

Mitigation and Monitoring Plan: Placerville Drive at Hangtown Creek Bridge Replacement Project

Mitigation Measure	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency and Duration	Performance Criteria
BIO-1	<p>The following avoidance and minimization efforts shall be implemented in order to reduce potential project effects to FYLF:</p> <ul style="list-style-type: none"> • 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 proposed project area. • A qualified biologist will monitor any vegetation removal in Hangtown Creek. The biologist will monitor the installation of water diversion structures placed in Hangtown Creek. • A qualified biologist will conduct Visual Encounters Surveys. The biologist will conduct the survey a year prior to construction, and would consist of four surveys extending from late spring to early fall. • 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 should also be informed that if a FYLF is encountered in the work area, construction should stop and CDFW contacted for guidance. A training log sign-in sheet will be maintained. • If frogs are found at any time during project work, construction will stop and CDFW will be contacted immediately for further guidance. • 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. • 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 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 five millimeters. • Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate. 	Prior to/During/Post construction	Qualified Biologist /Construction Contractor	The City of Placerville/CDFW	<p>VES Survey: One year prior to construction</p> <p>Preconstruction survey: 24 hours prior to construction</p> <p>Education/Monitoring: on-going during construction</p>	
BIO-2	<p>The following avoidance and minimization efforts shall be implemented to reduce potential project effects to western pond turtle:</p> <ul style="list-style-type: none"> • No more than two weeks prior to the commencement of ground-disturbing activities, the City shall retain a qualified biologist to perform survey for western pond turtle within suitable aquatic and upland habitat within the proposed project site. The biologist (under a scientific collecting permit or a Lake and Streambed Alteration Agreement), will conduct surveys for western pond turtle nests as well as individuals. After notifying CDFW, the qualified biologist 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). 	Prior to/During construction	Qualified Biologist /Construction Contractor	The City of Placerville/CDFW	Preconstruction Survey: two weeks prior	

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	<ul style="list-style-type: none"> Standard construction BMPs shall be implemented throughout construction to avoid and minimize adverse effects to the water quality within the proposed project area. 					
BIO-3	<p>The following avoidance and minimization efforts shall be implemented to reduce potential project effects to bat species:</p> <ul style="list-style-type: none"> A bat survey shall be conducted by a qualified biologist in suitable habitat prior to May 1st. in the event that exclusionary measures are required prior to the active season of this species, no exclusionary efforts should be conducted during May 1st through August 31st of the construction year. If no roosting bats are found, no further mitigation would be necessary. If bats are detected within roosts at the time of the survey, exclusionary measures will be implemented by a qualified biologist to exclude bats from roosts if the roost location is determined to potentially be impacted by construction activities. The timing and other methods of exclusionary measures will be developed by the qualified biologist in order to reduce stress on the bats to the amount feasible while taking into account project schedule. Exclusionary devices, such as plastic sheeting, and plastic or wire mesh, can be used to allow for bats to exit but not re-enter any occupied roosts. Expanding foam and plywood sheets can be used to prevent bats from entering unoccupied roosts. Day-time construction activities will not affect bats foraging at night. Though bats could roost in the trees in the PIA, there is no feasible method of preventing bats from roosting in them, therefore, a preconstruction survey should be conducted an hour prior to sunrise the day of scheduled tree removal activities. If bats are identified roosting in a tree that will be removed, or are roosting immediately adjacent to trees being removed, work will not begin until an appropriate no-work buffer has been established. The size of the no-work buffer zone would be determined by the qualified biologist and submitted to CDFW. The no-work buffer zone would be delineated by highly visible temporary construction fencing. No tree removal would commence within the no-work buffer area until a qualified biologist determines bats are no longer roosting in the trees. 	Prior to/During construction	Qualified Biologist /Construction Contractor	The City of Placerville/CDFW	<p>Preconstruction Bat Survey: prior to May 1st</p> <p>Exclusionary Measures: prior to May 1st</p>	
BIO-4	<p>The following avoidance and minimization efforts shall be implemented to reduce potential project effects to nesting birds and raptors:</p> <ul style="list-style-type: none"> To avoid and minimize impacts to tree and shrub nesting species, the following measures shall be implemented: <ul style="list-style-type: none"> Conduct all tree and shrub removal and grading activities during the non-breeding 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 shall be performed prior to the start of proposed project activities. If construction, grading, or other project-related activities are scheduled during the nesting season (February 1 through August 31), preconstruction surveys for other migratory bird species shall take place no less than 14 days and no more than 30 days prior to the beginning of construction within 250 feet of construction activities, the following measures shall be implemented: <ul style="list-style-type: none"> If the preconstruction surveys do not identify any nesting migratory bird species within areas potentially affected by construction activities, no further mitigation shall be required. If the preconstruction activities do identify nesting bird species within areas that are within 250 feet of construction activities, the following measures shall be implemented: <ul style="list-style-type: none"> Project-related construction impacts shall be avoided by establishment of 	Prior to/During construction	Qualified Biologist /Construction Contractor	The City of Placerville	<p>Tree Removal: September 1 through January 31</p> <p>Preconstruction surveys for removal during nesting season (February 1 through August 31): 14 days and no more than 30 days prior</p>	

