Background

a) Extent of Public Use for Recreational Purposes
The Lotus-Coloma area is very heavily utilized for recreational purposes including camping, river based activities, concerts and festivals, visits to the Marshall Gold Discovery State Historic Park, tourism/sightseeing and other outdoor activities. According to one source, the South Fork American River in the vicinity of the project is the most heavily rafted segment of river in the state. As such, the local community and water based recreational organizations have been very interested in river access issues and this project in general. Information

gathered suggests that the peak visitation months run from mid-June to mid-August.

b) Other Access Options
A total of 18 river access options were identified in the vicinity of the project (within 2 ½ miles). These include both government and private facilities, some being fee based, and others at no cost. A summary is provided here, with further details and a map provided in the appendix.

7 private river rafting outfitters
4 private camping facilities
2 government facilities (fee based)
3 government facilities (no cost)
2 parking areas

Future improvements to river access were also identified during studies. These include potential development of the Bureau of Land Management parcel just south of the U.S. Post Office near the bridge, potential construction of a park and ride facility near the corner of Lotus Road and Route 49, and the loosening of day use restrictions on private campgrounds and other businesses.

c) Right of Way Issues
Route 49 in the vicinity of the project is a conventional highway without access control restrictions. The right of way at the bridge is 200' on each side of the existing centerline (400' width total), and will not be reduced due to this project. The lack of access control means the public has the legal right to enter and cross the state right of way to access the river.

Conclusions

The project team determined that legal river access is currently afforded to the public through the State right of way that bounds the existing bridge, and extensive river access opportunities, both government and private owned, exist in the vicinity. However, given that the river in the project vicinity is a heavily used recreational destination, it is prudent to make reasonable upgrades to enhance the existing river access.

After gathering and analyzing available information, meeting with interested parties, conducting several internal focus meetings, and consulting with executive staff, it is proposed to make the access improvements identified below. These improvements can be made with minimal cost and environmental impacts, and require no additional right of way. It is proposed to include these access and access related improvements, even if a rehabilitation alternative is selected:

- Wider sidewalks and shoulders on bridge – The inclusion of standard sidewalks and shoulders on the new or rehabilitated structure will enhance river access by allowing pedestrian users to easily cross the structure.

- Maintain access to river – Route 49 in the project vicinity is not an access controlled facility. The legal right to cross State property for river access currently exists, and will be maintained at the conclusion of this project. An existing maintenance access road at the southwest corner of the bridge is proposed to be paved to improve access for maintenance, and in doing so, will provide improved access for recreational river users.
- Paved parking area (near highway) – A total of 10 parallel parking spaces are proposed to be constructed on the south side of Route 49 on the west side of the bridge. Their location is dictated by design standards for sight distance. Additionally, a maintenance vehicle pullout is planned for the north side of Route 49 on the east side of the bridge. When not in use by maintenance forces, the public can use it for parking.
- Informal parking – The existing informal parking on Lotus Road across from Sierra House will not be changed as part of this project. Additionally, the project specifications will include a condition that the contractor cannot use the area for construction purposes (staging, storage, etc.).
- Demarcate right of way lines – Signs will be posted to identify the limits of state right of way. This will help prevent trespassing onto private property by providing guidance to river users accessing the area around the bridge.

Constructing the access improvements identified above would have the following impacts:

- Environmental Impacts
  Impacts associated with river access improvement are expected to be minimal since recreational river access already exists around all four corners of the existing bridge, and the improvements proposed do not have significant impacts. For further information, refer to the attached environmental document.

- Construction and Maintenance Costs
  Wider shoulders and sidewalks are included in the project to meet current design standards, so no additional cost is associated with them in regards to improving river access. Similarly, paving the maintenance road is included in the project, so no additional cost is associated with it as well, and maintaining the current access control status (no restrictions to access) has no cost.

  The additional initial cost for paved parking spots is minor and includes additional asphalt concrete, base material, striping, signing and drainage work, and ongoing maintenance costs should be minor.

  Maintaining the current informal parking across from Sierra House has no construction or maintenance costs.

  Signs marking the right of way will have minimal initial costs, and likely to have low maintenance costs (vandalism excepted).

- Pedestrian Accessibility
  This project will improve accessibility to the river for the general public. This is a result of the improvements identified above, and due to the removal of vegetation from bridge abutments fills. Inclusion of a developed ADA compliant trail into the river floodplain was considered, but not deemed practical or warranted given there are no developed facilities in the floodplain. If a public boat ramp was being included in the project (see next section), providing an ADA compliant trail would have been warranted.

Public Boat Ramps

Consultations were made with the following State and Federal agencies regarding providing an access ramp (constructed by Caltrans) to a public boat launching area adjacent to State right of way (constructed by others). None of the agencies indicated they had any plans to construct a public boat launching area at this time.

a. United States
   - Army Corps of Engineers
   - Fish and Wildlife Service
   - Department of the Interior Bureau of Reclamation
   - National Marine Fisheries Service
   - Forest Service
   - Department of the Interior Bureau of Land Management

b. California
   - Department of Fish and Wildlife
   - State Lands Commission
   - Department of Parks and Recreation
   - Division of Boating and Waterways

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY PLAN

REGISTERED CIVIL ENGINEER DATE

5/15/14

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

ALL VIABLE ALTERNATIVES INCLUDE:
6' - 8" SIDEWALKS/CURBS
8' SHOULDERS
12' LANES
ON THE PROPOSED BRIDGE.

