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OAK ROAD BRIDGE (40C-0060) OVER BEAR CREEK REPLACEMENT PROJECT

Initial Study / Mitigated Negative Declaration

February 2019

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Administrative Draft

OAK ROAD BRIDGE (40C-0060) OVER BEAR CREEK REPLACEMENT PROJECT

Initial Study / Mitigated Negative Declaration

Mariposa County, California

Submitted to:
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EXECUTIVE SUMMARY

Through the Oak Road Bridge over Bear Creek Replacement Project (Project), Mariposa County (County) proposes to demolish the existing functionally obsolete Oak Road Bridge over Bear Creek and construct a new bridge within the same general alignment that is designed to current structural and geometric standards while minimizing adverse impacts to Bear Creek and the surrounding riparian area. The existing bridge is 22-feet-long and 16.5-feet-wide, with , with one bi-directional travel lane with no shoulder on either side. The replacement bridge would be 20 feet in width to meet Cal Fire minimum clear width requirements and would accommodate a single bi-directional travel lane with shoulders.

This Draft Initial Study/Mitigated Negative Declaration (IS/MND) was submitted to the State Clearinghouse on February 28, 2019, for a 30 day public review period that will end on March 29, 2019. During the public review period, the Draft IS/MND is available for review at the County Department of Public Works during business hours.

The Draft IS/MND prepared for the Project to assess the potential impacts on the environment and the significance of those impacts. Based on the results of the Draft IS/MND, the Project would not have any significant impacts on the environment once mitigation measures are implemented. This conclusion is supported by the following findings:

- The Project would not impact agricultural and forest resources, land use and planning, mineal resources, population and housing, and recreation.
- The Project would have a less-than-significant impact on aesthetics, air quality; geology, soils, and seismicity; greenhouse gas emissions, and utilities and service systems.
- The Project would have a less-than-significant impact, once mitigation measures are implemented, on biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation and traffic, and tribal cultural resources.
- No substantial evidence exists that the Project would have a significant negative or adverse effect on the environment.

The Project incorporates standard construction measures, as described in the Draft IS/MND, and all applicable mitigation measures, as listed below and described in the Draft IS/MND.

In addition to standard construction measures required by Caltrans Standard Specifications and other applicable laws, regulations, and policies, the following mitigation measures will be implemented as part of the Project to avoid or minimize potential environmental impacts. Implementation of these mitigation measures would reduce potentially-significant environmental impacts of the Project to less-than-significant levels.

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
Biological Resources				
Project implementation has the potential to impact special status aquatic/semi aquatic species.	**Mitigation Measure BIO-1:** A qualified biologist shall conduct a preconstruction survey for special-status plant species within 30 days prior to construction. If special-status plant species are not found, then no further measures are necessary. If special-status plant species are found in the Project site, California Department of Fish and Wildlife (CDFW) will be notified at least 10 days prior to dewatering or construction impacts in the vicinity of any special-status plant species in accordance with the California Native Plant Protection Act of 1977 (California Department of Fish and Game (CFGC) Section 1900-1913) to allow sufficient time to transplant the individuals to a suitable location.	Prior to construction activities	Mariposa County	Less than significant
	Mitigation Measure BIO-2: The following avoidance and minimization efforts shall be implemented in order to reduce potential Project effects to Foothill Yellow-legged Tree Frog (FYLF): • A qualified biologist will conduct a preconstruction survey within 24 hours prior to the start of construction activities within the riparian and aquatic habitat in the project impact area (PIA). The Project proponent shall submit the name and credentials of the Project's biologist(s) to CDFW for review and approval at least 15 days prior to the onset of construction activities. • A qualified biologist will monitor any vegetation removal in Bear Creek. The biologist will monitor the installation of water diversion structures placed in Bear Creek. • The upstream and downstream limits of the Project will be flagged and/or signed to prevent the encroachment of construction personnel and equipment into any sensitive areas during Project work. • Prior to construction, environmental awareness training will be conducted for construction personnel to brief them on how to recognize FYLF. Construction personnel will also be informed that if a FYLF is encountered in the work area, construction shall stop and CDFW contacted for guidance. A training log sign-in sheet will be maintained. • If FYLF are found at any time during Project work, construction will stop and CDFW will be contacted immediately for further guidance. • Staging areas as well as fueling and maintenance activities shall be a minimum of 100 feet from riparian or aquatic habitats. The Project proponent will prepare a spill prevention and clean-up plan. • The Project will administer best management practices (BMPs) to protect water quality and control erosion. • If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters.	Prior to and during construction activities	Mariposa County	Less than significant

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	• Upon completion of construction activities, any barriers to flow shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate.			
	Mitigation Measure BIO-3: The following avoidance and minimization efforts shall be implemented in order to reduce potential Project effects to western pond turtle: • If dewatering is necessary, the construction area shall be dewatered prior to construction activities. CDFW shall be notified prior to dewatering activities. • No more than two weeks prior to the commencement of ground-disturbing activities, the County shall retain a qualified biologist to perform surveys for western pond turtle within suitable aquatic and upland habitat within the Project site. Surveys will include western pond turtle nests as well as individuals. The biologist (with the appropriate agency permits) will temporarily move any identified western pond turtles upstream of the construction area, and temporary barriers will be placed around the construction area to prevent ingress. Construction will not proceed until the work area is determined to be free of turtles. The results of these surveys will be documented in a technical memorandum that will be submitted to CDFW (if turtles are documented). • Standard construction BMPs shall be implemented throughout construction, in order to avoid and minimize adverse effects to the water quality within the biological study area (BSA).	Prior to and during construction activities	Mariposa County	Less than significant
Project implementation has the potential to impact special status terrestrial species.	**Mitigation Measure BIO-4:** The following provides methods and seasonal constraints to prevent direct mortality to bats roosting underneath or within the existing bridge or within the trees within the Project site: <u>Bridge</u> • Prior to bridge demolition, humane exclusion and eviction of bats from expansion joints, behind the utility channels, and all weep holes will be needed to prevent direct mortality of bats. Humane exclusion and eviction of bats must occur only during seasonal periods of bat activity when no non-volant young or overwinter bats are present so that no bats are trapped inside the roost features. In this region, the first annual appropriate season to conduct humane eviction is between approximately March 1 (or after evening temperatures rise above 45°F, and less than 0.5 inches rainfall in 24 hours occurs) and April 15 (after which time females begin giving birth to pups). The next annual season is after maternity season and prior to winter torpor or hibernation; September 1 through about October 15 (or before evening temperatures fall below 45°F, and prior to greater than 0.5 inches rainfall within 24 hours). • Under guidance of a qualified bat biologist experienced with humane bat eviction procedures on bridges, humane bat exclusion and eviction will be conducted by an experienced bat exclusion contractor or by the bridge contractor or subcontractor.	Prior to and during construction activities	Mariposa County	Less than significant

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	Humane exclusion and eviction consist of daytime installation of blockage materials and one-way exits attached to the concrete that will permit bats to exit during nightly feeding activities, but not allow reentry into the roost feature. These one-way exits must be made and attached so that they can remain in place until bridge demolition occurs; however, if demolition is delayed, regular monitoring of exclusion blockage materials and one-way exit eviction materials will be required, and repairs made as needed. o Blockage materials for the expansion joints shall consist of foam pipe insulation, cut to fit tightly into the expansion joint opening at the bottom and sides of soffits, with sufficient numbers of one-way exits installed to permit evacuation of the entire expansion joint by all bats. One-way exits will consist of 14-inch-wide aluminum roll flashing formed into 8- to 10-inch-long rectangles, with bent top flanges for attachment to the concrete surface of the bridge using Sikaflex brand polyurethane construction adhesive and Gorilla brand adhesive tape. The bottom portion of the aluminum flashing rectangles shall be fitted with fiberglass window screen mesh using Gorilla brand adhesive tape to form an extension chute that will prevent reentry by bats through the open bottom of the flashing rectangular one-way exit. The number of one-way exits installed at each roost location shall be sufficient to allow complete evacuation of all bats. o Because bats may roost in abandoned cliff swallow (Petrochelidon pyrrhonota) nests (many of which were present on the bridge during the survey), after those birds have fledged and dispersed, removal will be conducted only after bird nesting season and bat maternity season and shall be conducted by or under supervision of the qualified bat biologist. If demolition is planned to occur earlier in the year when birds will normally be nesting and bats will be raising young, then bats will be humanely evicted first, followed by installation of bird exclusion netting and/or bird deterrence methods to prevent nesting swallows and roosting bats prior to bridge demolition. <u>Trees</u> • Potential bat habitat trees, as identified by a qualified bat biologist during a tree habitat assessment conducted prior to tree removal, shall be removed only between approximately March 1, or when evening temperatures are above 45°F and rainfall less than 0.5 in in 24 hours occurs, and April 15, prior to parturition of pups. The next acceptable period is after pups become self-sufficiently volant, September 1 through about October 15, or prior to evening temperatures dropping below 45°F and onset of rainfall greater than 0.5 in in 24 hours. • Bat habitat trees shall be removed only during seasonal periods of bat activity as described above, and only after:			

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	○ Negative results from a night emergence survey conducted no more than one to two nights prior to tree removal by a qualified bat biologist, using night vision and/or IR-sensitive camera equipment and bioacoustic recording equipment; or ○ All other vegetation other than trees within the Limit of Work is removed prior to bat habitat tree removal, during seasonal periods of activity, and preferably within four days of commencing two-step removal of habitat trees; then either, ○ Two-step tree removal over two consecutive days (e.g. Tuesday and Wednesday or Thursday and Friday). With this method, small branches and small limbs containing no cavity, crevice, or exfoliating bark habitat on habitat trees, as identified by a qualified bat biologist, are removed first on Day 1 using chainsaws only (no dozers, backhoes, etc.). The following day (Day 2), the remainder of the tree is to be removed. The disturbance caused by chainsaw noise and vibration, coupled with the physical alteration of the tree, has the effect of causing colonial bat species to abandon the roost tree after nightly emergence for foraging. Removing the trees the next day prevents re-habituation and re-occupation of the altered tree. ○ Trees containing suitable potential habitat must be trimmed with chainsaws on Day 1 under initial field supervision by a qualified bat expert to ensure that the tree cutters fully understand the process and avoid incorrectly cutting potential habitat features or trees. After tree cutters have received sufficient instruction, the qualified bat expert does not need to remain on the site. • If non-habitat trees or other vegetation must be removed outside those dates, a 100-foot buffer around each habitat tree shall be observed to reduce potential of disturbance of non-volant young during maternity season or torpid bats during winter months. • In-kind replacement habitat (e.g., crevice habitat), consistent with the amount of habitat with evidence of use by bat colonies, shall be provided on the new bridge in consultation with an experienced bat biologist possessing a Memorandum of Understanding with CDFW and experience designing bat habitat. • Demolition of the old bridge shall not occur until after the new bridge is completed and replacement bat habitat has been installed.			
	Mitigation Measure BIO-5a: The following avoidance and minimization measures shall be used when work occurs on or in the vicinity of structures that may be subject to nesting by migratory birds: • Avoid Active Nesting Season. To avoid and minimize impacts to tree and shrub nesting species, the following measures will be implemented: ○ If feasible, conduct all tree and shrub removal and grading activities during the non-breeding season (generally September 1 through January 31).	Prior to and during construction activities	Mariposa County	Less than significant

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	○ If grading and tree removal activities are scheduled to occur during the breeding and nesting season (February 1 through August 31), preconstruction surveys will be performed prior to the start of Project activities. • Conduct Preconstruction Nesting Bird Surveys. If construction, grading, or other Project-related activities are schedule during the nesting season (February 1 to August 31), preconstruction surveys for other migratory bird species will take place no less than 14 days and no more than 30 days prior to the beginning of construction within 250 feet of suitable nesting habitat. ○ If the preconstruction surveys do not identify any nesting migratory bird species within areas potentially affected by construction activities, no further mitigation will be required. ○ If the preconstruction surveys do identify nesting bird species within areas that may be affected by site construction, the following measures will be implemented. • Avoid Active Bird Nest Sites. Should active nest sites be discovered within areas that may be affected by construction activities, additional measures will be implemented as described below: ○ If active nests are found, Project-related construction impacts will be avoided by establishment of appropriate no-work buffers to limit Project-related construction activities near the nest site. The size of the no-work buffer zone will be determined in consultation with the CDFW, although a 500-foot buffer will be used when possible. The no-work buffer zone will be delineated by highly visible temporary construction fencing. In consultation with CDFW, monitoring of nest activity by a qualified biologist may be required if the Project-related construction activity has potential to adversely affect the nest or nesting behavior of the bird. No Project-related construction activity will commence within the no-work buffer area until a qualified biologist and CDFW confirm that the nest is no longer active.			
	Mitigation Measure BIO-5b: The following avoidance and minimization measures shall be incorporated for bridge-nesting birds if bridge demolition or construction of the new bridge occurs during the nesting season (February 1 to August 31). Exclusionary netting shall be installed around the undersides of the existing bridge before February 1 of the construction year to prevent new nests from being formed and/or prevent the reoccupation of existing nests. Exclusionary netting may also be required during construction of the new bridge if it is completed during the breeding season. The construction contractor will do the following: • Remove all existing unoccupied nests on the bridge during the non-nesting season (September 1 to January 31).			