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	<p>appropriate no-work buffers to limit Project-related construction activities near the nest site. The size of the no-work buffer zone shall be determined by the qualified biologist and submitted to CDFW. The no-work buffer zone shall be delineated by highly visible temporary construction fencing. In consultation with CDFW, monitoring of nest activity by a qualified biologist shall 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 shall commence within the no-work buffer area until a qualified biologist and CDFW confirms that the nest is no longer active.</p> <p>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 through August 31):</p> <ul style="list-style-type: none"> Remove all existing unoccupied nests on the bridge during the non-nesting season (September 1 through January 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 nesting season. Daily monitoring at the beginning of each work day shall be implemented to inspect all listed structures for nesting activity while exclusion devices are in place. A weekly log would be submitted to the project biologist. The contractor would continue inspections until bridge removal and completion of construction of the new bridge. If an exclusion device were found to be ineffective or defective, the contractor would complete repairs to the device within 24 hours. If birds were found trapped in an exclusion device, the contractor will notify the qualified biologist who would remove the birds in accordance with 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 would 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 would in no way relieve the contractor of full responsibility for deterring nesting. 					
BIO-5	<p>The following avoidance and minimization measures shall be implemented in order to reduce potential project effects to valley foothill riparian habitat.</p> <ul style="list-style-type: none"> Prior to the removal of any trees, the project proponent shall acquire a Woodland Alteration Permit from the City. Prior to the removal of any trees, an International Society of Arboriculture (ISA) 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 proposed project. The survey shall follow standard professional practices. Existing riparian vegetation, oaks, and other native tree species shall be retained to the extent feasible. A Tree Protection Zone (TPZ) shall be established around any tree or group of trees to be avoided. The TPZ shall be delineated by an ISA 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 shall 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 	Prior to/During/Post construction	International Society of Arboriculture (ISA) Certified Arborist/ Construction Contractor	The City of Placerville	<p>Prior to tree removal: conduct a tree survey</p> <p>An annual five-year monitoring program for riparian vegetation</p>	

