

CALIFORNIA ENVIRONMENTAL QUALITY ACT
MITIGATION MONITORING AND REPORTING PROGRAM IN SUPPORT OF A
INITIAL STUDY / MITIGATED NEGATIVE DECLARATION
FOR THE
TEN MILE CREEK PEDESTRIAN BRIDGE AT BRANSCOMB ROAD
LAYTONVILLE, CA

LEAD AGENCY
COUNTY OF MENDOCINO
STATE OF CALIFORNIA

For reference by the Mendocino County Board of Supervisors.

The Mitigation Monitoring and Reporting Program is also included as Section 6 in the Initial Study/ Mitigated Negative Declaration

Mitigation Monitoring and Reporting Program

This Mitigation and Monitoring Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the Ten Mile Creek Pedestrian Bridge Project (proposed project). The MMRP lists mitigation measures recommended in the IS/MND for the proposed project and identifies mitigation monitoring requirements. This MMRP has been prepared to comply with the requirements of State law (Public Resources Code Section 21081.6). State law requires the adoption of an MMRP when mitigation measures are required to avoid significant impacts. The MMRP is intended to ensure compliance during implementation of the project. Responsibility for ensuring successful implementation of the MMRP lies with the Mendocino County Department of Transportation (MCDOT), representing the Lead Agency for the project under CEQA.

Environmental monitoring will be required throughout all phases of the proposed project. Prior to and during construction, mitigation monitoring shall minimize potential impacts to environmental resources. Monitoring is also necessary to ensure and verify implementation of the mitigation measures prescribed in the IS/MND. Compliance with mitigation measures can be documented in the project file through written reports, accompanied by project photos where necessary.

The MMRP is organized in a matrix. The first column identifies the mitigation measure with a short summary of the specific action needed to fulfill the mitigation measure, followed by what party is responsible for implementation, the timeframe for implementation, what party is responsible for monitoring compliance, and what party is responsible for verification.

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
I. AESTHETICS Mitigation Measures listed under <u>Section IV-Biological Resources</u> and <u>Section IX-Hydrology and Water Quality</u> will assure that impacts to aesthetic caused by vegetation removal are reduced to a less than significant level. No additional project specific mitigations are required under this subject.					
II. AGRICULTURE AND FOREST RESOURCES No project specific mitigations are required under this subject. However, Mitigation Measures listed for <u>Section IV-Biological Resources</u> will assure that impacts are reduced to a less-than-significant level.					
III. AIR QUALITY Efforts to minimize the amount of disturbance and areas cleared of vegetation, and to revegetate disturbed areas as soon as possible after disturbance, are included in Mitigation Measures listed in <u>Section IV-Biological Resources</u> and <u>Section VII-Greenhouse Gas Emissions</u> . They will help assure that potential impacts to Air Quality are reduced to a less than significant level. Due to the limited construction activities associated with the proposed action, construction emissions would be well below regulatory levels. However, the following Mitigation Measures will be implemented to ensure impacts related to Air Quality remain below significance thresholds during construction.					
<i>Mitigation Measure III-1</i>	<i>Contractor shall provide and use adequate water and/or other dust palliatives shall be used on all disturbed areas in order to avoid particle blow-off.</i>	Contractor	During construction	County	
<i>Mitigation Measure III-2</i>	<i>Track-out reduction measures such as gravel pads should be used at access points to minimize dust and mud deposits on roads affected by construction traffic.</i>	Contractor	During construction	County	
<i>Mitigation Measure III-3</i>	<i>Contractor shall sweep paved streets as necessary to control trackout or fugitive dust.</i>	Contractor	During construction	County	
<i>Mitigation Measure III-4</i>	<i>Contractor shall cover or tarp all vehicles hauling dirt or spoils on public roads if sufficient freeboard is not available to prevent material blow-off during transport.</i>	Contractor	During construction	County	
<i>Mitigation Measure III-5</i>	<i>Contractor shall limit work if wind conditions make preventing fugitive dust emissions impracticable.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA

MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure III-6</i>	<i>Water shall be applied to exposed soil surfaces at the construction site(s) and equipment as frequently as necessary to control fugitive dust emissions. Keep soil moist while loading into dump trucks to minimize fugitive dust.</i>	Contractor	During construction	County	
<i>Mitigation Measure III-7</i>	<i>Cover construction materials and stockpiled soils if they are a source of fugitive dust.</i>	Contractor	During construction	County	
<p>IV. BIOLOGICAL RESOURCES</p> <p>The following Mitigation Measures will be implemented to assure that potential impacts to Biological Resources are reduced to a less than significant level. In addition, other Mitigation Measures that will help protect Biological Resources are listed under other Sections as noted below.</p> <p>Large boulder(s) or woody debris may be placed in the stream channel to provide instream structure to encourage scouring. This process is currently in negotiation with California Department of Fish and Wildlife, National Marine Fisheries Service and Caltrans Local Assistance. Refer to Mitigation Measure IV-16 under Mitigation Planting for additional information.</p> <p>Construction noise has the potential to impact both human and wildlife species if not minimized. The size of equipment used and the proximity to receptors have a direct effect on the noise pressure level. Pile driving will result in excessive noise; however, it will be of a short duration. Pile driving will be accomplished with vibratory pile driving methods, avoiding the use of impact hammer driving, as described earlier in the ISMND. Actual pile driving activity is anticipated to be completed in one to two days. Refer to Mitigation Measures presented in <u>XII–Noise</u> to be implemented on this project.</p> <p>Potential impacts to biological resources, caused by impacts on water quality resulting from construction, including those related to sedimentation and erosion and from other contaminants reaching the water course, are addressed in Mitigation Measures presented in <u>IX – Hydrology and Water Quality</u>.</p>					
<i>Mitigation Measure IV-1</i>	<i>The County will coordinate preconstruction surveys to ensure that no listed or special status species are present within the project vicinity.</i>	County	Prior to construction	County	
<i>Mitigation Measure IV-2</i>	<i>Construction is temporary and it will only be allowed to occur only during daylight hours limited to 7:00 am to 7:00 pm weekdays which will minimize impacts to public and to wildlife.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IV-3</i>	<i>The Project design incorporates a prefabricated truss style bridge that will clear span the channel bottom. The bridge type to be specified is such that the sections will be joined and lifted from the bridge deck level onto the prepared foundations, eliminating the need to enter the creek bottom with mechanized equipment or to erect scaffolding or falsework on the channel bottom.</i>	Engineer	During design	County	
<i>Mitigation Measure IV-4</i>	<i>Best practices require that the proposed work be performed between June 15 and October 15. Construction work for this Project is proposed in a period of low stream flow in late summer of 2015, from August 1 through September 15, and in no case later than October 15, unless a consultation with CDFW/NOAA NMFS is conducted.</i>	Contractor	During construction	County	
<i>Mitigation Measure IV-5</i>	<i>Construction documents will include requirements and provide details to implement mitigations as outlined in this Section.</i>	Engineer	During design	County	
<p>The following Mitigation Measures will be implemented to assure that potential impacts to Valley Oaks are reduced to a less than significant level.</p> <p>Potential impacts to three existing Valley oaks could result from equipment working in proximity to trees, and from placing fill within the driplines of the trees as described in the Habitat Assessment and Botanical Survey. No significant trenching is required to be performed crossing the root zones of the trees. The following measures will be implemented to increase awareness about working in root zones and to avoid smothering the roots of the affected oaks with additional fill by constructing a 6-in (minimum thick) root protection blanket, designed to allow air and moisture to reach the underlying roots. The following Mitigation Measures are more fully described in the Riparian Restoration and Wetland Mitigation Monitoring Plan.</p>					
<i>Mitigation Measure IV-6</i>	<p><i>Contractor shall plan construction activities such that the tree trunks and limbs are avoided while maneuvering equipment.</i></p> <p><i>The use of equipment within the driplines of the oaks should be avoided to the extent possible. If it is necessary to maneuver equipment within an area less than half the distance from the dripline to the bole of the tree, the area should be bridged with railroad ties and steel plates.</i></p>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IV-7</i>	<i>If serious bark wounds occur to the subject trees, an arborist should be contacted to examine and reshape the wound for proper healing.</i>	County	Event-driven	County	
<i>Mitigation Measure IV-8</i>	<p><i>To avoid impact to roots of one 48" dbh, one 36" dbh and one 24" dbh Valley Oak near the ends of the east and west bridge approaches, fills will be constructed that will incorporate "root blanket protection" to allow air and water to reach the root area.</i></p> <p><i>Work will begin with careful clearing of surface debris down to or slightly below the surrounding grade. Exposed roots will be maintained in a moist and protected condition until fill is placed, such as by covering with damp burlap bags.</i></p> <p><i>A "geogrid" style textile will be placed over the prepared area. Over that, a layer not less than 6 inches deep, of properly sized clean aggregate will be placed. The geogrid will be wrapped up the sides and onto the top of the gravel blanket to contain the gravel, and a geotextile filter-style fabric will be placed over the root blanket to prevent sediment from filling in the air voids.</i></p> <p><i>Above the sandwiched rock blanket, the fills will be brought to the proper grade with a combination of base rock and a finished surface of concrete and/or asphalt paving.