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	• Keep the bridge free of nests, using exclusionary netting or other approved methods, until completion of construction activities. • Inspect all listed structures for nesting activity a minimum of three days per week; no two days of inspection will be consecutive. A weekly log will be submitted to the Project biologist. The contractor will continue inspections until bridge removal and completion of construction on the new bridge. If an exclusion device were found to be ineffective or defective, the contractor will complete repairs to the device within 24 hours. If birds were found trapped in an exclusion device, the contractor will immediately remove the birds in accordance with U.S. Fish and Wildlife Service (USFWS) guidelines. • Submit for approval working drawings or written proposals of any exclusion devices, procedures, or methods to the Project biologist before installing them. • The method of installing exclusion devices will not damage permanent features of the new bridge structure. Approval by the Project biologist of the working drawings or inspection performed by the authorized Project biologist will in no way relieve the contractor of full responsibility for deterring nesting.			
Project implementation has the potential to impact riparian habitat, Bear Creek.	**Mitigation Measure BIO-6:** The following avoidance and minimization measures will be implemented prior to and during construction to avoid and minimize potential impacts on riparian habitat: • Prior to removal of any trees, an International Society of Arboriculture-certified arborist shall conduct a tree survey in areas that may be impacted by construction activities. This survey shall document tree resources that may be adversely impacted by implementation of the Project. The survey will follow standard professional practices. • Current riparian vegetation, oaks, and other native tree species will be retained to extent feasible. A tree protection zone (TPZ) shall be established around any tree or group of trees to be retained. The TPZ will be delineated by an International Society of Arboriculture-certified arborist. The TPZ shall be defined by the radius of the dripline of the tree(s) plus one foot. The TPZ of any protected trees shall be demarcated using fencing that will remain in place for the duration of construction activities. • Construction-related activities shall be limited within the TPZ to those activities that can be done by hand. No heavy equipment or machinery shall be operated within the TPZ. Grading shall be prohibited within the TPZ. No construction materials, equipment, or heavy machinery shall be stored within the TPZ. • A planting plan will be implemented as detailed in a Restoration Plan approved by the CDFW. The Restoration Plan will include performance standards for revegetation that will ensure successful restoration of the on-site riparian areas.	Prior to and during construction activities	Mariposa County	Less than significant

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	• Protective fencing shall be installed along the edge of construction areas including temporary and permanent access roads where construction will occur within 200 feet of the edge of riparian woodland habitat (as determined by a qualified biologist). The location of fencing shall be marked in the field with stakes and flagging and shown on the construction drawings. The construction specifications shall contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, trenching, grading, or other surface-disturbing activities outside of the designated construction area. Signs shall be erected along the protective fencing at a maximum spacing of one sign per 50 feet of fencing. The signs shall state: "This area is environmentally sensitive; no construction or other operations may occur beyond this fencing. Violators may be subject to prosecution, fines, and imprisonment." The signs shall be clearly readable at a distance of 20 feet and shall be maintained for the duration of construction activities in the area. • Where riparian vegetation occurs along the edge of the construction easement, the County shall minimize the potential for long-term loss of riparian vegetation by trimming vegetation rather than removing the entire plant. Trimming will be conducted per the direction of a biologist and/or certified arborist.			
Project implementation has the potential to affect waters of the U.S.	**Mitigation Measure BIO-7:** If the verified jurisdictional delineation of waters of the U.S determines that Project construction will result in the loss of waters of the U.S, the Project applicant shall obtain a Section 404 (Clean Water Act) permit for impacts to jurisdictional wetlands from the U.S. Army Corps of Engineers (Corps), and a Section 401 permit from the Regional Water Quality Control Board (RWQCB) and shall comply with all conditions of permits received. Terms of these permits will incorporate additional provisions to mitigate for the loss of waters of the U.S., including compensatory mitigation, and will ensure the "no net loss" of wetlands.	Prior to construction activities	Mariposa County	Less than significant
Cultural Resources				
Project implementation has the potential to discover unanticipated human remains during ground-disturbing activities.	**Mitigation Measure CUL-1:** *Unanticipated Discovery of Human Remains.* If human skeletal remains are uncovered during Project construction, work must immediately halt and the County Coroner must be contacted to evaluate the remains; the procedures and protocols set forth in Section 15064.5 (e)(1) of the California Environmental Quality Act (CEQA) Guidelines must be followed. If the County Coroner determines that the remains are Native American, the Project proponent will contact the Native American Heritage Commission (NAHC), in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code (PRC) 5097.98 (as amended by Assembly Bill (AB) 2641). Per PRC 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with	During construction activities	Mariposa County	Less than significant

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.			
Hazards and Hazardous Materials				
Construction activities involve reasonably foreseeable upset and accident conditions that may subject the public and environment to the release of hazardous materials.	**Mitigation Measure HAZ-1:** *Asbestos and Lead Testing.* Based on the age of the structure, the existing bridge may contain asbestos containing material (ACM) and shall be inspected by a California-licensed asbestos contractor under separate assessment during the Plans, Specifications and Estimate (PS&E) process. Additionally, pavement striping, thermoplastic paint used on roadways, and paint on the bridge can often contain lead. The potential exists for the bridge and associated features to contain lead-based paint (LBP), and they shall be addressed under separate assessment during the PS&E process. The following actions are recommended for handling and disposal lead containing materials during the preconstruction/pre-demolition phase: • A California-licensed abatement contractor will conduct a survey for asbestos and lead containing materials prior to demolition (including concrete elements) and contractor will submit a National Emission Standard for Hazardous Air Pollutants (NESHAP) notification. Per Section 14-9.02 of the Asbestos NESHAP regulation, all "demolition activity" requires written notification even if there is no asbestos present. This notification shall be typewritten and postmarked or delivered no later than ten days prior to the beginning of the asbestos demolition or removal activity. If asbestos and/or lead containing materials are found, the following will be required: o Removal, disposal, storage, and transportation of materials from the structure that contain asbestos shall be performed in compliance with SSP 14-11.16 and other federal and state regulations for hazardous waste. o Building materials associated with paint on structures, and paint on utilities shall be abated by a California-licensed abatement contractor and disposed of as a hazardous waste in compliance with Standard Special Provisions (SSP) 14-11.13 and other federal and state regulations for hazardous waste. o A Lead Compliance Plan shall be prepared by the contractor for the disposal of LBP. The grindings (which consist of the roadway material and the yellow and white color traffic stripes) shall be removed and disposed of in accordance with SSP 36-4 (Residue Containing High Lead Concentration Paints). In addition, the Lead Compliance Plan will also contain the following provision to address aerially-deposited lead: SSP 7-1.02K (6)(j)(iii) – Earth Material Containing Lead.	Prior to and during construction activities	Mariposa County	Less than significant

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	○ A California-licensed lead contractor shall be required to perform all work that will disturb any LBP as a result of planned or unplanned renovations in the Project area, including the presence of yellow traffic striping and pavement markings that may contain LBP. All such material must be removed and disposed of as a hazardous material in compliance with SSP 14-11.12.			
	Mitigation Measure HAZ-2: *Development of a Health and Safety Plan (HASP).* The construction contractor will prepare and implement a HASP for the Project. Since no known contamination has been identified within the Project site, general construction health and safety procedures will be included. The HASP shall describe appropriate procedures to follow in the event that any contaminated soil or groundwater is encountered during construction activities. Any unknown substances shall be tested, handled, and disposed of in accordance with appropriate federal, state, and local regulations.	Prior to construction activities	Mariposa County	Less than significant
Hydrology and Water Quality				
Project implementation has the potential to violate water quality standards, interfere with groundwater recharge, alter existing drainage patterns, alter existing drainage systems, contribute runoff water, and/or degrade water quality.	**Mitigation Measure HYD-1:** The County will ensure that the Project contractor complies with the requirements of a National Pollution Discharge Elimination System (NPDES) permit from the RWQCB, Central Valley Region. As part of the permit, the contractor will be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) into their construction plans, prior to initiating construction activities, identifying BMPs to be used to avoid or minimize any adverse effects before, during, and after construction to surface waters. The following BMPs will be incorporated into the Project as part of the construction specifications: • Implement appropriate measures to prevent debris, soil, rock, or other material from entering the water. Use a water truck or other appropriate measures to control dust on applicable access roads, construction areas, and stockpiles. • Properly dispose of oil or other liquids. • Fuel and maintain vehicles in a specified area that is designed to capture spills. All fueling and maintenance of vehicles and other equipment (including staging areas), will be located at least 66 feet (20 meters) from Bear Creek and any other drainages on site. • Fuels and hazardous materials will not be stored on site. • Inspect and maintain vehicles and equipment to prevent the dripping of oil or other fluids. • Schedule construction to avoid the rainy season as much as possible. Ground disturbance activities are expected to begin in the spring/summer of 2019. If rains are forecasted during construction, additional erosion and sedimentation control measures will be implemented. • Maintain sediment and erosion control measures during construction. Inspect the control measures before, during, and after a rain event.	Prior to and during construction activities	Mariposa County	Less than significant

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	• Train construction workers in stormwater pollution prevention practices. • Revegetate disturbed areas in a timely manner to control erosion.			
Noise				
Project implementation may temporarily elevate ambient noise levels during construction activities and thereby may temporarily expose persons to noise levels and/or groundborne noise levels in excess of established standards.	**Mitigation Measure NO-1:** During construction, the noise level may be temporarily elevated. To minimize the impact, all construction in or adjacent to residential areas shall follow the following procedures for noise control: Construction operations shall adhere to Caltrans standards and be limited to Monday through Friday, 7:00 AM to 8:00 PM. The following control measures shall be implemented to minimize noise and vibration disturbances at sensitive receptors during periods of construction • Use newer equipment with improved muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators, intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment shall be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.). • Utilize construction methods or equipment that will provide the lowest level of noise and ground vibration impact such as alternative low noise pile installation methods. • Turn off idling equipment. • Use and relocate, as needed, temporary noise barriers to protect sensitive receptors against excessive noise from construction activities. Noise barriers can be made of heavy plywood, or moveable insulated sound blankets. The following administrative measures shall be implemented to minimize noise and vibration disturbances at sensitive receptors during periods of construction: • Implement a construction noise and vibration-monitoring program to limit the impacts. • Plan noisier operations during times (Monday through Friday, 7:00 AM to 5:00 PM) of least sensitivity to receptors. • Keep noise levels relatively uniform and avoid impulsive noises. • Maintain good public relations with the community to minimize objections to the unavoidable construction impacts. Provide frequent activity update of all construction activities.	During construction activities	Mariposa County	Less than significant

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
Public Services				
Project implementation has the potential to result in inadequate emergency access.	**Mitigation Measure PUB-1:** *Construction Period Emergency Access Plan.* Prior to the start of construction, the contractor shall coordinate with the County Sheriff and Fire Departments and local public and private ambulance and paramedic providers in the area to prepare a Construction Period Emergency Access Plan. The Construction Period Emergency Access Plan shall identify phases of the Project and construction scheduling and shall identify appropriate alternative emergency access routes.	Prior to construction activities	Mariposa County	Less than significant
Traffic and Transportation				
Project implementation has the potential to result in inadequate traffic access.	**Mitigation Measure TRAF-1:** *Standard Traffic Management Plan.* The construction contractor for the Project shall implement a standard traffic management plan to minimize traffic disruption and ensure adequate access is maintained to surrounding properties. Temporary disruptions to access for residences in the area shall be minimized by coordinating construction activities to provide alternative access points and/or by coordinating the construction schedule with property owners.	Prior to construction activities	Mariposa County	Less than significant
Tribal Cultural Resources				
Project implementation has the potential to result in impacts to tribal cultural resources.	**Mitigation Measure TCR-1:** *Unanticipated Discovery of Tribal Cultural Resources.* If a tribal cultural resource is encountered during Project-related ground-disturbing activities, the construction contractor will cease all work within 100 feet of the find until it can be determined if the resource is significant. The contractor will notify the County and Caltrans District 10, and the resource will be avoided, if possible. Preservation-in-place is the preferred manner of mitigating impacts; however, if avoidance is not feasible, a Treatment Plan that documents the research approach and methods for data recovery will be prepared and implemented in consultation with the County, Caltrans, and with the appropriate tribal organization.	During construction activities	Mariposa County	Less than significant

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Project Location

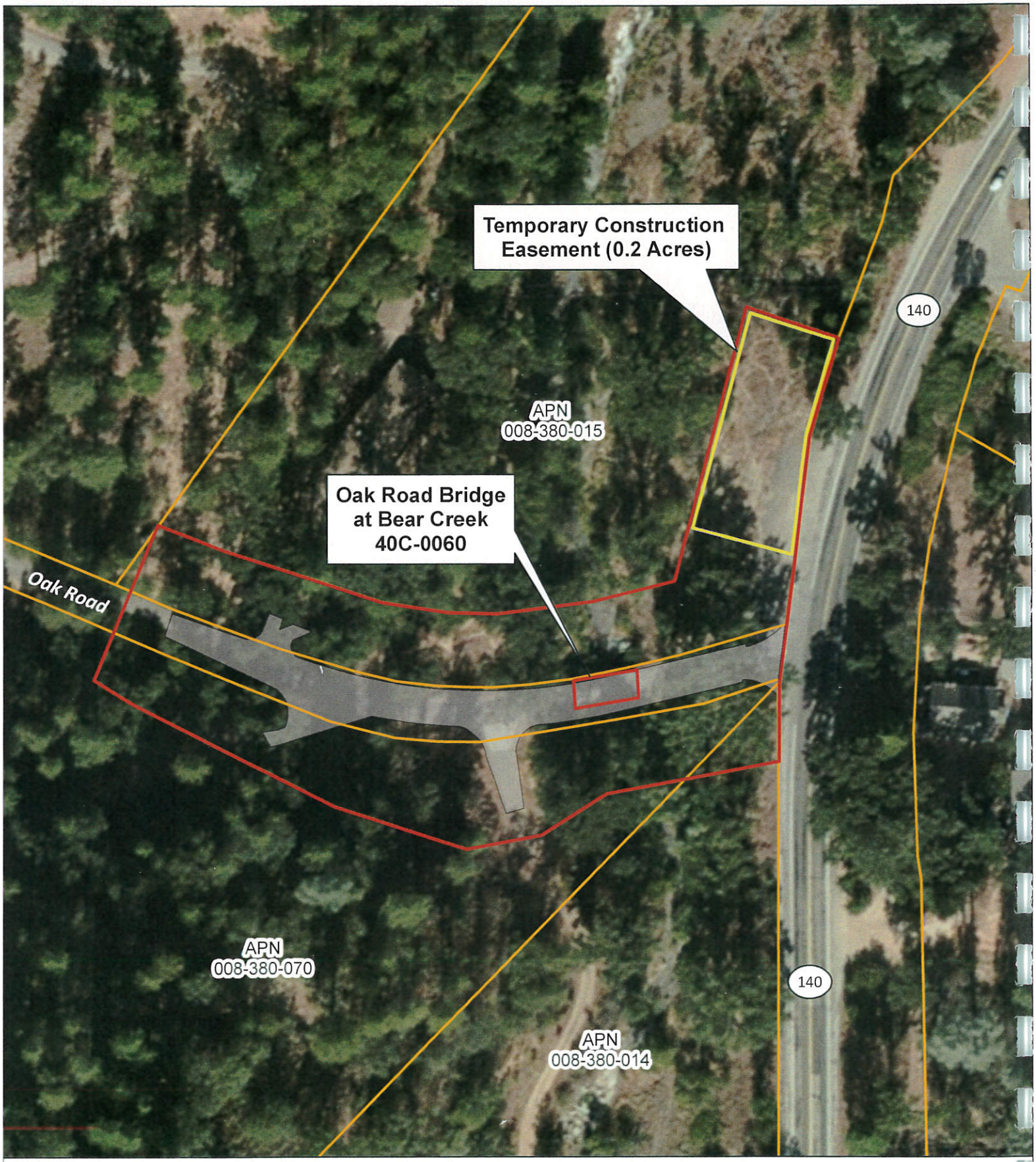
Oak Road Bridge

Bear Creek

N

0 25 50 100 Feet

drake haglan AND ASSOCIATES	Source: ESRI Online Basemap, Aerial Imagery and Open Street Map, Mariposa County Coordinate System NAD 83 State Plane California III FIPS 0402 Feet Notes: This map was created for informational and display purposes only	Oak Road Bridge (40C-0060) over Bear Creek Bridge Replacement Project Mariposa County, CA	Project Location Map	Figure 2



