

**Wolf Creek Road at Wolf Creek Bridge Replacement Project (Bridge No. 14C-0049)  
Project Mitigation Monitoring and Reporting Program**

Impact	Mitigation, Avoidance, and Minimization Measures	Implementation Timing	Implementation Responsibility	Verification Responsibility	Compliance Verification Date
<b>Air Quality</b>					
	<p><b>AQ-1.</b> Prior to obtaining the necessary permits and/or approvals, the applicant shall contact the Lake County Air Quality Management District and obtain an Authority to Construct.</p>	<p>Prior to and during construction</p>			
	<p><b>AQ-2.</b> All vegetation during site development shall be chipped and spread for ground cover and/or erosion control. The burning of vegetation, construction debris, including waste material is prohibited.</p>	<p>During and following construction</p>			
<b>Biological Resources</b>					
	<p><b>BIO-1.</b> Limbing or removal of mature blue oaks should be avoided to the extent feasible. Parking and staging areas should not be located within the driplines of mature oak trees due to the possibility of root compaction. If removal of mature oaks cannot be avoided, a mitigation agreement should be developed with CDFW for replacement of oaks at a ratio of not less than 3-to-1.</p>	<p>During construction</p> <p>Prior to and during construction</p>			
	<p><b>BIO-2.</b> Work within the channel should avoid disturbing downed trees, stumps and other basking sites and refuges within these aquatic habits.</p>	<p>During construction</p>			
	<p><b>BIO-3.</b> Should any work occur within the banks or riparian habitat of the creek at times when the affected segment contains water, it should be immediately preceded by a site inspection of the channel by a qualified biologist with a valid CDFW collecting permit. Any turtles within the work area should be captured and transferred to another suitable portion of Upper Wolf Creek.</p>	<p>During construction</p>			

	<p><b>BIO-4.</b> The flowing portion of the stream shall be diverted through culverts with cofferdams constructed of clean material such as sandbags, water bladders, etc., at the upstream and downstream ends of the proposed construction area. The Resident Engineer shall check with Yolo County Flood Control to determine the volume of maximum construction season stream flows.</p>	<p>During construction</p>			
	<p><b>BIO-5.</b> The culverts shall be no less than two feet in diameter and inset into the channel to a depth of half their diameter in order to allow downstream passage of fish and herptiles. These structures shall be removed at the end of the project and prior to winter stream flows.</p>	<p>During and following construction</p>			
	<p><b>BIO-6.</b> The proposed diversion shall be reviewed and approved by a qualified biologist with a valid CDFW collecting permit prior to installation. That individual shall be present during its construction. During construction of this diversion, the qualified biologist shall inspect the diverted channel segment for sensitive herptiles and nests as described above and shall capture and release any herptiles or fish within the diversion area to a suitable segment of Upper Wolf Creek.</p>	<p>Prior to and during construction</p>			
	<p><b>BIO-7.</b> Prior to construction outside of the period when water is present in the channel, the qualified biologist shall inspect adjacent banks within the proposed stream crossing (PIA) for turtle nests and flag any nests for installation of construction fencing around a 5-foot radius. Any nests that cannot be avoided shall be moved and monitored by the qualified biologist. If nests are found a monitoring report containing photographs of the nest relocation effort and weekly inspections for a period of one (1) month shall be submitted to CDFW staff for review upon completion of the monitoring period.</p>	<p>Prior to and during construction</p>			
	<p><b>BIO-8.</b> The Resident Engineer shall be responsible for assuring that the terms and conditions of the CDFW stream alteration agreement for this project are consistent with this mitigation measure.</p>	<p>Prior to and during construction</p>			

	<p><b>BIO-9.</b> Work within a minimum of 250 feet of a bald eagle or white-tailed kite nest should be avoided between February 15 and August 31 in order to avoid the potential for disrupting nesting and breeding, unless the work is preceded by the survey described below and the species are determined to not be present.</p>	<p>Prior to and during construction</p>			
	<p><b>BIO-10.</b> To the extent feasible, construction-related activities within the bridge crossing area, including vegetation removal, shall occur outside of the nesting season (February 15 through August 31). If construction during the nesting season cannot be avoided, any required vegetation removal should be the minimal amount necessary for construction and should be completed prior to the nesting season. In the event that vegetation removal is necessary during the nesting season, the work shall be preceded by a pre-construction nest survey conducted by a qualified biologist within two weeks of disturbance. If an active nest of a sensitive bird species is found, a construction buffer shall be established around it in consultation with CDFW staff and shall remain in place until fledging is completed or until it is determined that the nesting effort has failed as determined by the qualified biologist.</p>	<p>Prior to and during construction</p>			
	<p><b>BIO-11.</b> Work within 100 feet of the red willow thicket habitat along Upper Wolf Creek should be avoided from February 15 through August 31 in order to avoid the potential for disrupting nesting and breeding for these species, unless the work is preceded by the survey described below.</p>	<p>During construction</p>			