</i></p> <p><i>To reduce the footprint of the fill at the east end, a small retaining curb will be constructed on the north and east side of the approach. Due to its proximity to the 36-inch valley oak it will be necessary to bridge the curb along the area at its closest to the tree to avoid excavation for a deepened footing. If practicable, the raised walkway approach will be extended as far as possible to minimize the area of fill required for the east approach ramp.</i></p>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IV-9</i>	<i>In addition, invasive species will be removed from areas disturbed by construction as a measure of enhanced mitigation and so as not to inadvertently cause additional spreading. As enhanced mitigation for disturbances caused by project activities, invasive species shall be removed carefully by hand from all areas disturbed for construction and for planting of trees. Care shall be taken to avoid leaving roots that can repropagate. Removed vegetative materials capable of repropagating shall not be used as mulch, and shall be disposed of properly off the project site. These areas will be restored as outlined in the RRWMMP referred to above.</i>	Contractor	During construction	County	
<p>The following Mitigation Measures will be implemented to assure that potential impacts from loss of vegetation are reduced to a less than significant level through mitigation planting. These measures address impacts to riparian vegetation that affect sensitive species and the riparian community described in the Habitat Assessment and Botanical Survey. Preparation and planting methods related to implementing these mitigation measures are more fully described in the Riparian Restoration and Wetland Mitigation Monitoring Plan. The minimum required replacement planting rate is 3:1 for each species. A higher replacement planting ratio of 6:1 is proposed to help ensure that successful mitigation will be achieved in the up to five-year monitoring period. If at the end of three years, revegetation has established above 50 percent of the 3:1 ratio, the effort would be considered a success and no further monitoring would be necessary.</p>					
<i>Mitigation Measure IV-10</i>	<i>To compensate for the removal of one 36" dbh white alder, six alders will be planted (6:1 replanting ratio) on the east side of Ten Mile Creek (Planting Area C) and invasive species will be removed from the area as described in Mitigation Measures IV-18 and IV-19. The area is below the OHWM to provide close proximity to water, and is subjected to sunlight, both of which are needed for the alders to succeed. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above.</i>	Contractor	During construction and post construction	County	
<i>Mitigation Measure IV-11</i>	<i>To compensate for the removal of one 10" dbh California buckeye tree, six buckeye trees will be planted on the west side of Ten Mile Creek (Planting Area A) and invasive species will be removed from the area as mentioned in IV-10 above. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above.</i>	Contractor	During construction and post construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IV-12</i>	<i>To compensate for the removal of two 4" dbh Oregon ash tree, twelve ash trees will be planted on the west side of Ten Mile Creek (Planting Area A) and invasive species will be removed from the area as mentioned in IV-10 above. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above.</i>	Contractor	During construction and post construction	County	
<i>Mitigation Measure IV-13</i>	<i>To compensate for the removal one 4" dbh California Bay trees, six bay trees will be planted on the west side of Ten Mile Creek (Planting Area A) and invasive species will be removed from the area as mentioned in IV-10 above. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above.</i>	Contractor	During construction and post construction	County	
<i>Mitigation Measure IV-14</i>	<i>To compensate for the removal of three 4" dbh Arroyo willow tree, eighteen willow trees will be planted on the west side of Ten Mile Creek (Planting Areas B) between the two bridges, and invasive species will be removed as mentioned in IV-10 above. Success shall be the result of achieving no less than a 50% survival rate of the species as more thoroughly described above. These tree plantings will also serve to reduce sedimentation and erosion due to their placement.</i>	Contractor	During construction and post construction	County	
<i>Mitigation Measure IV-15</i>	<i>County shall secure a source for providing water to irrigate plantings during the plant establishment period. If a local source cannot be procured MCDOT will secure a location for and furnish a storage tank to facilitate routine irrigation, and shall replenish water supply as necessary.</i>	County	Prior to completion of first plantings	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
Mitigation Measure IV-16	<p><i>The eventual decay of the root mass and the likely loss of the deepened pool or areas of flowing water benefiting fish and wildlife species will require mitigation. Large boulders or woody debris may be placed to encourage the development of pools near the center of the channel bottom, downstream of the bridge within the studied area of potential effects. Negotiations are currently in process with regulating agencies regarding this mitigation. In order to minimize potential impacts of this work, the following measures will be taken:</i></p> <p><i>As a proactive measure, to avoid project delays it is recommended that flow conditions be monitored the month preceding construction so that a course of action can be undertaken in a timely manner.</i></p> <p><i>If there is standing or flowing water at the only advantageous location for the boulder placement at the time of construction, CDFW/NOAA NMFS will be notified and a snorkel survey will be conducted to determine if species of concern are present. If required an Incidental Take Permit (ITP) will be acquired and those present will be relocated or the flow temporarily diverted.</i></p> <p><i>If possible boulders or woody debris will be lowered from the bridge level above by crane or boom truck into the prepared holes.</i></p> <p><i>Laborers will repack the holes around the boulders or woody debris with the excavated material.</i></p>	Contractor	During construction	County	
The following Mitigation Measure will be implemented to assure that potential impacts to wetlands are avoided.					