ADI

Project Location (Oak Road Bridge)

Proposed Roadway

Staging Oak

Oak Parcels

N

0 50 100 200 Feet

drake haglan AND ASSOCIATES

Source: ESRI Online Basemap, Aerial Imagery, Mariposa County
Coordinate System NAD 83 State Plane California III
FIPS 0402 Feet
Notes: This map was created for informational and display purposes only

Project Name:
Oak Road over Bear Creek
Bridge (40C-0060) Replacement Project
Mariposa County, CA

Area of Direct Impact

Figure 3

1.1 Purpose of the Initial Study

This document is an IS/MND prepared in accordance with CEQA, which is codified in the Public Resources Code (PRC) Section 21000 et seq and the CEQA Guidelines Title 14, Section 15000 et seq. of the California Code of Regulations (CCR). The purpose of this IS/MND is to: (1) determine whether Project implementation would result in potentially significant or significant effects on the environment, and (2) incorporate mitigation measures into the Project design, as necessary, to eliminate the Project's potentially significant or significant Project effects or reduce them to a less than-significant level. A Draft IS/MND presents the environmental analysis and substantial evidence supporting its conclusions regarding the significance of environmental impacts. Substantial evidence may include expert opinion based on facts, technical studies, or reasonable assumptions based on facts.

CEQA requires that all state and local government agencies consider the environmental consequences of projects they propose to carry out, or over which they have discretionary authority, before implementing or approving those projects. As specified in Section 15367 of the CEQA Guidelines, the Lead Agency is the public agency that has the primary responsibility for carrying out or approving a project for CEQA compliance.

This Draft IS/MND identifies the potential environmental impacts of the proposed Project to determine whether the Project may have a significant effect on the environment and identifies mitigation measures, where applicable, to reduce or avoid significant effects. This Draft IS/MND has been prepared pursuant to the CEQA and the CEQA Guidelines (14 California Code of Regulations 1500 et seq.), which require that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. Mariposa County Department of Public Works is a public agency with discretionary authority over the Project and is the Lead Agency under CEQA.

2 PROJECT DESCRIPTION

2.1 Project Purpose and Need

The Caltrans Bridge Inspection Report, dated November 2, 2013, lists the existing Oak Road Bridge as being functionally obsolete and having a sufficiency rating of 74.4 out of a possible score of 100. In addition, the existing bridge does not meet current applicable County, American Association of State Highway and Transportation Officials (AASHTO), California Department of Forestry and Fire Protection (Cal Fire), and Caltrans design criteria and standards. The existing bridge is also hydraulically deficient; it cannot pass the 50-year or 100-year storm flows.

The purpose of this Project is to remove the existing functionally obsolete structure and replace it with a new single span one lane bridge. The design will meet current structural and geometric standards, provide adequate creek hydraulic capacity, and minimize adverse impacts to Bear Creek and the surrounding forests.

2.1.1 Existing Conditions

Constructed in 1985, the existing Oak Road Bridge is a single span steel girder bridge with a deck consisting of corrugated steel plates with asphalt concrete fill. The bridge is 22-feet-long, 16.5-feet-wide, and within the existing public right-of-way easement. The curb-to-curb width is 16.1 feet, with one bi-directional travel lane with no shoulder on either side. The bridge barriers consist of a non-crash tested metal beam guard rail system.

2.1.2 Proposed Conditions

The clear width of the replacement bridge would need to meet the criteria specified in the AASHTO "A Policy on Geometric Design of Highways and Streets" manual for local rural roads as well as Cal Fire minimum clear width requirements. The minimum clear width of travel way and shoulders for a one lane bridge per AASHTO criteria is 16 feet. The proposed replacement bridge clear width, however, is 20 feet to meet Cal Fire minimum clear width requirements. The replacement bridge would accommodate a single bi-directional travel lane with shoulders.

Demolition and Construction Staging

Demolition of the existing bridge would be performed in accordance with the Caltrans Standard Specifications, modified to meet environmental permit requirements. All concrete and other debris resulting from bridge demolition would be removed from the Project site and disposed of by the contractor. The construction contractor would prepare a bridge demolition plan.

The Project staging area would be located north of Oak Road and east of the existing bridge in an area dominated by annual grassland. Tree removal is not expected in this area; however, trees may need to be trimmed to accommodate the larger pieces of equipment.

Utility Relocation

There are several utilities in the immediate vicinity of the Project site, both overhead and underground. Overhead electrical lines run through the Project site from the southeast to the northwest. These lines may need to be temporarily relocated or de-energized during construction of the replacement bridge.

Buried fiber optic and television cables run parallel to Oak Road on the east side and are attached to the existing bridge through a 6-inch and a 2-inch bridge-mounted conduit. These cables would need to be relocated to the new bridge following construction.

Right-of-Way
Additional permanent right-of-way acquisitions are not anticipated, although temporary construction easements would be required for the staging of construction equipment.

Detour
Oak Road Bridge would be closed during construction and a local street detour would be put in place to route local traffic around the Project site. A detour approximately 0.6 miles long would be established using the private road just south of the existing Oak Road Bridge, existing private creek crossing at Post Mile 28.6 for State Route (SR) 140, and SR 140 **(Figure 4)**. The low average daily traffic (ADT) vehicular volume makes this tolerable for the short, six-month window needed to construct the replacement bridge.

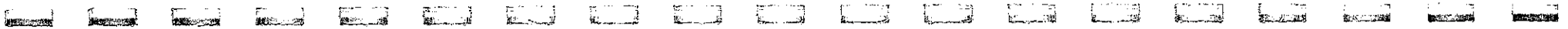
Construction Activities
Construction will consist of the following activities:

- Tree removal, grubbing and clearing to accommodate Project construction;
- Removing the existing bridge;
- Excavating and drilling (if required) for the new bridge foundations;
- Constructing the new bridge and approaches, including excavating for and placing asphalt concrete on each approach; and
- Grading and excavation work in the Mariposa Creek channel needed to construct the abutment walls of the replacement bridge and install rock slope protection.

Table 2 provides a description of the type of equipment likely to be used during the construction of the Project.

Table 1. Construction Equipment

Equipment	Construction Purpose
Drill rig	Construction of drilled pile foundations
Backhoe	Soil manipulation, drainage work, pile cap excavation
Bobcat	Fill distribution
Bulldozer/loader	Earthwork construction, clearing and grubbing
Crane	Placement of precast girders
Dump truck	Fill material delivery
Excavator	Soil manipulation
Front-end loader	Dirt or gravel manipulation
Grader	Ground leveling
Haul truck	Earthwork construction, clearing and grubbing
Roller/compactor	Earthwork construction, asphalt concrete placement
Truck with seed sprayer	Landscaping
Paver	Placement of asphalt concrete



Existing Oak Road Bridge

Existing Private Creek Crossing

Road Closure

Detour Route

Bear Creek

0 125 250 500 Feet

N

drake haglan ND ASSOCIATES	Source: ESRI Online Basemap, Aerial Imagery, Mariposa County Detour Route Coordinate System NAD 83 State Plane California III FIPS 0406 Feet; DHA, 2015 Notes: This map was created for informational and display purposes only	Oak Road Bridge (40C-0060) over Bear Creek Bridge Replacement Project Mariposa County, CA	**Detour Map**	**Figure 4**

2.1.3 Construction Sequence/Schedule and Timing

Construction is currently scheduled to start in the spring of 2019 and is anticipated to take six months to complete. All work within Bear Creek would be conducted during the dry season from June 15 to October 31.

2.2 Permits and Approvals Needed

The following permits, reviews, and approvals are required for Project construction in **Table 3** below:

Table 2. Project Permits and Approvals

Agency	Permit/Approval	Status
Caltrans/FHWA	Approval of Categorical Exclusion (CE)	Follows approval of technical studies.
Army Corps of Engineers	Section 404 Nationwide Permit	Application to follow release of IS/MND
Central Valley Regional Water Quality Control Board	Section 401 Water Quality Certification	Application to follow release of IS/MND
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement	Application to follow release of IS/MND
United States Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species	Follows approval of Biological Assessment
State Water Resource Control Board	General construction activity stormwater discharge permit	Notice of Intent filed upon contract award
Mariposa County Air Pollution Control District	Rule 401 Permit	Application to follow release of IS/MND

3 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The Project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

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

3.1 Determination: (To be completed by Lead Agency)

On the basis of this initial study:

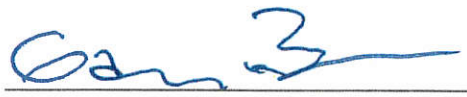
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.



Signature
Project Manager

2/20/2019
Date

GARY BROWN
Printed Name

For

4 ENVIRONMENTAL CHECKLIST

4.1 Aesthetics

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 daytime or nighttime views in the area?	☐	☐	☐	☒

4.1.1 Setting

Visual character is a description (not evaluation) of a site, and includes attributes such as form, line, color, and texture. Visual quality is the intrinsic appeal of a landscape or scene due to the combination of natural and built features in the landscape, and this analysis rates visual quality as high, moderate, or low. Visual sensitivity is the level of interest or concern that the public has for maintaining the visual quality of a particular aesthetic resource and is a measure of how noticeable proposed changes might be in a particular scene and is based on the overall clarity, distance, and relative dominance of the proposed changes in the view, as well as the duration that a particular view could be seen.

The existing visual character of the Project site can be described as rural countryside. Land use within the Project vicinity is (rural) residential. The visual quality of the Project site is considered moderate, as it is representative of the general visual character of the surrounding area. Bear Creek provides aesthetic value to the Project vicinity and provides local residents access to the undeveloped stream.

Viewer groups include Oak Road roadway users, SR 140 roadway users, and adjacent residents along Oak Road and SR 140. Viewer sensitivity at the Project site is considered low for all viewer groups since aesthetic changes to the bridge under the Project would be minimal.

4.1.2 Discussion

a) **Less-than-Significant Impact.** The Project site is located across Bear Creek in a rural residential environment. The Project site is composed of rural residential and forested woodland areas. The Project vicinity is representative of the general visual character of the area around Bear Creek, and there are no listed scenic vistas in the vicinity of the Project site. The introduction of the Project would not change the current land uses in the area and would be constructed at the same location as the existing bridge. The proposed bridge would also be slightly longer and wider to meet applicable design standard.

b) **Less-than-Significant Impact.** A review of the current Caltrans Map of Designated Scenic Routes indicates that there two officially designated scenic highways within the County, SR 140 and SR 120. The Project site is located along a stretch of SR 140 which is officially designated as state scenic highway; however, views of the Project site from the scenic highway are primarily obstructed by existing vegetation. The Project would replace a functionally obsolete bridge with a new bridge of similar size and scale, resulting in visual environment that resembles the existing visual character of the Project site. Construction of the Project would result in temporary changes in local visual conditions, such as clearing and grading at the Project site. Construction activities would last for approximately six months and then disturbed areas would be re-vegetated with native and appropriate vegetation to minimize erosion and visual contrast with existing scenic resources.

c) **Less-than-Significant Impact.** The visual character of the Project would be compatible with the existing visual character of the Project vicinity. The replacement of the new bridge and approaches would be similar in scale and design as the current bridge and road. Viewer groups are limited to nearby residents and motorists along Oak Road and SR 140. Viewer sensitivity to the proposed roadway changes would be considered low because the bridge would have low visual dominance, and views of the bridge are predominantly shielded by existing trees and vegetation.

Construction of the Project would result in temporary changes in local visual conditions, such as clearing and grading at the Project site. Any new cuts and fills would be contoured to smoothly transition into existing grades and to mimic adjacent landforms. Also, any area disturbed during construction would be revegetated with native and appropriate vegetation to minimize erosion and visual contrast with existing vegetation.

Since the Project is a replacement of an existing bridge, there would be no permanent changes to existing views. The new bridge would be slightly wider to meet current design standards. No other new structures would be added as part of the bridge replacement and the Project would include a similar bridge structure. These changes in views would not substantially degrade the existing visual character or quality of the site and its surroundings.

d) **No Impact.** The Project site is located within a rural setting where street lighting is not present. Roadway traffic is considered a source of nighttime light, but the purpose of the Project is not to increase roadway capacity, so greater numbers of vehicles would not be introduced in this area as a result of the Project. The Project would not result in any changes that introduce new sources of light and glare (i.e., billboards, street lamps, security lighting, etc.) to the vicinity of the Project site.