ACCESS IMPROVEMENTS STUDY MAP

SOUTH FORK AMERICAN RIVER BRIDGE PROJECT

EXISTING RIGHT OF WAY (APPROXIMATE)

NOTE: THIS PHOTOGRAPH DOES NOT SHOW HIGHWAY IMPROVEMENTS COMPLETED IN 2006.

NO SCALE

REFER TO ATTACHED LIST FOR DETAILED INFORMATION ON EACH ITEM:

1. WIDER SIDEWALKS AND SHOULDERS ON BRIDGE
2. ACCESS TO THE RIVER
3. IMPROVE LOCAL TRAIL SYSTEM
4. UNPAVED PARKING AREA (IN THE RIVERBED)
5. PAVED PARKING AREA (NEAR HIGHWAY)
6. SEASONAL PARKING (CLEAR OF HIGH FLOWS)
7. PUBLIC RESTROOMS
8. TRASH CANS (LOCATIONS NOT SHOWN)
9. INFORMAL PARKING
10. INFORMAL PARKING
11. N/A
12. REST STOP (NOT SHOWN)
13. PARK AND RIDE LOT
14. DEMARCATE R/W LINES (NOT SHOWN)

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => $DATE | TIME PLOTTED => $TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

CURRENT PROPOSALS BASED ON ACCESS IMPROVEMENTS STUDY

Updated 5/15/14

See other tab for information on all options considered.

No. (from Studies tab)	Item	Proposal	Additional Information
1	WIDER SIDEWALKS AND SHOULDERS ON BRIDGE	Construct standard sidewalks and shoulders on the bridge and road.	Standard sidewalks and shoulders will be included in the project. The specific locations are dependant on the alternative being considered. Generally speaking, standard shoulders will be included in the whole project. Standard sidewalks will be included on the bridge and bridge approaches, and along any reconstructed/widened roadway west of the bridge.
2 (A)	ACCESS TO RIVER	Maintain existing level of "freedom" to access the river from all corners of the bridge.	At the project conclusion, there will be the same level of access at all corners of the bridge as there was prior to the project. This includes the right for the public to legally cross the State right of way and no installation of fencing to prevent such access.
2 (B)	ACCESS TO RIVER	Pave the existing maintence road on the southwest corner of the bridge.*	Place HMA on the existing gravel road to provide a stable surface for maintenance vehicles, and in doing so, also provide a benefit for people accessing the river on the southwest corner.
5 (A)	PAVED PARKING AREA (NEAR HIGHWAY)	Provide parallel parking spaces on the south side of Route 49 west of the bridge.	A total of 10 parallel parking spaces will be provided along Route 49. Parking was placed as close to the river as possible while still meeting design standards such as shoulder width, sight distance, etc.
5 (B)	PAVED PARKING AREA (NEAR HIGHWAY)	Construct a maintenance vehicle pullout on the north side of Route 49 just east of Lotus Road.*	Construct an MVP for use by maintenance vehicles, and in doing so, also provide a parking opportunity for people accessing the river.
10	INFORMAL PARKING	Keep the informal parking area on Lotus Road (across from Sierra Nevada House).	The project will not permanently affect the informal parking area, and the project specifications can include a clause that prevents the contractor from staging/occupying the area during construction.
14	DEMARCATE R/W LINES	Provide signs along the State R/W line near the river.	Signs will be placed along the R/W line to identify limits of public property.

* These improvements included for maintenance purposes provide side benefits for river access.

SUMMARY OF STUDIES FOR ACCESS IMPROVEMENTS STUDY

Updated 5/14/14

Information contained here provided by Environmental, and was originally obtained from the public (individuals and organized groups) and external agencies, and then considered by the PDT group.