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA

MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IV-17</i>	<i>The Contractor shall install and maintain high visibility protective exclusionary fencing around two existing wetland areas within the Biological/Botanical Study Area, identified in the preliminary wetland delineation report. Both areas are outside of the construction areas. Fencing will help to avoid accidental disturbance of or damage to wetland vegetation damage by preventing entry into the protected areas.</i>	Contractor	During construction	County	
The following Mitigation Measures will be implemented by the removal of invasive species, as enhanced mitigation to improve riparian habitat.					
<i>Mitigation Measure IV-18</i>	<i>Invasive vegetative species shall be removed from areas disturbed by the construction and planting activities. They shall be removed according to guidance provided in the RRWMMP report. In general, vegetation shall be removed carefully by hand from all areas disturbed for construction and replanting. Care shall be taken to avoid leaving roots that can repropagate. Stripped vegetative matter of native and non-invasive species may be placed as mulch over disturbed areas where called for in construction documents.</i>	Contractor	During construction and post construction	County	
<i>Mitigation Measure IV-19</i>	<i>Vegetative matter that is capable of repropagating invasive species shall not be used as mulch and shall be removed from the site by the Contractor.</i>	Contractor	During construction	County	
The following Mitigation Measures will be implemented to protect existing riparian vegetation.					
<i>Mitigation Measure IV-20</i>	<i>The Engineer shall include specifications in the construction documents that require the Contractor to comply with CASQA Erosion Control BMP EC-2 and Stream Bank Stabilization EC-12, which includes at a minimum the following protective measures.</i>	Engineer	During design	County	
<i>Mitigation Measure IV-21</i>	<i>The Contractor shall preserve existing vegetation where not otherwise specified for removal. Contractor shall plan work such that no new access will be developed, other than over the minimum footprints required to be disturbed for the work.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IV-22</i>	<i>The Contractor shall not allow mechanized track or wheel driven equipment to be used in the streambed to avoid impacts to the channel bottom.</i>	Contractor	During construction	County	
<i>Mitigation Measure IV-23</i>	<i>The Contractor shall, to the extent feasible, limit the use of track or wheel driven equipment at the pile cap construction locations, to minimize wear and tear on existing vegetation.</i>	Contractor	During construction	County	
The following Mitigation Measures will be implemented to restore riparian vegetation and protect disturbed areas from erosion until vegetation is reestablished.					
<i>Mitigation Measure IV-24</i>	<i>Areas disturbed by the construction and plantings shall be treated as described in the RRWMMP in "Table 5. Recommended Plant Installation Specifications for Temporary Disturbance Areas."</i>	Contractor	During construction	County	
<i>Mitigation Measure IV-25</i>	<i>Revegetation and protection shall be performed as soon as feasible to provide the most effective protection and prior to the onset of the rainy season.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IV-26</i>	<i>Monitoring of revegetation efforts will be initiated immediately following completion of the planting, and extend for a period of up to five years. Monitoring surveys will consist of a general site walkover evaluating the survival and health of riparian plantings, signs of drought stress, weed or herbivory problems, and the presence or trash or other debris. Corrective measures including replacement of revegetation plantings, application of supplemental irrigation, hand removal of non-native weeds, replacement or removal of protective plant covers, and the removal of trash and debris will be implemented as necessary. Within the mitigation area, less than 50% total mortality of species when replaced at a minimum 3:1 ratio (including container stock and hardwood cuttings) will be considered a success. Greater than 50% mortality of species will be considered acceptable if "volunteer" native species provide complete vegetation coverage in the mitigation area. If monitoring results indicate that revegetation efforts are not meeting established success criteria, corrective measures would be implemented.</i>	Contractor	During construction and post construction	County/ Contractor	
<i>Mitigation Measure IV-27</i>	<i>Monitoring of efforts to remove invasive species shall be commenced after removal of invasive species from the specified project areas. Reemerging plants shall be removed each spring before setting seed, using the methods outlined in the RRWMMP document. The absence of reestablished invasive species in the designated areas at the end of the revegetation monitoring period shall be considered a success.</i>	Contractor	Post construction	County/ Contractor	
V. CULTURAL RESOURCES: The following Mitigation Measures to minimize potential impacts to Cultural Resources will be implemented prior to construction.					
<i>Mitigation Measure V-1</i>	<i>Contract provisions will provide direction to Contractor in the event cultural materials are discovered during construction, as described further in Measure V-12 below.</i>	Engineer	Prior to construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure V-2</i>	<i>Contract provisions will provide direction to Contractor in the event human remains are discovered during construction, as described further in Measure V-13 below.</i>	Engineer	Prior to construction	County	
<i>Mitigation Measure V-3</i>	<i>The County Engineer and Project Manager will ensure that the ESA for CA-MEN-1146 will be clearly described and illustrated in the plans and specifications prepared to guide construction of the undertaking.</i>	Engineer/ County	Prior to construction	County	
<i>Mitigation Measure V-4</i>	<i>All responsible parties, including the Project Archaeologist will review the final design plans and bid package to ensure that ESA are included.</i>	Engineer/ County/ Archaeologist	Prior to construction	County	
<i>Mitigation Measure V-5</i>	<i>The County Project Manager will ensure the ESA Action Plan is included in the Environmental Commitment Record (ECR) and the Engineer File.</i>	County	Prior to construction	County	
<i>Mitigation Measure V-6</i>	<i>All responsible parties will ensure that the ESA is discussed during the preconstruction meeting. The importance of the ESA will be discussed with construction personnel and it will be stressed that no construction activity shall occur within the ESA. Additionally, construction personnel will be informed of historic preservation laws that protect archaeological sites against any disturbance or removal of artifacts.</i>	County	Prior to construction	County	
<i>Mitigation Measure V-7</i>	<i>The County Engineer will notify the Project Archaeologist at least ten days in advance of construction to ensure that the Project Archaeologist will be available to monitor fence installation and allow for a field review of the ESA location.</i>	County	Prior to construction	County/ Archaeologist	
<i>Mitigation Measure V-8</i>	<i>All responsible parties will perform a field review of the ESA location at least one calendar week prior to construction activities.</i>	County/ Archaeologist	One week prior to construction mobilization.	County	
The following Mitigation Measures to minimize potential impacts to Cultural Resources will be implemented during construction.					