4.2 Agricultural and Forest Resources

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Agricultural and Forest Resources – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by 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?	☐	☐	☐	☒

4.2.1 Setting

The land within and adjacent to the Project site is classified as grazing land by the California Important Farmland Finder, designated as (rural) residential, and is zoned as mountain home. Agricultural activities do not currently occur within the vicinity of the Project. In addition, the area does not include land that is designated as prime farmland, unique farmland, or farmland of statewide importance, nor is there land under a Williamson Act contract within the Project vicinity.

4.2.2 Discussion

a) **No Impact.** Land use in the vicinity of the Project is designated as rural residential. The Project would not result in any impact or acquisitions of prime farmland, unique farmland, or farmland of statewide importance.

b) **No Impact.** There is no land in the Project site listed under the Williamson Act according to Department of Conservation. The Project would not result in any impacts to any lands covered by a Williamson Act contract.

c) **No Impact.** The Project site consists of a one lane bridge along Oak Road crossing Bear Creek. Land uses surrounding the Project site are designated as residential. The Project site is not within an area zoned for forestland or timberland.

d) **No Impact.** The Project is not located in the vicinity of any forestland and no forest conversion would occur as a result in the loss of forestland or conversion of forestland.

e) **No Impact.** As discussed above in (a) through (d), no important farmlands are located within the Project site. The Project does not propose any new land uses or the permanent conversion of existing agricultural lands or result in any other actions that would impact the adjacent agricultural lands.

4.3 Air Quality

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

4.3.1 Setting

The Project site is located in Mariposa County within the Mountain Counties Air Basin, and is under the jurisdiction of the Mariposa County Air Pollution Control District (MCAPCD).

The MCAPCD is one of 35 regional air quality districts in California and has jurisdiction over all of the County. Air quality districts are public health agencies whose mission is to improve the health and quality of life for all residents through effective air quality management strategies. Mariposa County is not part of a larger regional planning organization and is therefore responsible for regional transportation planning within its jurisdiction and preparing air quality conformity analyses, documents that are used to bring regional emissions into compliance with federal and state air quality standards pursuant to the Clean Air Act.

The Clean Air Act requires the U.S. Environmental Protection Agency (U.S. EPA) to set National Ambient Air Quality Standards (NAAQS) for major pollutants that could be detrimental to the environment and human health. There are six such "criteria" air pollutants that the U.S. EPA has set standards for: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2), particulate matter less than 10 microns in size (PM_{10}), and particulate matter less than 2.5 microns in size ($PM_{2.5}$). The State of California has set similar standards under the California Clean Air Act called the California Ambient Air Quality Standards (CAAQS). California has set CAAQS for sulfate, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles in addition to the six criteria pollutants regulated by the NAAQS. An air basin is in "attainment" (compliance) when the levels of the pollutant in that air basin are below NAAQS and CAAQS thresholds.

The Project site is located in an area that is currently in state and federal non-attainment for ozone (moderate).

4.3.2 Discussion

a) **Less-than-Significant Impact.** The purpose of the Project is to replace the existing Oak Road Bridge, to provide safe access for vehicles and meet current design standards. The Project would not increase roadway capacity or service capabilities that would induce unplanned growth or remove an existing obstacle to growth. The Project would not increase long-term traffic levels and there would be no operational impacts to air quality. Therefore, the Project would not conflict with the region's air quality management plans.

b) **Less-than-Significant Impact.** Since the Project would not add lanes or increase capacity, it would only affect local air pollutants during construction which would last for approximately six months. The Project would not affect long-term air pollutant emissions in the area or stationary air pollutant sources.

Construction

The primary concern to the MCAPCD during construction would be PM_{10} and $PM_{2.5}$ emissions from dust-generating activities. According to MCAPCD, the County is designated as unclassified attainment for the PM_{10} and $PM_{2.5}$ NAAQS.

The MCAPCD has adopted the following rule that relates to the Project, which is summarized below:

Rule 401. Any person building, altering, or replacing any source of air contaminants shall first obtain an authority to construct from the air pollution control officer. An authority to construct shall remain in effect until the permit to operate for that source for which the application was filed is either granted or denied or until termination pursuant to other provisions of this regulation.

Implementation of the required Rule 401 would ensure that Project impacts to air quality would remain less than significant.

Operations

The Project would not result in increased capacity or additional vehicle trips. The Project would not increase long-term traffic levels. There would be no impact to air quality under full operation of the Project and no mitigation measures are required.

c) **Less-than-Significant Impact.** As discussed above under Item (b), the Project would result in minimal air pollutant emissions during the short-term duration of construction. In addition, the Project would not result in any operational activities or emissions. Therefore, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard.

d) **Less-than-Significant Impact.** As noted above under Item (b), the Project would not generate substantial pollutant concentrations with implementation of the required Rule 401 and therefore would not expose sensitive receptors to substantial pollutant concentrations.

e) **Less-than-Significant Impact.** Generally, the types of projects or activities that pose potential odor problems include refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations. The Project is a bridge replacement project that is located within a rural area and would not create objectionable odors affecting a substantial number of people.

4.4 Biological Resources

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

4.4.1 Setting

The Project is located in central Mariposa County along Oak Road, where it crosses Bear Creek, approximately one mile north of Midlines. The Project is located in the Feliciana Mountains CA U.S. Geological Survey (USGS) 7.5' Quadrangle within Township 4 South, Range 18 East, Section 25.

The Project site lies in the Upper Foothills Metamorphic Belt ecological subsection, an area of gently sloping to moderately steep plateaus that are crossed by the Yuba, American, Cosumnes, Mokelumne, Stanislaus, and Tuolumne Rivers. These rivers and the north, south, and middle forks of them run in the bottoms of very steep-sided canyons that are as much as 2000 feet below the plateau surface. The elevation ranges about 2000 to 7000 feet, but is mostly below 6000 feet. Fluvial erosion and, in the river canyons, mass wasting are the main geomorphic processes. The predominant natural plant communities are mixed conifer series and, at lower elevations, ponderosa pine series. There is some white fir series

at higher elevations; canyon live oak series on very steep, rocky canyon side slopes; and mixed chaparral shrublands on steep south-facing slopes with shallow soils. The northernmost grove of trees in the giant sequoia series is in this subsection. The annual average precipitation at the National Climatic Data Center Mariposa RS, California weather station (045352) is 29.78 inches (Western Regional Climate Center [WRCC], 2017). More than 97 percent of the area's rainfall occurs between October and May (WRCC, 2017). Elevation of the study area ranges between 2,430 and 2,470 above mean sea level.

4.4.2 Data Sources/Methodology

The Oak Road over Bear Creek Bridge Replacement Natural Environment Study was prepared for the Project and is available for review at the County. An evaluation of biological resources was conducted to determine whether any special-status plant or wildlife species, or associated sensitive habitat, occurs within the Project site. Data on special-status species and habitats known in the area was obtained from state and federal agencies. Maps and aerial photographs of the Project site and surrounding areas were reviewed. Field surveys were conducted to determine the habitats present.

4.4.3 Regional Species and Habitats of Concern

Habitats of Concern

The Project site is located in the Sierra Nevada Foothills, an area with rolling hills with broad and narrow valleys transitioning into canyons and broad ridges at mid-elevations. The topography in the Project site and surrounding areas is characterized by rolling hills. The Project site is at an elevation of approximately 2,440 feet above sea level. Terrestrial habitat types in the Project site include annual grassland, blue oak-foothill pine, montane riparian, and urban (developed). Aquatic habitat types in the Project site includes Bear Creek, which is classified as intermittent riverine habitat.

Riparian habitats are sensitive natural communities because they are regulated by the California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code (CFGC) for the purpose of protecting fish and wildlife resources. Additionally, Bear Creek is considered to be waters of the U.S, which are also considered sensitive by both federal and state agencies.

Special Status Plant Species

The Project site provides suitable habitat for Yosemite onion (*Allium yosemitense*), big-scale balsamroot (*Balsamorhiza macrolepis*), Mariposa clarkia (*Clarkia biloba* ssp. *australis*), Congdon's woolly sunflower (*Eriophyllum congdonii*), Parry's horkelia (*Horkelia parryi*), Madera leptosiphon (*Leptosiphon serrulatus*), Congdon's lewisia (*Lewisia congdonii*). There are no California Natural Diversity Database (CNDDB) recorded occurrences within five miles of the Project site for any of the above-mentioned plant species. However, there may be a lack of evidence that special status plants occur within five miles of the Project site due to the private ownership of the surrounding lands; therefore, a lack of recorded observations does not necessarily preclude the presence of this species.

Special Status Aquatic and Semi-Aquatic Species

Foothill Yellow-legged Frog (FYLF) (*Rana boylii*). FYLF is designated as a state candidate for listing as threatened, as well as a species of special concern by CDFW. While Bear Creek consists of areas with a rocky cobble substrate, the creek is unlikely to provide adequate ponding depth and duration to support metamorphosis. However, Bear Creek and the surrounding upland riparian habitat could provide a potential dispersal corridor for this species. During the site visit on August 8, 2016, no FYLF were observed within the Project site.

Western Pond Turtle (*Emys marmorata*). Western pond turtle is a California species of special concern. Bear Creek does not provide suitable breeding habitat for this species as it is not a perennial water course; however, the gentle slope of the banks could provide suitable basking structure. In addition, large boulders within the stream channel also provide suitable basking structures. The lack of aquatic vegetation and small amphibians (i.e., tree frogs) would make Bear Creek unsuitable for foraging; however, it could be used as a dispersal corridor, and the surrounding upland riparian and annual grassland habitats could provide suitable nesting habitat for this species. This species was not observed during the surveys conducted on August 8, 2016.

Special Status Terrestrial Species

Bat Species. Pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis californicus*), and western red bat (*Lasiurus blossevillii*) are all California species of special concern. Oak Road Bridge, and the larger deciduous trees and snags, could provide suitable roosting habitat for pallid bat, Townsend's big-eared bat, western mastiff bat, western red bat, and other common bat species. No bats were observed during the surveys conducted on August 8, 2016.

Nesting Songbirds and Raptors. Riparian habitat associated with Bear Creek, as well as the blue oak-foothill pine and montane hardwood habitat, may provide suitable nesting habitat for common raptors such as red-shouldered hawk (*Buteo lineatus*) and red-tailed hawk (*Buteo jamaicensis*); and birds, such as tree swallows (*Tachycineta bicolor*) and sparrows, commonly nest in large trees that overhang or are in close proximity (within 0.25 miles) to aquatic habitats such as rivers, streams, and lakes, as well as in close proximity to annual grasslands and agricultural fields. The large trees within the Project site provide suitable nesting habitat due to their proximity to nest building material as well as optimal foraging habitat.

4.4.4 Discussion

a) **Less-than-Significant Impact with Mitigation.** The following provides a discussion of the potential species that could be present during construction activities, impacts to these species and associated habitat, and the mitigation measures that will be implemented to minimize the impacts of construction activities on these species and associated habitat.

Project Impacts:

Impacts to plant species could include loss of the plant species through trampling or excavation if present within the construction zone or damage to sensitive root systems, through compaction, could occur outside of the construction zone. Therefore, implementation of the Project could have a potentially significant impact on special-status plants. Implementation of **Mitigation Measure BIO-1** would reduce potential impacts to special-status plants to a less-than-significant level.

Dewatering (if necessary) and other construction activities could potentially impact FYLF and western pond turtle, if they are present in this segment of Bear Creek during Project construction. Potential impacts include direct harm to these species that could potentially come into contact with construction personnel and/or equipment, as well as exposure of FYLF and western pond turtle to increased chance of predation or physical harm if they were to become trapped in the dewatered area or were trying to escape the dewatered area. Additionally, the removal of riparian vegetation could also negatively contribute to loss of stream channel shading (i.e., increased ambient water temperature) or increased erosion.

Mortality or injury of FYLF and western pond turtle in aquatic and upland habitats could occur by crushing by construction equipment or if frogs or turtles are displaced from cover, exposing them to predators and desiccation. Trenches left open during the night could trap frogs and/or turtles moving through the construction area. Moreover, construction activities could temporarily impede the movement of juvenile and adult FYLF dispersing between breeding areas and summer refugia sites. Lastly, the movement of equipment within uplands and construction of bridge structures could crush pond turtles or nests containing eggs or young.

Noise associated with construction activities involving heavy equipment operation that occurs during the breeding season (generally between February 1 and August 31) could disturb nesting raptors and songbirds if an active nest is located near these activities. Potential impacts could include abandonment of nest sites and the mortality of young. Any disturbance that causes nest abandonment and subsequent loss of eggs or developing young at active nests located near the Project area would violate the California Endangered Species Act (CESA) (CFGC Sections 2800, 3503, and 3503.5) and the Migratory Bird Treaty Act (MBTA).

In addition, the removal of trees within these habitats could potentially impact nesting raptors and songbirds if they begin nesting prior to construction. Construction-related activities could directly affect active nest sites through tree removal or cause indirect impacts such as nest abandonment.

Demolition of the existing structure and tree removal would remove potentially suitable bat roosting habitat. If bats are roosting under the bridge at the time of demolition or in trees during grubbing and clearing activities, there is the potential to result in mortality to individual bats. In addition, if bats are roosting under the existing bridge, they will have to relocate to another suitable roost site potentially exposing them to increased stress and chance of predation.

Implementation of **Mitigation Measure BIO-2** and **Mitigation Measure BIO-3** would ensure that impacts to special-status aquatic and semi-aquatic wildlife species would be less than significant.