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	<p>stored within the TPZ.</p> <ul style="list-style-type: none"> • Riparian habitat located in the vicinity of the proposed project will be protected by installing high-visibility construction fencing. Fencing will 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 the riparian habitat (as determined by a qualified biologist). The location of fencing will be marked in the field with stakes and flagging and shown on the construction drawings. The construction specifications will 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 will be erected along the protective fencing at a maximum spacing of one sign per 50 feet of fencing. The signs will 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 will be clearly readable at a distance of 20 feet and will be maintained for the duration of construction activities in the area. • Where riparian vegetation occurs along the edge of the construction easement, the City will 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. • Where avoidance of riparian vegetation is not shown on the project plans, a revegetation plan and a three-year monitoring plan to restore native riparian habitat in the Project vicinity to a self-sustaining, ecologically functioning plant community shall be implemented. The revegetation plan will be approved during the permitting process. • The revegetation plan includes, but is not limited to, plant salvage, seeds, and seedlings obtained from local native sources and irrigation. The following performance standards are suggested for the revegetation plan: <ul style="list-style-type: none"> o Vegetation shall have no less than 80 percent survival rate; o There shall be no excessive rills, gullies, or other erosion features; o There shall be no noxious or invasive species; and, o A properly functioning irrigation system shall be installed providing hook-up to a water truck. • An annual five-year monitoring program shall be implemented and shall employ standard ecological methods to estimate plant cover and to document survival rates and growth characteristics and shall be reviewed by the City, CDFW, RWQCB, USFWS, NOAA Fisheries, and the Corps. At the end of this period, the success of the restoration effort will be assessed against the restoration goals (i.e., 80 percent survival of plantings, 75 percent vegetative cover by desirable species, absence of substantial cover of invasive species and a viable, self-sustaining plant community). Based upon final restoration performance, a determination will be made in coordination with the CDFW, USFWS, and NOAA Fisheries as to whether or not the project achieved the final mitigation goals. 					
BIO-6	<p>The following compensatory mitigation shall be implemented for the removal of valley foothill riparian habitat.</p> <p>To compensate for the permanent removal of riparian vegetation associated with implementation of the proposed project, the City shall compensate for riparian tree and shrub removal by replacing habitat at a minimum 3:1 ratio (i.e., 3 acres for every one acre removed) as well as associated native</p>	Prior to construction	The City of Placerville	CDFW	City shall compensate for riparian tree and shrub removal at a minimum 3:1 ratio	

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	herbaceous species. The revegetation site will be identified during final design or the City will purchase sufficient mitigation credits at a CDFW-approved bank.					
BIO-7	<p>The following avoidance and minimization measures shall be implemented in order to prevent potential project effects to federally protected wetlands.</p> <p>During construction, water quality will be protected by implementation of BMPs of the California Stormwater Quality Association (2016). BMPs designed to address water quality (and related special-status species) impacts are described below and will be finalized with the Project engineer, City, RWQCB, and other appropriate agencies.</p> <ul style="list-style-type: none"> • The Contractor will develop and implement a toxic materials control and spill response plan to regulate the use of hazardous materials, such as the petroleum-based products used as fuel and lubricants for equipment and other potentially toxic materials associated with project construction. • Standard Construction BMPs will be described in full in the project’s SWPPP or Water Pollution Control Plan (WPCP). These BMPs will be implemented throughout construction to avoid and minimize adverse effects to the water quality within the project site. Appropriate erosion control measures will be used (including, but not limited to, straw wattles, filter fences, vegetative buffer strips, or other accepted equivalents) to reduce siltation and contaminated runoff from project sites. All erosion control materials, including straw wattles and erosion control blanked material, used on-site will be biodegradable. Use of erosion control containing plastic monofilament will not be allowed as wildlife may become entrapped in this material. Wattles should be wrapped with 100 percent biodegradable materials like burlap, jute, or coir. • Measures will be implemented during ground-disturbing activities to reduce erosion and sedimentation. These measures can include, but are not limited to, mulches, soil binders/erosion control blankets, silt fencing, fiber rolls, and temporary berms. • Existing vegetation will be protected, using temporary fencing or other protection devices where feasible, to reduce erosion and sedimentation. • Exposed soils will be covered by loose bulk materials or other materials, such as visqueen, to reduce erosion and runoff during rainfall events. • Exposed soils will be stabilized, through watering or other measures, to prevent the movement of dust at the project site caused by winds and construction activities such as traffic and grading activities. • Temporary berms will be constructed along the tops of slopes to prevent water from running uncontrolled from slopes during construction activities. Water will be collected in these berms and taken down the slopes in an erosion-proof drainage system. Sediment that is collected within these berms will be allowed to “settle out” and will be removed from the site. • All erosion control measures, and storm water control measures will be properly maintained until the site has returned to a pre-construction state. • All disturbed areas will be restored to preconstruction contours and revegetated, either through hydroseeding or other means, with native or approved non-invasive toxic species. • All construction materials will be hauled off-site after completion of construction activities. 	During/Post construction	Construction Contractor	The City of Placerville	Implementation of BMPs during construction.	
CUL-1	If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. Depending on the nature of the find, a qualified professional archaeologist, meeting the Secretary of the Interior’s Professional Qualification Standards for prehistoric or historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate,	During construction	Qualified Professional Archaeologist/ Construction Contractor	The City of Placerville	The construction crew shall immediately cease work in the vicinity of the find.	