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure V-9</i>	<i>Driven t-posts or lathe with clearly visible "Area Prohibited" signage will be installed by the Contractor along the proposed ESA for CA-MEN-1146 at least one week prior to initiating any work. The Project Archaeologist will coordinate this activity with the County Engineer, and be present to supervise and monitor fence installation.</i>	Contractor/ County/ Archaeologist	During construction mobilization	County/ Archaeologist	
<i>Mitigation Measure V-10</i>	<i>The Project Archaeologist will be notified when construction begins and will inspect the construction area on a periodic basis to ensure that the ESA is not breached. The County Engineer will visit weekly during construction to ensure the integrity of the ESA.</i>	County	Weekly (County) and periodically (Archeologist) during construction.	County	
<i>Mitigation Measure V-11</i>	<i>The Caltrans Project Archaeologist and State Historic Preservation Officer will be notified by the County Engineer and/or Manager and Project Archaeologist within 24 hours of any ESA breach and consult immediately to determine how the breach will be addressed.</i>	County	Event-driven	County	
<i>Mitigation Measure V-12</i>	<i>In the event that cultural materials are discovered during construction, Contractor shall halt all earth-moving activity within and around the immediate discovery area and will be diverted until a qualified archaeologist can assess the nature and significance of the find.</i>	Contractor/ County	Event-driven	County	
<i>Mitigation Measure V-13</i>	<i>In the event that human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. The County Coroner shall be contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD).</i>	Contractor/ County	Event-driven	County	
The following Mitigation Measures to minimize potential impacts to Cultural Resources will be implemented after construction.					