Implementation of **Mitigation Measure BIO-4,** and **Mitigation Measures BIO-5a** and **BIO-5b** would ensure that impacts to special-status terrestrial wildlife species would be less than significant.

b) **Less-than-Significant Impact with Mitigation.** Montane riparian habitat occurs along Bear Creek. Montane riparian habitat intergrades with blue oak/foothill pine habitat on the southern side of Bear Creek, west of Oak Road. Characteristic species that comprise the upper story of riparian habitat within the Project site include black willow. The understory consists of dense shrubs and herbaceous species, including mugwort (*Artemisia douglasiana*), wild parsnip (*Pastinaca sativa*), Himalayan blackberry (*Rubus armeniacus*), and stinging nettle (*Urtica dioica*). Tall flatsedge (*Cyperus eragrostis*), rough cocklebur (*Xanthium strumarium*), rabbitsfoot grass (*Polypogon monospeliensis*), Himalayan blackberry, and sandbar willow (*Salix exigua*) occur in riparian habitat at the transition zone between riparian and riverine habitat.

The construction of the new bridge and approaches would result in permanent direct impacts to montane riparian habitat, as well as understory herbaceous species. The loss of riparian vegetation, including willow thickets, can have adverse effects on aquatic habitat in Bear Creek. Riparian habitat reduces sedimentation and erosion along stream banks as well as providing an

important movement corridor for wildlife, overhanging canopies provide shade and riparian vegetation offers habitat for invertebrates that are a source of food for aquatic and terrestrial life. Implementation of **Mitigation Measure BIO-6** would ensure that impacts to riparian habitat, a sensitive natural community, would be less than significant.

c) **Less-than-Significant Impact with Mitigation.** Bear Creek is considered to be waters of the U.S and therefore falls under the jurisdiction of the U.S Army Corps of Engineers (Corps) per Section 404 of the Clean Water Act. During the field study, observations regarding vegetation, soils, and hydrology were noted. Approximately 0.04 acres of jurisdictional waters of the U.S. were identified within the Project site and include Bear Creek. Although Project construction would implement the requirements of the General Construction National Pollution Discharge Elimination System (NPDES) permit from the Central Valley Regional Water Quality Control Board (RWQCB), the Project could result in other direct and indirect impacts to waters of the U.S. Implementation of **Mitigation Measure BIO-7** would reduce potential impacts to less than significant.

d) **Less-than-Significant Impact.** The Project would not substantially interfere 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. The Project site is not located within an established native resident or migratory wildlife corridor or wildlife nursery site. However, as discussed above, Bear Creek may provide a movement corridor for wildlife to disperse. Construction noise could temporarily alter foraging patterns of resident wildlife species and temporarily disrupt wildlife movement within the Project site. However, the disturbance would only occur during Project construction and the disruption of wildlife movement would be temporary in nature.

e) **Less-than-Significant Impact.** There are currently no tree preservation policies established for Mariposa County. While a formal tree survey has not been conducted for the Project, native oak and other riparian tree species were observed during the field visit along the banks of Bear Creek and in the upland areas. Trees that need to be removed during Project construction to accommodate new roadway approaches will be replaced at a ratio consistent with Caltrans policy. Construction activities may occur within the dripline of native oak trees or other riparian trees. Work within the dripline of trees may cause permanent damage to the root system and the subsequent loss of the tree. The Project proposes to revegetate areas of temporary disturbance within the Project footprint with native riparian vegetation to minimized impacts to the montane riparian forest. Tree avoidance and compensation measures as set forth below would reduce or avoid impacts to oaks and other riparian trees to a less-than-significant level.

f) **No Impact.** The Project is currently not located within the boundaries of any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

4.4.5 Mitigation Measures

Mitigation Measure BIO-1: A qualified biologist shall conduct a preconstruction survey for special-status plant species within 30 days prior to construction. If special-status plant species are not found, then no further measures are necessary. If special-status plant species are found in the Project site, CDFW will be notified at least 10 days prior to dewatering or construction impacts in the vicinity of any special-status plant species in accordance with the California Native Plant Protection Act of 1977 (CFGC Section 1900-1913) to allow sufficient time to transplant the individuals to a suitable location.

Mitigation Measure BIO-2: The following avoidance and minimization efforts shall be implemented in order to reduce potential Project effects to FYLF:

- A qualified biologist will conduct a preconstruction survey within 24 hours prior to the start of construction activities within the riparian and aquatic habitat in the project impact area (PIA). The Project proponent shall submit the name and credentials of the Project biologist(s) to CDFW for review and approval at least 15 days prior to the onset of construction activities.
- A qualified biologist will monitor any vegetation removal in Bear Creek. The biologist will monitor the installation of water diversion structures placed in Bear Creek.
- The upstream and downstream limits of the Project will be flagged and/or signed to prevent the encroachment of construction personnel and equipment into any sensitive areas during Project work.
- Prior to construction, environmental awareness training will be conducted for construction personnel to brief them on how to recognize FYLF. Construction personnel shall also be informed that if a FYLF is encountered in the work area, construction shall stop and CDFW contacted for guidance. A training log sign-in sheet will be maintained.
- If FYLF are found at any time during Project work, construction will stop and CDFW will be contacted immediately for further guidance.
- Staging areas as well as fueling and maintenance activities shall be a minimum of 100 feet from riparian or aquatic habitats. The Project proponent will prepare a spill prevention and clean-up plan.
- The Project will administer best management practices (BMPs) to protect water quality and control erosion.
- If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters.
- Upon completion of construction activities, any barriers to flow shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

Mitigation Measure BIO-3: The following avoidance and minimization efforts shall be implemented to reduce potential Project effects to western pond turtle:

- If dewatering is necessary, the construction area shall be dewatered prior to construction activities. CDFW shall be notified prior to dewatering activities.
- No more than two weeks prior to the commencement of ground-disturbing activities, the County shall retain a qualified biologist to perform surveys for western pond turtle within suitable aquatic and upland habitat within the Project site. Surveys will include western pond turtle nests as well as individuals. The biologist (with the appropriate agency permits) will temporarily move any identified western pond turtles upstream of the construction area, and temporary barriers will be placed around the construction area to prevent ingress. Construction will not proceed until the work area is determined to be free of turtles. The results of these surveys will be documented in a technical memorandum that will be submitted to CDFW (if turtles are documented).
- Standard construction BMPs shall be implemented throughout construction, in order to avoid and minimize adverse effects to the water quality within the biological study area (BSA).

Mitigation Measure BIO-4: The following provides methods and seasonal constraints to prevent direct mortality to bats roosting underneath or within the existing bridge or within the trees within the Project site:

Bridge

- Prior to bridge demolition, humane exclusion and eviction of bats from expansion joints, behind the utility channels, and all weep holes will be needed to prevent direct mortality of bats. Humane exclusion and eviction of bats must occur only during seasonal periods of bat activity when no non-volant young or overwinter bats are present so that no bats are trapped inside the roost features. In this region, the first annual appropriate season to conduct humane eviction is between approximately March 1 (or after evening temperatures rise above 45°F, and less than 0.5-inch rainfall in 24 hours occurs) and April 15 (after which time females begin giving birth to pups). The next annual season is after maternity season and prior to winter torpor or hibernation; September 1 through about October 15 (or before evening temperatures fall below 45°F, and prior to greater than 0.5-inch rainfall within 24 hours).
- Under guidance of a qualified bat biologist experienced with humane bat eviction procedures on bridges, humane bat exclusion and eviction shall be conducted by an experienced bat exclusion contractor or by the bridge contractor or subcontractor. Humane exclusion and eviction consist of daytime installation of blockage materials and one-way exits attached to the concrete that will permit bats to exit during nightly feeding activities, but not allow reentry into the roost feature. These one-way exits must be made and attached so that they can remain in place until bridge demolition occurs; however, if demolition is delayed, regular monitoring of exclusion blockage materials and one-way exit eviction materials will be required, and repairs made as needed.
    - Blockage materials for the expansion joints shall consist of foam pipe insulation, cut to fit tightly into the expansion joint opening at the bottom and sides of soffits, with sufficient numbers of one-way exits installed to permit evacuation of the entire expansion joint by all bats. One-way exits shall consist of 14-inch-wide aluminum roll flashing formed into eight- to 10-inch-long rectangles, with bent top flanges for attachment to the concrete surface of the bridge using Sikaflex brand polyurethane construction adhesive and Gorilla brand adhesive tape. The bottom portion of the aluminum flashing rectangles shall be fitted with fiberglass window screen mesh using Gorilla brand adhesive tape to form an extension chute that will prevent reentry by bats through the open bottom of the flashing rectangular one-way exit. The number of one-way exits installed at each roost location shall be sufficient to allow complete evacuation of all bats.
    - Because bats may roost in abandoned cliff swallow (*Petrochelidon pyrrhonota*) nests (many of which were present on the bridge during the survey) after those birds have fledged and dispersed, removal shall be conducted only after bird nesting season and bat maternity season and shall be conducted by or under supervision of the qualified bat biologist. If demolition is planned to occur earlier in the year when birds will normally be nesting and bats will be raising young, then bats shall be humanely evicted first, followed by installation of bird exclusion netting and/or bird deterrence methods to prevent nesting swallows and roosting bats prior to bridge demolition.

Trees

- Potential bat habitat trees, as identified by a qualified bat biologist during a tree habitat assessment conducted prior to tree removal, shall be removed only between approximately March 1, or when evening temperatures are above 45°F and rainfall less than 0.5 inches in 24 hours occurs, and April 15, prior to parturition of pups. The next acceptable period is after pups become self-sufficiently volant – September 1 through about October 15, or prior to

evening temperatures dropping below 45°F and onset of rainfall greater than 0.5 inch in 24 hours.

- Bat habitat trees shall be removed only during seasonal periods of bat activity as described above, and only after:
    - Negative results from a night emergence survey conducted no more than one to two nights prior to tree removal by a qualified bat biologist, using night vision and/or IR-sensitive camera equipment and bioacoustic recording equipment; or
    - All other vegetation other than trees within the Limit of Work is removed prior to bat habitat tree removal, during seasonal periods of activity, and preferably within four days of commencing two-step removal of habitat trees; then either
    - Two-step tree removal over two consecutive days (e.g., Tuesday and Wednesday, or Thursday and Friday). With this method, small branches and small limbs containing no cavity, crevice, or exfoliating bark habitat on habitat trees, as identified by a qualified bat biologist, are removed first on Day 1, using chainsaws only (no dozers, backhoes, etc.). The following day (Day 2), the remainder of the tree is to be removed. The disturbance caused by chainsaw noise and vibration, coupled with the physical alteration of the tree, has the effect of causing colonial bat species to abandon the roost tree after nightly emergence for foraging. Removing the trees the next day prevents re-habituation and re-occupation of the altered tree.
    - Trees containing suitable potential habitat must be trimmed with chainsaws on Day 1 under initial field supervision by a qualified bat expert to ensure that the tree cutters fully understand the process and avoid incorrectly cutting potential habitat features or trees. After tree cutters have received sufficient instruction, the qualified bat expert does not need to remain on the site.
- If non-habitat trees or other vegetation must be removed outside those dates, a 100-foot buffer around each habitat tree shall be observed to reduce potential of disturbance of non-volant young during maternity season, or torpid bats during winter months.
- In-kind replacement habitat (e.g., crevice habitat) consistent with the amount of habitat with evidence of use by bat colonies shall be provided on the new bridge in consultation with an experienced bat biologist possessing a Memorandum of Understanding with CDFW and experience designing bat habitat.
- Demolition of the old bridge shall not occur until after the new bridge is completed and replacement bat habitat has been installed.

Mitigation Measure BIO-5a: The following avoidance and minimization measures shall be used when work occurs on or in the vicinity of structures that may be subject to nesting by migratory birds.

- **Avoid Active Nesting Season.** To avoid and minimize impacts to tree and shrub nesting species, the following measures will be implemented:
    - If feasible, conduct all tree and shrub removal and grading activities during the nonbreeding season (generally September 1 through January 31).
    - If grading and tree removal activities are scheduled to occur during the breeding and nesting season (February 1 through August 31), preconstruction surveys will be performed prior to the start of Project activities.
- **Conduct Preconstruction Nesting Bird Surveys.** If construction, grading, or other Project-related activities are schedule during the nesting season (February 1 to August 31), preconstruction surveys for other migratory bird species will take place no less than 14 days and no more than 30 days prior to the beginning of construction within 250 feet of suitable nesting habitat.

- If the preconstruction surveys do not identify any nesting migratory bird species within areas potentially affected by construction activities, no further mitigation will be required. If the preconstruction surveys do identify nesting bird species within areas that may be affected by site construction, the following measures will be implemented.

- **Avoid Active Bird Nest Sites.** Should active nest sites be discovered within areas that may be affected by construction activities, additional measures will be implemented as described below:
  - If active nests are found, Project-related construction impacts will be avoided by establishment of appropriate no-work buffers to limit Project-related construction activities near the nest site. The size of the no-work buffer zone will be determined in consultation with the CDFW, although a 500-foot buffer will be used when possible. The no-work buffer zone will be delineated by highly visible temporary construction fencing. In consultation with CDFW, monitoring of nest activity by a qualified biologist may be required if the Project-related construction activity has potential to adversely affect the nest or nesting behavior of the bird. No Project-related construction activity will commence within the no-work buffer area until a qualified biologist and CDFW confirms that the nest is no longer active.

Mitigation Measure BIO-5b: The following avoidance and minimization measures shall be incorporated for bridge-nesting birds if bridge demolition or construction of the new bridge occurs during the nesting season (February 1 to August 31). Exclusionary netting shall be installed around the undersides of the existing bridge before February 1 of the construction year to prevent new nests from being formed and/or prevent the reoccupation of existing nests. Exclusionary netting may also be required during construction of the new bridge if it is completed during the breeding season. The construction contractor will do the following:

- Remove all existing unoccupied nests on the bridge during the non-nesting season (September 1 through January 31).
- Keep the bridge free of nests, using exclusionary netting or other approved methods, until completion of construction activities.
- Inspect all listed structures for nesting activity a minimum of three days per week; no two days of inspection will be consecutive. A weekly log will be submitted to the Project biologist. The contractor will continue inspections until bridge removal and completion of construction on new bridge. If an exclusion device were found to be ineffective or defective, the contractor will complete repairs to the device within 24 hours. If birds were found trapped in an exclusion device, the contractor will immediately remove the birds in accordance with U.S. Fish and Wildlife Service (USFWS) guidelines.
- Submit for approval working drawings or written proposals of any exclusion devices, procedures, or methods to the Project biologist before installing them.
- The method of installing exclusion devices will not damage permanent features of the new bridge structure. Approval by the Project biologist of the working drawings or inspection performed by the authorized Project biologist will in no way relieve the contractor of full responsibility for deterring nesting.