<p><b>BIO-12.</b> Any work requiring construction or vegetation clearing within 100 feet of the red willow thicket community between February 15 and August 31 of any year should be preceded by pre-construction surveys pursuant to CDFW policy. In the event that this species is determined to be nesting within 100 feet of the proposed construction activities, construction should be delayed within 100 feet of the nest until after August 31, or until fledging is completed as determined by a qualified biologist. The construction buffer may be reduced depending on presence of screening vegetation or topography based on the recommendation of a qualified biologist.</p>	<p>Prior to and during construction</p>			
<p><b>BIO-13.</b> Disturbance in and adjacent to the creek should be avoided between December 1 and April 30 to avoid the potential for disrupting nesting and breeding, unless survey and avoidance are implemented. If work requiring construction or vegetation clearing at the bridge site between these dates is performed, it should be preceded by pre-construction surveys by a qualified biologist for active otter den sites within the proposed active disturbance area. In the event that an active den site is present within the area of active disturbance, construction should be delayed within 50 feet of the nest until young are independent as determined by a qualified biologist.</p>	<p>Prior to and during construction</p>			
<p><b>BIO-14.</b> Removal of the bridge or any trees containing hollows or peeling bark within the BSA should be completed between September 15 and October 15, or between February 15 and April 1, in order to avoid disrupting the breeding season or disturbance of hibernating bats unless the surveys and avoidance measures described below are implemented</p>	<p>During construction</p>			

	<p><b>BIO-15.</b> If work is proposed within woodland habitat (outside of the dates listed above), all trees within a 150-foot radius of the proposed work area, that are suitable for use by bats shall be surveyed for signs of bats no earlier than fourteen days prior to tree removal or other habitat disturbance. Suitable trees include those with hollows and/or shedding bark. If pallid bats, or other bats with sensitive regulatory status, are discovered during the surveys, a buffer of 100 to 150 feet should be established depending on recommendations of the surveying biologist. Removal of these roost trees shall be restricted to between September 15 and October 15, when young of the year are capable of flying, or between February 15 and April 1 to avoid hibernating bats and prior to formation of maternity sites.</p>	<p>Prior to and during construction</p>			
	<p><b>BIO-16.</b> Alternatively, exclusion netting may be installed at a time when bats are not present. The netting should exclude any openings greater than 3/8" or greater in size.</p>	<p>Prior to construction</p>			
	<p><b>BIO-17.</b> The following measures shall be included in the construction contract special provisions to prevent the spread of invasive species:</p> <ul style="list-style-type: none"> <li>-All equipment and vehicles will be thoroughly cleaned to remove dirt and weed seeds prior to being transported or driven to or from the Project site.</li> <li>- Any borrow site or stockpile will be inspected for the presence of noxious weeds or invasive plants.</li> <li>- If noxious weeds or invasive plants are present, the contractor will remove approximately five inches of the surface of the material from the site before transporting to the Project.</li> <li>- Before removal, this material will be chemically or mechanically treated to kill the existing noxious weeds and invasive plants and will not be used for the Project without approval.</li> </ul>	<p>Prior to and during construction</p>			
<p><b>Cultural Resources</b></p>					

	<b>CUL-1.</b> If cultural materials are discovered, all earthmoving activity within and around the immediate discovery area shall be halted until an archaeologist who meets federal qualifications can assess the nature and significance of the find.	During construction			
	<b>CUL-2.</b> If human remains are discovered, contact the County Coroner. If the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the Most Likely Descendant (MLD). At that time, the District 1 Environmental Branch Chief or the District 1 Native American Coordinator will be contacted so that he/she may work with the MLD on the respectful treatment and disposition of the remains.	During construction			
<b>Hazards &amp; Hazardous Materials</b>					
	<b>HAZ-1.</b> Removal, disposal, storage and transportation of the structure containing lead-based paint shall be performed in compliance with 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. A Lead Compliance Plan shall be prepared by the contractor for the disposal of lead-based paint. A California state licensed lead contractor shall be required to perform all work that will disturb any lead-based paint as a result of planned or unplanned renovations in the project area.	Prior to and during construction			
	<b>HAZ-2.</b> Removal of treated timber associated with the existing bridge will be removed and disposed at a Regional Water Quality Control Board certified treated wood waste (TWW) landfill.	During construction			