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure V-14</i>	<i>The County Engineer and/or County Manager will inform the Project Archaeologist and Caltrans Project Archaeologist when construction is finished.</i>	County	Upon completion of construction	County	
<i>Mitigation Measure V-15</i>	<i>The Contractor, under supervision of the County Engineer and/or Project Archaeologist will remove ESA signage at the conclusion of construction.</i>	Contractor/ County/ Archaeologist	Upon completion of construction	County	
VI. GEOLOGY AND SOILS The project site is subject to strong seismic ground shaking and liquefaction. Due to the proximity to Ten Mile Creek, the project could result in substantial soil erosion or the loss of topsoil if not properly mitigated. Mitigation Measures listed for <u>IV-Biological Resources</u> and <u>IX-Hydrology and Water Quality</u> will be implemented in order to assure that sediment and erosion impacts caused by the project are reduced to a less-than-significant level. The following Mitigation Measure will be implemented during design to assure that the structure may suffer damage, but not fail, in a significant seismic event.					
<i>Mitigation Measure VI-1</i>	<i>Vibratory equipment will be specified to be used for pile driving. The piles will be driven to deeper depths calculated to provide an increased factor of safety to avoid the common practice of restriking the piles to determine their bearing capacity.</i>	Engineer	During design	County	
<i>Mitigation Measure VI-2</i>	<i>County will approve the factor of safety that will be the basis of final design.</i>	County	During design	County	
VII. GREENHOUSE GAS EMISSIONS Greenhouse Gas Emissions resulting from this project are calculated to be less than the threshold for construction-related emissions considered by Mendocino County Air Quality Management District to be significant. Impacts resulting from removal of vegetation are temporary, and will be reduced as vegetation becomes reestablished. The following Mitigation Measures are best management practices targeting equipment emissions and will be implemented to assure that potential impacts due to Greenhouse Gas Emissions are reduced to a less than significant level. In addition measures to protect and restore vegetation listed in <u>Section IV-Biological Resources</u> will help reduce Greenhouse Gas Emissions to a less than significant level.					
<i>Mitigation Measure VII-1</i>	<i>Contractor shall assure that construction equipment and vehicles are properly tuned and maintained, and that low sulfur fuel is used in all construction equipment.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure VII-2</i>	<i>Contractor shall limit idling times on trucks and equipment used during construction</i>	Contractor	During construction	County	
VIII. HAZARDS AND HAZARDOUS MATERIALS Mitigation Measures listed in <u>Section IX-Hydrology and Water Quality</u> will assure that potential for impacts from hazards and hazardous materials shall be reduced to a less than significant level. Mitigation Measures in <u>Section XVII-Transportation/Traffic</u> will be implemented to address accessibility for emergency response vehicles to assure that impacts to emergency response efforts shall be reduced to a less than significant level. No additional project specific Mitigation Measures are required under this subject.					
IX. HYDROLOGY AND WATER QUALITY Construction activities could result in impacts to water quality related to erosion and sedimentation due to ground disturbance. Water Quality could be impacted by accidents and mishandling during delivery, storage, use, and disposal of fuels, lubricants, and construction materials. To minimize the potential for impacts, the Contractor shall perform work and complete permanent protection measures in as short a time frame as feasible to provide the most effective protection, and prior to the onset of the rainy season. The Contractor will be required to comply with CASQA Sediment and Erosion Control BMPs, including at a minimum the following protective measures that are designed to protect from impacts due to erosion and sediment transport. Mitigation Measures identified in <u>Section IV-Biological Resources</u> will also help assure that impacts to Hydrology and Water Quality are reduced to a less than significant level. The following Mitigation Measures related to general planning will be implemented to protect Water Quality.					
<i>Mitigation Measure IX-1</i>	<i>A Water Pollution Control Plan (WPCP) will be prepared by the Contractor, and approved by the Engineer, including (BMPs) to address areas where materials, equipment, and operations are to occur adjacent to the stream bank or other areas where the streambank may be disturbed by the work.</i>	Contractor/ Engineer	Prior to construction	County	
<i>Mitigation Measure IX-2</i>	<i>To minimize potential impacts of sedimentation caused by disturbing the channel bottom and bank areas during removal of trees, the Contractor shall cut trees near ground level, leaving root balls intact.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-3</i>	<i>Contractor shall hoist vegetation from the channel, from above, avoiding the use of wheeled or tracked equipment entering the channel to accomplish this task.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IX-4</i>	<i>Contractor will utilize work methods and equipment to avoid the need for using mechanized equipment in the channel bottom to minimize disturbance of the substrate when placing the mitigation materials such as boulders and/or large woody debris described previously in this report.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-5</i>	<i>Contractor shall install silt fences below the work, and fiber rolls along slope contours to intercept runoff, thus minimizing the potential for impacts by reducing flow velocity, releasing runoff as sheet flow, and removing sediment.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-6</i>	<i>Contractor shall install temporary check dams in any area of concentrated flow such as roadside ditch that becomes disturbed by the work to minimize potential impacts by removing sediment from the flow stream.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-7</i>	<i>Contractor shall install storm drain inlet protection in the area of the work to minimize the likelihood of sediment being conveyed to the stream channel.</i>	Contractor	During construction	County	
The following Mitigation Measures related to vehicle and equipment fueling and maintenance, will be implemented to protect Water Quality.					
<i>Mitigation Measure IX-8</i>	<i>Contractor shall perform fueling and maintenance of vehicles and equipment at an offsite facility, whenever possible. Contractor shall designate an area away from drainage courses to be used, if fueling is to take place on site.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-9</i>	<i>Contractor shall maintain absorbent spill cleanup materials and spill kits on the site and shall assure that materials are disposed of properly after use. Contractor shall be properly prepared to begin work with appropriate protective measures in place. Use drip pans or absorbent pads at all times. The equipment should be as leak-free as possible.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IX-10</i>	<i>Contractor shall park equipment over plastic sheeting or equivalent. Plastic sheeting is not a substitute for drop pans or absorbent pads. Use less hazardous products, e.g. vegetable oil, when practicable.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-11</i>	<i>Contractor shall store equipment away from flowlines, drainage courses, and inlets, shall protect hydraulic attachments from run-on by placing them on plywood, and shall cover them with plastic when rain is forecast.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-12</i>	<i>Contractor shall inspect entire work area and equipment for leaks and spills on a daily basis, and shall inspect equipment routinely for damage and repair equipment as needed.</i>	Contractor	During construction	County	
The following Mitigation Measures related to concrete curing will be implemented to protect Water Quality.					
<i>Mitigation Measure IX-13</i>	<i>If using chemical curing compound, Contractor shall avoid overspraying of curing compounds, and shall minimize drift by spraying close to surface. Contractor shall use proper storage, handling, and transporting of the material products.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-14</i>	<i>Contractor may use wet blankets or similar method utilizing water to avoid the use of chemicals but shall minimize volumes used to conserve water, and shall avoid discharge to the surroundings, of the water that has come in contact with freshly placed concrete for minimum of 30 days.</i>	Contractor	During construction	County	
The following Mitigation Measures related to material delivery, storage and use will be implemented to protect Water Quality. The Contractor will comply with CASQA Waste Management and Materials Pollution Control BMPs WM-1 and WM-2, including at a minimum the following protective measures.					
<i>Mitigation Measure IX-15</i>	<i>Contractor shall store materials away from vehicular traffic and away from waterways. Contractor shall monitor storage areas on a daily basis to examine for potential leaks or spills.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-16</i>	<i>The Contractor shall maintain Material Safety Data Sheets (MSDS) for all materials in use or stored at the site.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IX-17</i>	<i>Contractor shall minimize storage of hazardous materials on site. Contractor shall assure that all chemicals are stored in their original labelled containers, with secondary containment if required by codes.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-18</i>	<i>In order to minimize the period of time, for which impacts might occur, Contractor shall remove from the site all materials no longer needed, as soon as possible.</i>	Contractor	During construction	County	
The following Mitigation Measures related to stockpile management will be implemented to protect Water Quality. The Contractor will comply with CASQA Waste Management and Materials Pollution Control BMP WM-3, which include at a minimum the following protective measures.					
<i>Mitigation Measure IX-19</i>	<i>Contractor shall place any stockpile at least 50 ft away from concentrated drainages and watercourses to avoid material becoming waterborne.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-20</i>	<i>Material stockpiled shall be properly covered to avoid transport of sediment during rain events, and from becoming airborne due to wind.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-21</i>	<i>Contractor shall remove stockpiles from the project area as soon as the material is no longer needed to minimize the period of time that the potential for disturbance can occur.</i>	Contractor	During construction	County	
The following Mitigation Measures related to spill prevention and control will be implemented to protect Water Quality. The Contractor will comply with CASQA Waste Management and Materials Pollution Control BMP WM-4, which include at a minimum the following protective measures.					
<i>Mitigation Measure IX-22</i>	<i>In order to avoid potential for improper storage, prolonged cleanup efforts, and delayed response to emergencies, Contractor shall maintain storage, cleanup, and spill reporting instructions for hazardous materials on site. Contractor shall properly store used cleanup materials, and remove promptly from the project site.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-23</i>	<i>To minimize the impact and extent of an accidental spill, Contractor shall maintain a supply of spill cleanup materials where it can be readily accessed.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA

MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
The following Mitigation Measures related to solid waste management will be implemented to protect Water Quality. The Contractor will comply with CASQA Waste Management and Materials Pollution Control BMP WM-5, which include at a minimum the following protective measures.					
<i>Mitigation Measure IX-24</i>	<i>In order to avoid wastage of reusable materials, Contractor shall prepare a "Construction and Demolition Recycling and Reuse Plan" and submit it to Mendocino Solid Waste Management Authority (MSWMA) for construction debris, and dispose of the same according to Mendocino County recommendations for local recycling opportunities.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-25</i>	<i>Contractor shall dismantle the wood and steel walkway, hoisting material from the above, to avoid the need to work on the channel bottom. Any material that must be removed from the creek channel will be hoisted from above.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-26</i>	<i>In order to avoid the spread of invasive species, Contractor shall hand dig to remove invasive vegetative matter (such as roots of Himalayan blackberries which can repropagate) and dispose of offsite. Stripped invasive vegetative matter that will not repropagate (such as blackberry canes) may be placed as mulch over disturbed areas. Hand digging offers the additional advantage of avoiding impacts caused by using mechanized equipment</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-27</i>	<i>Trash facilities shall be located away from the water course, and outside of the 100-year floodplain, to avoid their accidental discharge to the project site.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-28</i>	<i>Contractor shall collect site trash on a daily basis to avoid scavenging and tracking of waste.</i>	Contractor	During construction	County	
The following Mitigation Measures related to hazardous waste management will be implemented to protect Water Quality. The Contractor will comply with CASQA Waste Management and Materials Pollution Control BMP WM-6, which include at a minimum the following protective measures.					
<i>Mitigation Measure IX-29</i>	<i>In order to minimize response time to emergencies and to ensure proper handling, Contractor shall maintain a copy of all Hazardous Waste Manifests.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure IX-30</i>	<i>In order to avoid chemical reactions, to minimize efforts to recycle and dispose of materials, Contractor shall segregate hazardous wastes from non-hazardous wastes on site. Mixing wastes can cause chemical reactions and can make recycling impossible and disposal difficult.</i>	Contractor	During construction	County	
The following Mitigation Measures related to concrete waste management will be implemented to protect Water Quality. The Contractor shall comply with CASQA Waste Management and Materials Pollution Control BMP WM-8, which include at a minimum the following protective measures.					
<i>Mitigation Measure IX-31</i>	<i>In order to avoid spillage and tracing, Contractor shall provide, utilize, and maintain, temporary concrete washout station(s), located in a designated area, at least 50 ft away from watercourse.</i>	Contractor	During construction	County	
<i>Mitigation Measure IX-32</i>	<i>To avoid continued potential for accidental releases or damage, concrete washout station(s) shall be removed from the site as soon as practicable.</i>	Contractor	During construction	County	
The following Mitigation Measures related to sanitary/septic waste management will be implemented to protect Water Quality. The Contractor will provide temporary sanitary facilities for workers.					
<i>Mitigation Measure IX-33</i>	<i>In order to avoid accidental spills reaching the water course, sanitary unit(s) shall be placed away from the watercourse outside of the 100-year floodplain, in a location that can be properly maintained by the service provider. Sanitary/septic wastes should be disposed of according to state and local requirements.</i>	Contractor	During construction	County	
X. LAND USE AND PLANNING Eight trees will be removed because they conflict with work to be performed. Mitigation Measures listed in <u>Section IV-Biological Resources</u> will help assure that potential impacts due to loss of habitat and removal of vegetation are reduced to a less than significant level. No additional project specific mitigations are required under this section.					
XI. MINERAL RESOURCES No project specific mitigations are required under this section.					