Mitigation Measure BIO-6: The following avoidance and minimization measures will be implemented prior to and during construction to avoid and minimize potential impacts on riparian habitat.

- Prior to removal of any trees, an International Society of Arboriculture-certified arborist shall conduct a tree survey in areas that may be impacted by construction activities. This survey shall document tree resources that may be adversely impacted by implementation of the Project. The survey will follow standard professional practices.
- Current riparian vegetation, oaks, and other native tree species will be retained to extent feasible. A tree protection zone (TPZ) shall be established around any tree or group of trees to be retained. The TPZ will be delineated by an International Society of Arboriculture-certified arborist. The TPZ shall be defined by the radius of the dripline of the tree(s) plus one foot. The TPZ of any protected trees shall be demarcated using fencing that will remain in place for the duration of construction activities.
- Construction-related activities shall be limited within the TPZ to those activities that can be done by hand. No heavy equipment or machinery shall be operated within the TPZ. Grading shall be prohibited within the TPZ. No construction materials, equipment, or heavy machinery shall be stored within the TPZ.
- A planting plan will be implemented as detailed in a Restoration Plan approved by the CDFW. The Restoration Plan will include performance standards for revegetation that will ensure successful restoration of the on-site riparian areas.
- Protective fencing shall be installed along the edge of construction areas including temporary and permanent access roads where construction will occur within 200 feet of the edge of riparian woodland habitat (as determined by a qualified biologist). The location of fencing shall be marked in the field with stakes and flagging and shown on the construction drawings. The construction specifications shall contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, trenching, grading, or other surface-disturbing activities outside of the designated construction area. Signs shall be erected along the protective fencing at a maximum spacing of one sign per 50 feet of fencing. The signs shall state: "This area is environmentally sensitive; no construction or other operations may occur beyond this fencing. Violators may be subject to prosecution, fines, and imprisonment." The signs shall be clearly readable at a distance of 20 feet and shall be maintained for the duration of construction activities in the area.
- Where riparian vegetation occurs along the edge of the construction easement, the County shall minimize the potential for long-term loss of riparian vegetation by trimming vegetation rather than removing the entire plant. Trimming will be conducted per the direction of a biologist and/or Certified Arborist.

Mitigation Measure BIO 7: If the verified jurisdictional delineation of waters of the U.S determines that Project construction will result in the loss of waters of the U.S, the Project applicant shall obtain a Section 404 (Clean Water Act) permit for impacts to jurisdictional wetlands from the Corps and a Section 401 permit from the RWQCB and shall comply with all conditions of permits received. Terms of these permits will incorporate additional provisions to mitigate for the loss of waters of the U.S., including compensatory mitigation, and will ensure the "no net loss" of wetlands.

4.5 Cultural Resources

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐

4.5.1 Setting

A cultural resource is a broad term that includes prehistoric, historic, and traditional cultural properties that reflect the physical evidence of past human activity across the landscape. Cultural resources, along with prehistoric and historic human remains and associated grave-goods, must be considered under various federal, state, and local regulations including CEQA, and the National Historic Preservation Act of 1966 (NHPA). Cultural resources that are listed on, or eligible for inclusion in, the National Register of Historic Places (NRHP) are also considered eligible for listing in the California Register of Historical Resources (CRHR). Those cultural resources that are listed in or eligible for inclusion in the CRHR are referred to as historical resources. To be considered a historical resource, or "historically significant," the resource must meet the criteria for listing in the CRHR, which include the following:

a) Is associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
b) Is associated with the lives of persons important to our past;
c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or
d) Has yielded, or may likely to yield, important information in prehistory or history.

A substantial adverse change in the significance of a historical resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter those physical characteristics of a historical resource that convey its significance and qualify it for inclusion in the CRHR or in a local register or survey that meets the requirements of PRC Sections 5020.1(k) and 5024.1(g).

In addition to meeting one or more of the above criteria, resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to

convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (California Office of Historic Preservation, 2005).

Far Western Anthropological Research Group, Inc. (Far Western) completed a cultural resources investigation for the Project that included a records search at the California Historical Resources Information System, archival research, Native American consultation, and pedestrian survey. Results of the investigation show no known archaeological or historical resources in the Project area.

Paleontological resources are the fossilized remains of organisms that are preserved in the geologic record. Fossils are considered a nonrenewable resource that are protected by federal, state, and local environmental laws and regulations. According to the Society of Vertebrate Paleontology standards and guidelines, sedimentary rock units with a high potential for containing significant nonrenewable paleontological resources are those within which vertebrate or significant invertebrate fossils have been previously determined to be present, or likely to be present. The potential paleontological importance of the Project area can be assessed by identifying the rock units that are over 10,000 years old within the underlying landform. An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved, and it meets at least one of the following criteria:

- A type specimen (i.e., the individual from which a species or subspecies has been described);
- A member of a rare species;
- A species that is part of a diverse assemblage;
- A skeletal element different from, or a specimen more complete than, those now available for its species;
- A complete specimen; or
- At least 10,000 years or older.

4.5.2 Discussion

a) **Less-than-Significant Impact.** Bridge No. 40C-0060 over Bear Creek was built in 1985 and was previously evaluated by Caltrans and determined to be ineligible for inclusion in the NRHP and is not considered a historical resource for the purposes of CEQA. No historical resources were identified during record search or field survey of the Project area; therefore, construction-related impacts on historical resources would be less than significant.

b) **Less-than-Significant Impact.** According to the record search and intensive pedestrian survey, no archaeological resources were identified within the Project area, and the Project area is designated as being a low sensitivity area for buried archaeological deposits. Consultation with the Native American Heritage Commission (NAHC) and local tribe representatives of the North Fork Mono Tribe, North Fork Rancheria of Mono Indians, Picayune Rancheria of Chukchansi Indians, and Southern Sierra Miwuk Nation also failed to identify sacred lands or culturally sensitive areas within the Project area. Therefore, it is unlikely that construction activities associated with the Project would result in accidental discovery of archaeological resources. This impact would be less than significant on archeological resources.

c) **No Impact.** Search of the University of California Museum of Paleontology (UCMP) collections database identified five paleontological specimens in the County: three Quaternary vertebrate fossils and one plant fossil near the town of Hornitos, approximately 18 miles southwest of the Project, and one Jurassic vertebrate near MClure Reservoir, approximately 18 miles west

(UCMP, 2018). The entire Project area is mapped within Jurassic period strongly metamorphosed volcanic rock of marine origin that includes basalt, andesite, greenstone, chert, and volcanic breccia. These geologic formations are not known to contain fossil remains and are not considered geologically unique. There would be no impact on unique geological features or paleontological resources as a result of the Project.

d) **Less-than-Significant Impact with Mitigation.** Based upon a records search, no human remains are known to exist within the Project area. In the unlikely event that human remains are discovered, work within the area will be stopped and the County Coroner will be notified immediately. Work would only resume after the investigation and in accordance with any requirements and procedures imposed by the County Coroner. In the event that the bone most likely represents a Native American interment, the NAHC would be notified so the most likely descendants can be identified and appropriate treatment can be implemented. Therefore, with the incorporation of this measure, the Project would not result in any significant impacts with respect to disturbing any human remains, including those interred outside of formal cemeteries. To ensure a less-than-significant impact in the event of an accidental discovery, **Mitigation Measure CUL-1** shall be implemented.

4.5.3 Mitigation Measures

Mitigation Measure CUL-1: *Unanticipated Discovery of Human Remains.* If human skeletal remains are uncovered during Project construction, work must immediately halt and the County Coroner must be contacted to evaluate the remains; the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines must be followed. If the County Coroner determines that the remains are Native American, the Project proponent will contact the NAHC in accordance with Health and Safety Code Section 7050.5, subdivision (c), and PRC 5097.98 (as amended by AB 2641). Per PRC 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

4.6 Geology, Soils, and Seismicity

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Geology, Soils and Seismicity –Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.) ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

4.6.1 Setting

The Project is located in Upper Paleozoic-age rock of the Pennsylvanian system.

The Soil Survey of Mariposa County, California identified two soil map units or soil types in the Project site (U.S. Department of Agriculture (USDA), 2015).

Boomer loam, 15 to 50 percent slopes. This is a moderately well to well-drained soil formed in material weathered from metavolcanic rock, with moderately slow permeability. It is not a hydric soil and has a moderate corrosion potential. At the site, this soil type has a soil erosion potential of approximately 0.54 tons per acre per year.

Josephine gravelly loam, 30 to 50 percent slopes. This is a well-drained soil formed from altered sedimentary and extrusive igneous rocks, with moderately slow permeability. It is not a hydric soil and has a moderate corrosion potential. At the site, this soil type has a soil erosion potential of approximately 0.25 tons per acre per year.

4.6.2 Discussion

a.i-a.iv) **Less-than-Significant Impact.** The major feature at the Project site is Bear Creek and the existing Oak Road Bridge. The area surrounding the Project site is composed of rural residential developments and forested woodland. According to the USGS Earthquake Hazards Program (2014), there are no active faults in the vicinity of the Project site. According to the Department of Conservation, the Project site is not located within a delineated Alquist-Priolo Earthquake Fault Zone (CDC, 2015).

Liquefaction of granular soils can be caused by strong vibratory motion due to earthquakes. Soils that are highly susceptible to liquefaction are medium to fine-grained, loose, granular and saturated at depths of less than 50 feet below the ground surface. Liquefaction of soils causes surface distress, loss of bearing capacity, and settlement of structures that are founded on the soils. The Project is located on Boomer and Josephine soil series, which have cobbly loam and gravelly loam textures, respectively. The probability of soil liquefaction taking place on the Project site is considered to be low to moderate.

The seismic hazard most likely to impact the Project site is ground shaking and landslide. The Project site includes the gently sloping banks of Bear Creek. Strong seismic ground shaking could contribute to the potential landslide activities within the Project site, but this is unlikely since there are no known active faults within the vicinity. According to the California Department of Conservation (CDC), the Project site is not located within a delineated Landslide Zone (CDC, 2015).

The Project is a bridge replacement and would not expose additional people or structures to substantial adverse effects. The new bridge would comply with the 2016 California Building Code, which would minimize the potential effects of ground shaking.

b) **Less-than-Significant Impact.** The Project involves removing the existing bridge and constructing a new bridge. Construction activities would involve earth moving activities. Construction of abutment areas is anticipated to occur when the water level in the creek is at its lowest. However, if water is present during construction, the work area would be dewatered through a creek diversion, which would help minimize transport of sediments during construction. The creek diversion system and subsequent site dewatering would be designed in conformance with County specifications and regulations as required by the RWQCB, CDFW, and the USFWS. The Project site covers a relatively small area and will not result in substantial loss of topsoil. Project operations would not result in a significant increase in the potential for soil erosion over existing conditions. With adherence to the California Building Code and County Grading Ordinance (Ordinance 1025, Amended, 02/21/2006), potential erosion impacts from construction activities would be less than significant.

c) **Less-than-Significant Impact.** According to the Department of Conservation, the Project is not located within a delineated Landslide Zone (CDC, 2015). The Project site does not have loose sandy soil or a shallow water table, nor does it contain soils that would be susceptible to lateral spreading, liquefaction, or collapse. The banks of Bear Creek are gently sloping and contain vegetation. The potential for landslides along the banks of Bear Creek within the Project site is low. With adherence to all applicable codes and regulations, including the 2016 California Building Code, the Project's impacts associated with on or off-site landslide would be minimized.

d) **Less-than-Significant Impact.** Expansive soils are those possessing clay particles that react to moisture changes by shrinking (when dry) or swelling (when wet). The extent of shrinking and swelling is influenced by the environment, including the extent of wet or dry cycles, and by the amount of clay in the soil. This physical change in the soils can react unfavorably with building foundations, concrete walkways, swimming pools, roadways, and masonry walls. The Project site consists of cobbly loam and gravelly loam soils which do not have a high shrink-swell potential. The Project would replace the existing Oak Road Bridge and would not expose life or properties to adverse effects associated with expansive soil.

e) **No Impact.** The Project does not involve the connection to sewer systems or septic tanks as part of the proposed bridge replacement.

4.7 Greenhouse Gas Emissions

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

4.7.1 Setting

California's primary legislation for reducing greenhouse gas emission is the California Global Warming Solutions Act (Assembly Bill (AB) 32). The County has not adopted a Climate Action Plan at the publish date of this environmental document.

4.7.2 Discussion

a, b) **Less-than-Significant Impact.** The purpose of the Project is to replace the existing structurally deficient Oak Road Bridge over Bear Creek to provide safe access for vehicles and to meet current design standards. Consequently, the Project is considered small, short-term in nature, and would not generate substantial air quality (including greenhouse gas emission) pollutant concentrations as discussed under the Air Quality section. As the Project would not include additional through lanes, the Project would not increase roadway facilities or service capabilities that would induce unplanned growth or remove an existing obstacle to growth. The Project would not increase long-term traffic levels and there would be no operational impacts associated with greenhouse gas emissions.

4.8 Hazards and Hazardous Material

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

4.8.1 Setting

An Initial Site Assessment (ISA) was prepared for the Project and completed in September 2017 (Caltrans, 2017). The results of the ISA are incorporated into the discussion of the Project impacts below. The ISA was performed in general conformance with the scope and limitations of ASTM Practice E1527-05. No recognized environmental conditions (RECs), as defined in ASTM Practice E1527-05, were observed during a site visit or by the Environmental Data Resources, Inc. (EDR) record search in connection with the Project site.