	<b>HAZ-3.</b> The contractor should prepare a Develop a Health and Safety Plan (HASP) that describes appropriate procedures to follow in the event that any contaminated soil or groundwater is encountered during construction activities. Any unknown substances should be tested, handled and disposed of in accordance with appropriate federal, state and local regulations.	Prior to construction			
<b>Hydrology/Water Quality</b>					
	<b>WQ-1.</b> All temporarily disturbed areas will be returned to pre-Project conditions upon completion of construction. These areas will be properly protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and revegetation. In sloped areas, additional erosion control measures would be applied including erosion control blankets and fiber rolls. If woody species (i.e., trees and large shrubs) are removed, these areas would be replanted with comparable native vegetation.	Following construction			
	<b>WQ-2.</b> Develop and Implement Dewatering Plan.	Prior to construction			
	<b>WQ-3.</b> Develop Stormwater Pollution Prevention Plan (SWPPP) and Implement Water Quality Best Management Practices. The SWPPP must include a waste management section that provides procedural and structural BMPs for collecting, handling, storing, and disposing of wastes generated by the construction project to prevent the accidental release of pollutants during construction. The SWPPP also includes measures to report, contain, and mitigate for any accidental spills during construction. Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, state, and/or federal regulations.	Prior to construction			

	<p><b>WQ-4.</b> The Contractor will install silt fencing, fiber rolls, or other equivalent erosion and sediment control measures between the designated work area and Upper Wolf Creek, as necessary, to ensure that construction debris and sediment does not inadvertently enter the waterway. Storage and stockpiling of earth materials near Upper Wolf Creek will be avoided if possible.</p> <p>To ensure that wildlife is not trapped, tightly woven fiber netting (no monofilament netting) or similar material shall be used for erosion control or other purposes within the Project work limits. Coconut coir matting and burlap-contained fiber rolls are an example of acceptable erosion control materials.</p>	<p>During and following construction</p>			
	<p><b>WQ-5.</b> Immediately after bridge construction is complete, all exposed soil shall be stabilized. Soil stabilization may include, but is not limited to, seeding with a native grass seed mix, planting native plants and placement of rock. Hydraulic mulch should be used in conjunction with a native seed mix applied to the disturbed soil. Disturbed soil areas and areas where existing pavement is removed would be reseeded using a California native plant seed blend. An erosion control seed mix (hydroseed) would be applied in disturbed soil area and on slopes flatter than 1:1. Erosion control (e.g., Bonded Fiber Matrix with a native plant seed blend) would be applied on all disturbed or cut slopes steeper than 1:1.</p>	<p>Following construction</p>			



	<p><b>WQ-6.</b> Sediment cleanup will be implemented anywhere sediment is tracked from the project area and staging area onto public or private paved roads, typically at points of ingress/egress. For the Project, street sweeping may be used along Wolf Creek Road and Spring Valley Road.</p> <p>If dewatering is required during pile construction, activities will need to account for changes in pH associated with concrete contact water. High pH water (pH &gt; 8.5) must be managed to prevent any discharges to receiving waters. Discharges of high pH water to land (upland disposal) must be approved by the RWQCB prior to disposal.</p>	During construction			
	<p><b>WQ-7.</b> To avoid waste products from pile driving operations, pile shells for construction of cast-in-steel-shell or cast-in-drilled-hole piles will be used in accordance to Caltrans Standard Specifications.</p>	During construction			
	<p><b>WQ-8.</b> Use, storage, and disposal of materials and equipment on barges, boats, temporary construction pads, over or adjacent to a watercourse will be performed according to Caltrans Standard Specifications.</p>	During construction			
	<p><b>WQ-9.</b> During bridge demolition and removal, best management practices will be used to protect Upper Wolf Creek from debris and waste associated with the demolition. These measures include using attachments on construction equipment, platforms, or other means to catch debris.</p>	During construction			
<b>Noise</b>					
	<p><b>NOS-1.</b> Construction operations are limited to daylight hours only (Monday to Friday, 7:00 AM to 7:00 PM).</p>	During construction			
	<p><b>NOS-2.</b> Use equipment with regulatory approved or meter muffling devices 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. All construction equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).</p>	During construction			

**Commented [L1]:** Make sure to get John's o.k. on this mitigation measure which initially included Chalk Mountain Road.

	<b>NOS-3.</b> Utilize construction methods or equipment that shall provide the lowest level of noise and ground vibration impact such as drilled pile installation (i.e. use of CIDH piles) rather than pile driving.	During construction			
	<b>NOS-4.</b> Turn off idling equipment.	During construction			
	<b>NOS-5.</b> Provide information to the Community Center regarding the proposed Project and construction schedule.	During construction			
	<b>NOS-6.</b> The County and the horse property owner will discuss the need for off-site boarding of horses.	During construction			
<b>Transportation</b>					
	<b>TRAN-1.</b> Detailed detour signage plans will be reviewed and approved by the County's traffic engineer and provided in the engineering plan set. County staff will provide Public Outreach brochures and meetings prior to construction to keep residents informed of the project. Emergency vehicle access would be maintained at all times.	Prior to construction			