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
XII. NOISE <p>Noise during construction could result in impacts to residents and sensitive species. Pile driving will result in excessive noise; however, it will be of a short duration. Pile driving will be accomplished with vibratory pile driving methods, avoiding the use of impact hammer driving, as described earlier in this report. Actual pile driving is anticipated to be completed in one to two days.</p> <p>The following Mitigation Measures will be implemented help assure that impacts due to Noise are reduced to a less than significant level.</p>					
<i>Mitigation Measure XII-1</i>	<i>The County shall provide notifications to local residences, businesses, and school as to dates, durations, and emergency contact telephone numbers prior to the start of pile driving.</i>	County	14 days prior to pile driving tasks	County	
<i>Mitigation Measure XII-2</i>	<i>The noisiest work, that is pile driving, shall be performed during August, if practical, when school is not in session, and breeding and nesting periods have passed. In no case shall pile driving be conducted outside of the period of July 1 – September 15.</i>	Contractor	During construction	County	
<i>Mitigation Measure XII-3</i>	<i>The County will have a plan to deal with complaints; keep a log of complaints and resulting actions.</i>	County	Prior to construction	County	
<i>Mitigation Measure XII-4</i>	<i>To minimize impacts during pile driving, the Contractor shall conduct work in accordance with the Mendocino County Zoning Ordinance-Title 20-Division II of The Mendocino County Code (Ord. No. 4017 (part), adopted 1998), such that the surrounding community and wildlife species shall not be exposed to noise from pile driving for more than 30 minutes in any hour.</i>	Contractor	During construction	County	
<i>Mitigation Measure XII-5</i>	<i>The Contractor's internal combustion engine powered equipment shall be equipped with mufflers of the type recommended by the manufacturer and shall be maintained in good working order.</i>	Contractor	During construction	County	

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
<i>Mitigation Measure XII-6</i>	<i>The Contractor will be encouraged to use quiet plant and machines, which are specifically designed to produce less noise. Generally, electrically powered equipment is noticeably quieter than diesel-powered equipment and hydraulically powered equipment is quieter than pneumatic power. Avoid equipment that is either over- or underpowered.</i>	Contractor	During construction	County	
<i>Mitigation Measure XII-7</i>	<i>The Contractor will arrange the work site to minimize use of movement alarms on vehicles and mobile plant. Ensure that unnecessary noise is avoided, such as dropping of materials.</i>	Contractor	During construction	County	
<i>Mitigation Measure XII-8</i>	<i>The Contractor will be encouraged to maintain machines regularly - simple maintenance can reduce noise levels by as much as 50 per cent, to keep cutting tools sharp, to keep machinery covers and panels closed and well fitted; to replace worn parts; check and replace defective vibration dampers, bearings, and gears; tune and adjust engines.</i>	Contractor	During construction	County	
<i>Mitigation Measure XII-9</i>	<i>The Contractor will, where possible, avoid leaving unnecessary equipment running or idling.</i>	Contractor	During construction	County	
XIII. POPULATION AND HOUSING					
No project specific mitigations are required under this subject.					
XIV. PUBLIC SERVICES					
Mitigation Measures included in <u>XVI-Transportation/Traffic</u> will be implemented to reduce impact to a less-than-significant level.					
No additional project specific mitigations are required under this subject.					
XV. RECREATION					
No project specific mitigations are required under this subject.					

TEN MILE CREEK PEDESTRIAN BRIDGE PROJECT AT BRANSCOMB ROAD, LAYTONVILLE, CA
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION		IMPLEMENTED BY	WHEN IMPLEMENTED	MONITORED BY	VERIFIED BY AND DATE
XVI. TRANSPORTATION/TRAFFIC Project related activities have the potential to impact traffic and access by emergency response vehicles by reducing traffic to one lane, or during full closures for short durations. The following Mitigation Measures will be implemented to assure that impacts related to Transportation/Traffic are reduced to a less than significant level.					
<i>Mitigation Measure XVI-1</i>	<i>Contractor shall secure an encroachment permit from MCDOT prior to the onset of construction activities.</i>	Contractor	Prior to construction mobilization	County	
<i>Mitigation Measure XVI-2</i>	<i>Contractor shall prepare a TCP that meets the current California Manual on Uniform Traffic Control Devices (MUTCD) as well as state and local traffic control regulations. The plan shall address signage, equipment entering and exiting the county road way, accommodating pedestrian traffic safely, managing partial and full traffic closures, and providing emergency response access through the project site at all times.</i>	Contractor	Prior to construction mobilization	County	
<i>Mitigation Measure XVI-3</i>	<i>County shall provide notification to emergency service responders and the public at large of traffic disruptions and closures .</i>	Contractor	During construction	County	
XVII. UTILITIES AND SERVICE SYSTEMS No additional project specific mitigations are required under this subject. However, Mitigation Measures included in <u>Section IV-Biological Resources</u> will help insure that impacts to drainage and to water supply remain less than significant.					