Avoidance, minimization, and/or mitigation measures are proposed as part of the Project. These strategies are intended to address potential impacts as follows:

- Impacts associated with the presence of asbestos containing materials (ACMs) and lead-based paint (LBP) due to the age and demolition of the existing bridge.

4.8.2 Discussion

a) **Less-than-Significant Impact.** Construction of the Project would potentially require the use of various types and quantities of hazardous materials. Hazardous materials that are typically used during construction include, but are not limited to, hydraulic oil, diesel fuel, grease, lubricants, solvents, and adhesives. Although equipment used during construction activities could contain various hazardous materials, these materials would be used in accordance with the manufacturer's specifications and all applicable regulations. Operation of the Project would not involve the routine storage or use of hazardous materials.

b) **Less-than-Significant Impact with Mitigation.** As stated above, if implemented, the Project has the potential to use a variety of hazardous materials. These materials would be stored, handled, and transported per federal, state, and local regulatory requirements. Additionally, an ISA was prepared to support this environmental document. Avoidance, minimization, and/or mitigation measures are proposed as part of the Project for potential ACMs and LBP containing soil that may be present at the Project site.

Asbestos: New uses of ACMs were banned by the U.S. EPA in 1989. Revisions to regulations issued by the Occupational Safety and Health Administration (OSHA) on June 30, 1995, require that all thermal systems insulation, surfacing materials, and resilient flooring materials installed prior to 1981 be considered presumed ACMs and treated accordingly. To rebut the designation as ACM, OSHA requires that these materials be surveyed, sampled, and assessed in accordance with 40 CFR 763 (Asbestos Hazard Emergency Response Act (AHERA)). Potential ACMs have also been documented in the rail shim sheet packing, bearing pads, support piers, and expansion joint material of bridges. The Caltrans Historic Bridge Inventory indicates that the Oak Road Bridge at Bear Creek was built in 1985. Therefore, it is unlikely that ACMs would be discovered at the Project site during construction.

Lead-Based Paint: Lead has been used in commercial, residential, roadway, and ceramic paint; in electric batteries and other devises; as a gasoline additive; for weighting; in gunshot; and other purposes. It is recognized as toxic to human health and the environment and is widely regulated in the United States. Structures constructed prior to 1978 are presumed to contain LBP unless proven otherwise, although structures constructed after 1978 may also contain LBP. Due to the construction age of the existing structure, the presence of pavement striping and thermoplastic paint on roadways may also be of concern due to the possible use of LBP. Therefore, during construction, building materials associated with the pavement striping yellow paint should be abated by a California-licensed abatement contractor and disposed of as a hazardous waste

Implementation of **Mitigation Measures HAZ-1** and **HAZ-2** would be required to ensure there would not be 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 and reduce the impact to a less-than-significant level.

c) **No Impact.** The Project site is not located within 0.25 miles of a school. The Project site is located approximately 5 miles north of Mariposa County High School and Mariposa County Elementary School.

d) **No Impact.** An ISA prepared for the Project included an extensive database records search for the Project site and properties within a one-mile radius of the Project site. The ISA concluded that the Project site was not identified in any of the databases searched. No site within the search radius was identified to have any recognized environmental conditions that may result in a significant hazard to the public or the environment.

e) **No Impact.** There are no airports within 2 miles of the Project site. The nearest airport to the Project is the Mariposa-Yosemite Airport located approximately 7 miles southwest of the Project site. Mariposa-Yosemite Airport is a County-owned public-use facility located northwest of the City of Mariposa. The Project is not located within an adopted airport land use plan.

f) **No Impact.** There are no private airstrips within 2 miles of the Project site. The nearest private airstrip to the Project is the Manzanita Private Airstrip located approximately 12.3 miles southeast of the Project site.

g) **Less-than-Significant Impact with Mitigation.** The Project would include the removal of the existing bridge along Oak Road over Bear Creek and the construction of a new bridge designed to meet local, state, and federal standards. Oak Road will be closed during construction of the Project. Traffic will be detoured to surrounding streets including the private road just south of the existing Oak Road Bridge, existing private creek crossing at Post Mile 28.6 for SR 140, and SR 140. During construction, the Project could temporarily interfere with emergency access or response in the vicinity of the Project site. With implementation of **Mitigation Measure PUB-1**, discussed in the Public Services section of this document, impacts to emergency services would be less than significant.

h) **Less-than-Significant Impact.** The area surrounding the Project site contains private residential buildings that are susceptible to fire damage. The Project is a bridge replacement that would not expose additional people or structures to the threat of fire.

4.8.3 Mitigation Measures

Mitigation Measure HAZ-1: ACM and LBP Testing. Based on the age of the structure, the existing bridge may contain ACMs and shall be inspected by a California-licensed abatement contractor under separate assessment during the Plan, Specifications and Estimate (PS&E) process. Additionally, pavement striping, thermoplastic paint used on roadways, and paint on the bridge can often contain lead. The potential exists for the bridge and associated features to contain LBP, and they shall be addressed under separate assessment during the Plans, Specifications, and Estimate (PS&E) process.

The following actions are recommended for handling and disposal of lead containing materials during the preconstruction/pre-demolition phase:

- A California-licensed abatement contractor will conduct a survey for asbestos and lead containing materials prior to demolition (including concrete elements) and the contractor will submit a National Emission Standard for Hazardous Air Pollutants (NESHAP) notification. Per Section 14-9.02 of the Asbestos NESHAP regulation, all "demolition activity" requires written notification even if there is no asbestos present. This notification shall be typewritten and

postmarked or delivered no later than ten days prior to the beginning of the asbestos demolition or removal activity.

If asbestos and/or lead containing materials are found, the following will be required:

- Removal, disposal, storage and transportation of materials from the structure that contain asbestos shall be performed in compliance with Standard Special Provision (SSP) 14-11.16 and other federal and state regulations for hazardous waste.
- Building materials associated with paint on structures and paint on utilities shall be abated by a California-licensed abatement contractor and disposed of as a hazardous waste in compliance with SSP 14-11.13 and other federal and state regulations for hazardous waste.
- A Lead Compliance Plan shall be prepared by the contractor for the disposal of LBP. The grindings (which consist of the roadway material and the yellow and white color traffic stripes) shall be removed and disposed of in accordance with SSP 36-4 (Residue Containing High Lead Concentration Paints). In addition, the Lead Compliance Plan will also contain the following provision to address aerially-deposited lead: SSP 7-1.02K (6)(j)(iii) – Earth Material Containing Lead.
- A California-licensed lead contractor shall be required to perform all work that will disturb any LBP as a result of planned or unplanned renovations in the Project area, including the presence of yellow traffic striping and pavement markings that may contain leadLBP. All such material must be removed and disposed of as a hazardous material in compliance with SSP 14-11.12.

Mitigation Measure HAZ-2: Development of a Health and Safety Plan (HASP). The construction contractor will prepare and implement a HASP for the Project. Since no known contamination has been identified within the Project site, general construction health and safety procedures will be included. The HASP shall describe appropriate procedures to follow in the event that any contaminated soil or groundwater is encountered during construction activities. Any unknown substances shall be tested, handled, and disposed of in accordance with appropriate federal, state, and local regulations.

Mitigation Measure PUB-1: Please refer to the Public Services section of this document for information on this mitigation measure.

4.9 Hydrology and Water Quality

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that 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 that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

4.9.1 Setting

Bear Creek belongs to the Upper Merced watershed (Hydrologic Unit Code [HUC] 18040008) within the San Joaquin River Basin. The San Joaquin River Basin covers 15,880 square miles and includes the entire area drained by the San Joaquin River. It includes all watersheds tributary to the San Joaquin River and the Delta south of the Sacramento River and south of the American River watershed. The principal streams in the San Joaquin River Basin are the San Joaquin River and its larger tributaries: the Cosumnes, Mokelumne, Calaveras, Stanislaus, Tuolumne, Merced, Chowchilla, and Fresno rivers. Major reservoirs and lakes include Pardee, New Hogan, Millerton, McClure, Don Pedro, and New Melones.

The Upper Merced watershed covers approximately 1,269 square miles (812,440 acres or 3,288 square kilometers) and includes all waterbodies within Stanislaus, Mono, Madera, Mariposa, Merced, and Tuolumne counties. The principal streams within the Upper Merced watershed include Illilouette, Echo, Tenaya, Yosemite, Bridalveil, Cascade, and Dry Creeks, as well as the South Fork and North Fork of the Merced River, of which the South Fork, at 43 miles long, is the largest. Tributaries to the South Fork include Bishop, Rail, Alder, and Chilnualna creeks. Major reservoirs and lakes include Merced Lake, Tenaya Lake, the Chain Lakes, May Lake, Lake McClure, and Lake McSwain.

Bear Creek belongs to the Bear Creek watershed (HUC 180400080502), a sub-watershed to the Upper Merced watershed. The Bear Creek watershed drains an area of approximately 22.6 square miles (14,456 acres or 58.5 square kilometers). Bear Creek is the principal stream within the watershed and its tributaries include Plumbar, Rancheria, and Trabucco creeks. There are no lakes or reservoirs within the Bear Creek watershed.

Bear Creek is mapped as an intermittent channel on the Feliciana Mountain CA USGS 7.5-minute Quadrangle and is classified as a riverine, intermittent, streambed, seasonally flooded feature on the current National Wetlands Inventory (NWI) map (USFWS 2017). Bear Creek flows in a southeast to northwest direction through the Project study area, under Oak Road, and empties into the Merced River approximately four river miles northwest of the study area. Bear Creek is approximately 9.12 miles in length from its headwaters, which are approximately two miles north northwest of SR 140, to the Merced River.

Bear Creek is located within the Yosemite Valley groundwater basin. The majority of the County groundwater supplies originate from hard rock wells in the plutonic granites of the Sierra Nevada. The County groundwater flow is governed by the granitic terrain of the overall landscape. The overlying soil mantle thereby acts as a filtration and containment system, facilitating percolation and subsequent recharge in the fissure crack system, and serving as a temporary water reservoir. Specific granitic groundwater basins in the County, however, have not been studied in depth.

Observations recorded from well drilling and hydrogeologists provide valuable insights into the average characteristics of Sierra hard rock wells found in the County as follows (County of Mariposa, 2006):

- Wells have a mean depth of 115 feet, with an average pump depth between 50 to 100 feet.
- The average estimated yield is 3 to 5 gallons per minute (gpm) and most wells serve between two to three people. However, domestic well drilling is usually stopped when 5 to 10 gpm are obtained. It is possible that larger yields, greater than 50 gpm, could be obtained in some locations.
- Geologic observations indicate a rapid decrease in rock permeability and therefore water production with depth. As a result, domestic wells are preferably less than 150 to 250-feet deep;

however, the optimum depth of water wells in crystalline rocks is largely determined by economic factors.

- In the absence of geological and geophysical guidance, drilling in crystalline rocks can encounter highly variable amounts of water. In unweathered rock, 5 to 15 percent of wells are failures and roughly 10 percent will have yields of 50 gpm or more.

Metamorphic formations found in the County can also contain useable groundwater resources and show high hydrologic versatility. Highly fractured zones in the Sierra Foothills are known to carry large amounts of water. The permeability of these rocks is a result of its joints, faults, and bedding plane partings. Highest well yields tend to occur in or near broad ravines as a result of associated joint systems and fault zones.

Groundwater is used in the Yosemite Valley, Wawona, and El Portal areas for domestic water supplies and for park visitors within the National Park. Existing uses indicate that the groundwater resources of the County mountainous areas have the potential to provide high-quality drinking water for residential customers. There are some areas, however, within the County that contain some water quality challenges. Groundwater resources, for example in some parts of the Catheys Valley planning area, have been found to contain elevated levels of nitrates in the upper 50 to 100 feet of the water bearing unit, which has been attributed to historic turkey ranches (County of Mariposa, 2006).

4.9.2 Discussion

a, f) **Less-than-Significant Impact with Mitigation.** Bear Creek is the only body of water within the Project site. Bear Creek is a fifth-order intermittent stream located within the County. During periods of rainfall or runoff, Bear Creek conveys flows to its confluence with the Merced River. As is the case in all watersheds, land uses within the Bear Creek watershed heavily influence water quality in the creek. The Bear Creek watershed is largely undeveloped, and land use in the watershed is dominated by rural residential and some small agricultural operations. At the Project site, Oak Road also influences water quality in Bear Creek. Pollutants associated with agriculture in the watershed include pesticides, herbicides, nutrients from fertilizers, salts leached from soils, and animal waste. Vehicles traveling on Oak Road are sources of oil, grease, gasoline, heavy metals, and combustion byproducts. Water pollutants associated with rural residential land uses include fertilizers, herbicides, and pesticides used in landscaping; pollutants from vehicles; animal waste; and improperly disposed of household chemicals.

Development of the Project site has the potential to expose bare soil and potentially generate other water quality pollutants that could be exposed to precipitation and subsequent entrainment in surface runoff to Bear Creek. Prior to in-channel construction activities, the area of the channel where construction activities will occur will be dewatered through a stream diversion. Construction activities involving soil disturbance, excavation, cutting/filling, and grading activities could result in increased erosion and sedimentation to Bear Creek and waters downstream. Construction materials such as asphalt, concrete, and equipment fluids could be exposed to precipitation and subsequent runoff. If precautions are not taken to contain contaminants, construction could produce contaminated stormwater runoff (nonpoint source pollution), a major contributor to the degradation of water quality.

measures shall be implemented in order to minimize noise and vibration disturbances at sensitive receptors during periods of construction

- Use newer equipment with improved muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators, intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment shall be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).
- Utilize construction methods or equipment that will provide the lowest level of noise and ground vibration impact such as alternative low noise pile installation methods.
- Turn off idling equipment.
- Temporary noise barriers shall be used and relocated, as needed, to protect sensitive receptors against excessive noise from construction activities. Noise barriers can be made of heavy plywood or moveable insulated sound blankets.