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	<p>using professional judgment. The following notifications shall apply, as necessary:</p> <ul style="list-style-type: none"> If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the lead agency. If the find is determined to be eligible for inclusion in the National Register or California Register, the lead agency shall consult on a finding of eligibility and implement appropriate treatment measures. Work may not resume within the no-work radius until the lead agency, through consultation as appropriate, determines that the site either: 1) is not eligible for the National Register or California Register; or 2) that the treatment measures have been completed to its satisfaction. If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the El Dorado County Coroner (in accordance with § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction. 				<p>If Human Remains, the archaeologist will notify the El Dorado County coroner.</p> <p>If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD)</p>	
GEO-1	<p>If paleontological resources are discovered during earth-moving activities, the construction crew shall immediately cease work in the vicinity of the find and shall notify the City planning department. The project applicant shall retain a qualified paleontologist to evaluate the resource and prepare a proposed mitigation plan in accordance with Society of Vertebrate Paleontology (SVP) guidelines (1995). The proposed mitigation plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations determined by the lead agency to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.</p>	During construction	Qualified Paleontologist/ Construction Contractor	The City of Placerville	The construction crew shall immediately cease work in the vicinity of the find.	
PUB-1	<p>Construction Period Emergency Access Plan. Prior to the start of construction, the contractor shall coordinate with the Placerville Police Department, El Dorado County Sheriff's Office, El Dorado County Fire District, 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.</p>	Prior to construction	Construction Contractor	The City of Placerville	Coordinate and develop Construction Period Emergency Access Plan	

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TCR-1	<p>If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. A Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC §21074). The Tribal Representative will make recommendations for further evaluation and treatment as necessary.</p> <p>When avoidance is infeasible, preservation in place is the preferred option for mitigation of TCRs, and every effort shall be made to preserve the resources in place, including through project redesign, if feasible. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, or returning objects to a location within the project area where they will not be subject to future impacts. Permanent curation of TCRs will not take place unless approved in writing by the California Native American Tribe that is traditionally and culturally affiliated with the project area.</p> <p>The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a TCR may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil.</p>	During construction	A Tribal Representative from a California Native American / Construction Contractor	The City of Placerville	<p>The construction crew shall immediately cease work in the vicinity of the find.</p> <p>The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary.</p>	
FIRE-1	<p>Fire Safety Plan. Prior to the start of construction, the contractor shall coordinate with the EDCFD to prepare a Fire Safety Plan for use during construction. The Fire Safety Plan shall contain notification procedures and emergency fire precautions including, but not limited to, the following:</p> <ul style="list-style-type: none"> • Dry grass shall be cut low or removed from construction equipment staging areas. • All internal combustion engines, stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order. • Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. Said vehicle types shall maintain their factory-installed (type) muffler in good condition. • Equipment parking areas (staging areas) shall be cleared of all extraneous flammable materials. • Personnel shall be trained in the practices of the Fire Safety Plan relevant to their duties. Construction personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. • Smoking shall be prohibited in wildland areas and shall be limited to paved areas or areas cleared of all vegetation. 	Prior to/During construction	Construction Contractor	The City of Placerville	Coordinate and prepare a Fire Safety Plan for use during construction	