No.	Item	Description	Request/Comment Source	Status	Apparent Relavance to Access Issue	Notes
1	WIDER SIDEWALKS AND SHOULDERS ON BRIDGE	Put sidewalks (ped/bike access) across the bridge.	30 + comments locals/public	Include	Moderate	New bridge includes standard width sidewalks and shoulders.
2	ACCESS TO RIVER	Access down to the river: either ADA compliant or not; but a trail down to the river, keeping the existing public use.	(information not provided)	Include (Partial)	Significant	Providing a designated path may be complicated due to ADA requirements, which may or may not apply in the riverbed. Maintenance needs for upkeep of a formal path that is routinely submerged is unknown. The public currently accesses the river informally at all "corners" of the bridge. Informal access, equal to existing access, will be restored after project completion (ie, there are no restrictions on the public crossing over State R/W in this area to reach the river). Approximate existing pathways shown on provided mapping. It's not clear at this time where the most appropriate location would be to place a formal pathway(s).
3	IMPROVE LOCAL TRAIL SYSTEM	Connect the walking trail from Hennington-Lotus Park to Marshall Gold Discovery Sate Park.	4 comments in HLP concept plan, CT public workshop, and focus meeting with locals	Rejected	Moderate	Information on the existing County trail system is not available at this time. A guess on pathway routing through State right of way is shown on attached mapping. Providing a designated path may be complicated due to ADA requirements, which may or may not apply in the riverbed. Maintenance needs for upkeep of a formal path that is routinely submerged is unknown. The comments weren't clear on whether we should do additional work outside our right of way to construct the pathway, or work would be limited to spanning across our right of way (line to line) to connect to existing (or planned) County pathway.
4	UNPAVED PARKING AREA (IN THE RIVERBED)	Provide a *gravel* parking lot in the gravel area at the SW side of the bridge (riverbed). Place boulders to block cars from going down to shore.	public/locals	Rejected	Moderate	Providing a designated parking area may be complicated due to ADA requirements, which may or may not apply in the riverbed. Maintenance needs for upkeep of a formal parking that is routinely submerged is unknown. In times past, this area was open to vehicle access, but was eventually closed off. It is our understanding that problems with garbage and maintenance of the area prompted closure. There are reports of vehicles accidentally going into the river as well.
5	PAVED PARKING AREA (NEAR HIGHWAY)	Provide a *hardscaped* ADA-compliant parking (parking infastructure) area for public access down to river.	public/locals	Inlcude	Moderate	Depending on the alternative selected, area could be available to create paved parking adjacent to Route 49 westerly of the new bridge. Even though 8' shoulders are planned for this project, sight distance and bike lane issues will generally preclude on street parking. Other issues include: increased maintenance by CT forces and difficulty meeting ADA requirements (handicapped spaces, design standards, etc.)
6	SEASONAL PARKING AREA (CLEAR OF HIGH FLOWS)	Provide a *seasonal* parking area on SW side of bridge in summer season to stay out of high flows during the winter.	public/locals	Rejected	Moderate	This item ties in with Item 4 above. A County employee noted that kayakers like to use the river in the winter, so he suggested having parking that would not be subject to closure except during abnormally large river flows. Same issues as Item 4 above. Definition of "high flows" would be needed for further studies.
7	PUBLIC RESTROOMS	Provide bathrooms.	public/locals: this went with the idea of "parking infastructure"	Rejected	Minimal	Limited consideration of this item. It is outside the scope of the project, as well as our interpretation of State laws regarding providing "access" to rivers. A possible location is shown the mapping, though R/W would need to be obtained to place at this location.
8	TRASH CANS	Provide trashcans.	public/locals: local business owner and community member volunteered to maintain the trashcans	Rejected	Minimal	Placing trash cans (presumably affixed to a post) is feasible. An agreement could be made with a local "entity" to maintain them, with a penalty of permanent removal if maintenance becomes an issue (ie, CT Maintenance is having to clean/empty them due to a lack of upkeep by responsible entity). This item is outside the scope of the project, as well as our interpretation of State laws regarding providing "access" to rivers.
9	INFORMAL PARKING	Keep informal parking area on SE side of bridge; most local folks will park there when accessing river from ARB.	public/locals	Rejected	Moderate	Inclusion of sidewalk on the southeast corner of the bridge, combined with roadway widening as part of this project, eliminates reasonable parking value of this area. Some usage may be retained under the seismic retrofit and widening alternative. Replacement parking is being considered; see Item 5 above.
10*	INFORMAL PARKING	Keep the informal parking area on Lotus Road (across from Sierra Nevada House) as it is a popular area to park.	public/locals	Include	Moderate	There are no project plans at this time that affect the noted area; it is out of the planned limits of construction. The contractor might find it a desirable location to stage work, but it could be specified in the contract that it cannot be used by the contractor for any reason. This restriction could be limited to peak river use seasons in order to make work easier for contractor if they were to find that area desirable to use.
11	REQUEST FOR DETAILED STUDIES AND MULTIPLE PROJECT PROPOSALS	Request a stand alone feasibility study for river access "with access alternatives".	American White Water Association: blog and letter to CT	Rejected	Varies, depending on Item	Feasiblity of providing access is being considered as part of the project development process. However, a separate report is not being prepared; conclusions of studies will be contained in the project approval document (Project Report).
12	REST STOP	A rest stop.	(detailed information not provided)	Rejected	Minimal	Limited consideration of this item. It is outside the scope of the project, as well as our interpretation of State laws regarding providing "access" to rivers.
13	PARK AND RIDE	Construct a park and ride facility near the bridge replacement project.	River Access PDT Group	Rejected	Moderate	The PM made contact with County regarding this issue. Any PNR facility would be planned and constructed by another agency (not Caltrans). Along Lotus Road, south of Rte 49, and adjacent to the river, there could potentially be a good park and ride location which would also serve as parking for persons accessing the river.
14	DEMARCATE R/W LINES	Provide signage indicating location of State right of way.	River Access PDT Group	Include	Significant	The public may not be aware of property line locations, and as a result, may be hesitant to access the river for fear of trespassing. Posting signage would alleviate this issue.

* Environmental suggested removing this item from this list since they will address it in the Environmental document.