The following administrative measures shall be implemented in order to minimize noise and vibration disturbances at sensitive receptors during periods of construction:

- Implement a construction noise and vibration-monitoring program to limit the impacts.
- Plan noisier operations during times (Monday through Friday, 7:00 AM to 5:00 PM) of least sensitivity to receptors.
- Keep noise levels relatively uniform and avoid impulsive noises.
- Maintain good public relations with the community to minimize objections to the unavoidable construction impacts. Provide frequent activity update of all construction activities.

4.13 Population and Housing

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.13.1 Setting

According to the 2010 Census and the 2010 American Community Survey, Mariposa County has a population of 18,251 individuals and a total of 10,188 housing units. The Project site is located within census tract number 1.01 and is adjacent to census tract number 3.02. Census tract 1.01 has a population of 3,929 people and a total of 2,047 housing units. Census tract 3.02 has a population of 2,706 people and a total of 1,504 housing units.

4.13.2 Discussion

a) **No Impact.** The Project would provide temporary employment for several people for construction and demolition activities. The Project would not result in the permanent creation of new jobs that would induce substantial population growth. Additionally, the road will remain a one-lane road and will not encourage population growth within the surrounding communities adjacent to the Project site.

b,c) **No Impact.** The Project would be constructed in place of an existing bridge and would not displace any housing or people. Consequently, replacement housing would not be required.

4.14 Public Services

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Public Services – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, or the 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:				
i) Fire protection?	☐	☒	☐	☐
ii) Police protection?	☐	☒	☐	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

4.14.1 Setting

The Project site and vicinity is served by the County Fire Department for fire, medical, and hazardous materials emergency services and is located within a state response area. The Project site and vicinity is served by the County Sheriff Department for law enforcement services. The Mariposa County Unified School District serves the Project site and vicinity. There are no parks located adjacent to the Project site.

4.14.2 Discussion

ai-aii) **Less-than-Significant Impact with Mitigation.** Fire service in the County is provided by the County Fire Department. The County Fire Department provides response to fire, medical, and hazardous material emergencies in the Project site. Company 27 in Mormon Bar of the Mariposa County Fire Department is located on 4621 Hwy 49 South, 6.6 miles south of the Project site. The County Sheriff Department provides law enforcement services to the County. The County Sheriff Department is located on 5099 Old Hwy North, approximately 5 miles south of the Project site.

Construction of the Project could result in accident or emergency incidents that would require emergency response, such as fire and police services; however, construction activities will be short-term and minimal. The Project is a bridge improvement Project that would not create additional demands on the local fire district or sheriff department during operations.

Emergency access to the Project site and surrounding land uses would be temporarily altered during construction activities through the use of a temporary detour. The temporary detour would be approximately 0.6 miles long and would utilize the private road just south of the existing Oak Road Bridge, existing private creek crossing at Post Mile 28.6 for SR 140, and SR 140. The short length of the temporary detour is not expected to significantly increase response times for emergency services, and implementation of **Mitigation Measure TRAF-1**

would ensure that fire and police protection impacts are minimized to a less-than-significant level.

Aiii) **Less-than-Significant Impact.** The Project is located approximately 5.1 miles north of the Mariposa Elementary School and 5 miles north of the Mariposa County High School. The Project is a bridge and roadway improvement project and would not generate any additional demand for schools. Construction of the Project would require closure of the Oak Road Bridge for approximately six months. During construction, a detour would be established which would utilize the private road just south of the existing Oak Road Bridge, existing private creek crossing at Post Mile 28.6 for SR 140, and SR 140 to bypass construction. Local school bus routes do not currently utilize the Oak Road Bridge and will not be impacted by the closure. After construction, vehicular, bicycle, and pedestrian access and safety of the Oak Road Bridge will be improved.

aiv) **No Impact.** The nearest park to the Project site is Mariposa Park at 4998 County Park Road, in the Town of Mariposa. This park is located approximately five miles south of the Project site, and would not be impacted by either construction or operation of the new bridge.

av) **No Impact.** The Project would not impact the County administrative services or any other public services.

4.14.3 Mitigation Measures

Mitigation Measure PUB-1: *Construction Period Emergency Access Plan.* Prior to the start of construction, the contractor shall coordinate with the County Sheriff and Fire Departments and local public and private ambulance and paramedic providers in the area to prepare a Construction Period Emergency Access Plan. The Construction Period Emergency Access Plan shall identify phases of the Project and construction scheduling and shall identify appropriate alternative emergency access routes.

4.15 Recreation

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Recreation – Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.15.1 Setting

There are no parks within the Project vicinity. The closest neighborhood or regional park to the Project site is Midpines Park (6364 Highway 140, Midpines), located approximately 2.5 miles south of the Project site in the Town of Mariposa. A portion of Yosemite National Park is within the Project vicinity, approximately 1,586 feet east of the Project site.

4.15.2 Discussion

a) **No Impact.** The Project is a bridge replacement project; it would not contribute to an increase in the local population, nor would it increase demand on existing neighborhood and regional parks. No additional parks would be created as a result of this Project.

b) **No Impact.** The proposed bridge and roadway improvements would not result in long-term physical impacts to parks. Midpines Park would not be impacted by either construction or operation of the new bridge.

4.16 Transportation and Traffic

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Transportation and Traffic – Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the City 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?	☐	☐	☐	☒

4.16.1 Setting

Oak Road is classified as a local road in the General Plan. The ADT on Oak Road at the Project site is approximately 130 vehicles per day. County roads within the County typically have a level of service (LOS) of "B" or "A."

The Project site is also under the jurisdiction of the Mariposa County Bicycle, Pedestrian, and Equestrian Facilities Plan; the Mariposa County Regional Transportation Plan; the Yosemite Area Regional Transportation System Transit Development Plan; and the Mariposa County Road Maintenance Program.

4.16.2 Discussion

a) **Less-than-Significant Impact with Mitigation.** The purpose of the Project is to provide adequate and safe vehicle access and provide a structure that will meet current design standards for the traffic utilizing this bridge.

Oak Road at the Project site will be closed during Project construction. A temporary detour would be established to route local traffic around the Project site. The temporary detour would be 0.6 miles long and would utilize the private road just south of the existing Oak Road Bridge, existing private creek crossing at Post Mile 28.6 for SR 140, and SR 140. The construction contractor for the Project shall implement a standard traffic management plan to minimize traffic disruption and ensure adequate access is maintained to surrounding residences. Traffic will be rerouted to the new structure upon Project completion.

The Project would not conflict with any plan or policy established for measuring the performance of the circulation system. Additionally, the low ADT of the existing bridge and short six-month window needed to construct the bridge replacement would result in a less-than-significant impact to the level of service along Oak Road with the implementation of **Mitigation Measure TRAF-1**.

c) **No Impact.** The Project does not include structures or uses that would affect air traffic patterns, nor is an airport located in the vicinity of the Project site. Therefore, the Project would not result in substantial safety risks related to air traffic.

d) **Less-than-Significant Impact.** One of the primary purposes of the Project is to improve safe access to the bridge for vehicles and pedestrians. Traffic hazards will not be increased as a result of the Project.

e) **Less-than-Significant Impact with Mitigation.** Traffic congestion and delays can occur during construction and can result in an adverse effect; however, these adverse effects can be avoided through standard construction period traffic management planning that includes timely notification of any road closures and detours to police and fire departments and other emergency service providers. Implementation of **Mitigation Measure PUB-1** would ensure that traffic disruption impacts are minimized to a less-than-significant level.

f) **No Impact.** The Project site is located in a rural residential area. The Project would not conflict with adopted policies, plans, or programs supporting alternative transportation.

4.16.3 Mitigation Measures

Mitigation Measure TRAF-1: *Standard Traffic Management Plan.* The construction contractor for the Project shall implement a standard traffic management plan to minimize traffic disruption and ensure adequate access is maintained to surrounding properties. Temporary disruptions to access for residences in the area shall be minimized by coordinating construction activities to provide alternative access points and/or by coordinating the construction schedule with property owners.

4.17 Tribal Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Tribal Cultural Resources – Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision C, of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.	☐	☒	☐	☐

4.17.1 Setting

A tribal cultural resource (TCR) is defined as a site, feature, place, cultural landscape, or sacred place or object that has cultural value to California Native American tribes. In order to be considered a TCR, the resource must be included in or determined eligible for inclusion in the CRHR or is in included in a local register of historical resources. To be considered a historical resource, for the purposes of a TCR, the resource must meet the following criteria for listing in the CRHR:

a) Is associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
b) Is associated with the lives of persons important to our past;
c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or
d) Has yielded, or may likely to yield, important information in prehistory or history.

AB 52 went into effect on July 1, 2015, and establishes a consultation process with all California Native American Tribes on the NAHC List for federal and non-federal tribes (13.5 PRC §§ 21073, 21074, 21080.3, 21084). Once the tribe is notified of the Project, the tribe has 30 days to request consultation. The consultation process ends when either the parties agree to mitigation measures or avoid a significant effect on tribal cultural resources or a party, acting in good faith and after reasonable effect, concludes that mutual agreement cannot be reached. The County has taken the lead on AB 52 notification and consultation for the Project. As part of the effort to identify any TCRs that may be within the Project site, a Sacred Lands File search was conducted by the NAHC in June 2017 and found no known TCRs in or near the Project site. Pursuant to PRC §21080.3, formal notification and invitation

to consult letters were sent on behalf of the County to the following tribes or individuals listed in **Table 7** below:

Table7. AB52 Contact List Provided by the Native American Heritage Commission

Name	Title	Affiliation
Ron Goode	Chairperson	North Fork Mono Tribe
Gary Walker	Chairperson	North Fork Rancheria of Mono
Claudia Gonzalez	Chairperson	Picayune Rancheria of Chukchansi
Lois Martin	Chairperson	Southern Sierra Miwuk Nation

4.17.2 Discussion

a) **Less-than-Significant Impact with Mitigation.** A search of the NAHC Sacred Land File and consultation with Native American tribes did not identify any TRC or historical resources, as defined in PRC Section 5020.1(k), in the Project site. The potential to uncover unknown or undocumented subsurface significant tribal cultural resource deposits, including human remains and sacred objects, would be potentially significant. Implementation of **Mitigation Measure TCR-1** would reduce this impact to a less than significant level.

4.17.3 Mitigation Measures

Mitigation Measure TCR-1: *Unanticipated Discovery of Tribal Cultural Resources.* If a TCR is encountered during Project-related ground-disturbing activities, the construction contractor will cease all work within 100-feet of the find until it can be determined if the resource is significant. The contractor will notify the County and Caltrans District 10, and the resource will be avoided, if possible. Preservation-in-place is the preferred manner of mitigating impacts; however, if avoidance is not feasible, a Treatment Plan that documents the research approach and methods for data recovery will be prepared and implemented in consultation with the County, Caltrans, and with the appropriate tribal organization.

4.18 Utilities and Service Systems

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Utilities and Service Systems – Would the project:				
a) Conflict with 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 that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

4.18.1 Setting

Wastewater collection and potable water within most of the County is mainly provided by on-site means or small, private communal systems. The Project is not within the boundaries of the Mariposa Public Utilities District or the Lake Don Pedro Community Services District. Solid waste within the County and within the Project vicinity is serviced by the County Department of Public Works. Electrical and telecommunications services are limited throughout most of the County.

4.18.2 Discussion

a) **No Impact.** The Project would not generate any wastewater.

b) **No Impact.** The Project would not require the construction of additional wastewater or water treatment facilities.

a) **No Impact.** The Project would not require construction of new storm water drainage facilities or expansion of existing facilities.

c) **Less-than-Significant Impact.** The Project would consist of demolition of an existing bridge and construction of a new bridge and would not require water supply. The Project would require some non-potable water during construction for dust control.

d) **No Impact.** The Project would not require wastewater treatment services.

e) **Less-than-Significant Impact.** The Project would generate waste from temporary construction activities and demolition of the Oak Road Bridge. Solid waste associated with construction activities will be handled by the Mariposa Landfill, Composting and Recycling Center (5593 Hwy 49 North, Mariposa), located approximately 9.5 miles from the Project site. The Mariposa Landfill, Composting and Recycling Center has the capacity to accept waste generated by the Project. The Project would not result in long-term demands for solid waste disposal services.

f) **No Impact.** The Project would comply with all federal, state, and local statues and regulations related to solid waste.

4.19 Mandatory Findings of Significance

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Mandatory Findings of Significance – Would the project:				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) 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) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

4.19.1 Setting

Per CEQA regulations and guidelines, the Lead Agency must summarize the findings of significance from earlier sections and must consider potential cumulatively considerable effects for environmental impact reports (EIRs) and in the discussion section below. Even though this environmental document is an IS/MND and not an EIR, the potential for cumulatively considerable effects are analyzed below.

4.19.2 Discussion

a) **Less-than-Significant Impact with Mitigation**. Per the impact discussions in the Biological Resources section, the potential of the Project to substantially degrade the environment would be less than significant with incorporated mitigation measures.

b) **Less-than-Significant Impact.** The Project site is located within Mariposa County. The purpose of the Project is to provide safe vehicle access and meet current design standards for the Oak Road Bridge. The impacts of the Project are mitigated to a less-than-significant level, limited to the construction phase of the Project, and generally site specific. No other projects are proposed that would overlap or interact with the Project.

c) **Less-than-Significant Impact.** The Project would not cause substantial adverse effects on human beings. Effects related to air quality, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, public services, and transportation and traffic are discussed above and would not result in any significant and unavoidable impacts.

5 LIST OF PREPARERS AND REVIEWERS

This Draft IS/MND was prepared by Drake Haglan and Associates (DHA) in cooperation with the other members of the environmental study team. DHA was responsible for project management and Draft IS/MND preparation. The Draft IS/MND technical team and other environmental study team members provided technical expertise, as presented below.

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Project Manager ..... Leslie Haglan
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