MITIGATION, MONITORING, AND REPORTING PLAN

Western Pacific Interceptor Canal Culvert Replacement Project Yuba County, CALIFORNIA

This mitigation monitoring or reporting plan (MMRP) is designed to fulfill Section 21081.6 (a) of the California Public Resources Code (CEQA). Section 21081.6 (a) requires that public agencies adopt a reporting or monitoring program whenever a project or program is approved that includes mitigation measures identified in an environmental document for which the agency makes a finding pursuant to CEQA Section 21081 (a) (1). The mitigation measures and strategies described below and in the attached table are to be used to avoid, minimize, or reduce any potentially significant environmental impacts.

The MMRP table includes the following:

- Section and Impacts identifies the issue area section of the Initial Study/Mitigated Negative Declaration (IS/MND) and corresponding impact.
- Mitigation Measures lists the adopted mitigation measures from the IS/MND.
- Implementation Timing identifies the timing of implementation of the action described in the mitigation measures.
- Responsible for Implementation identifies the agency/party responsible for implementing the actions described in the
 mitigation measures. The Central Valley Flood Protection Board (CVFPB) and Department of Water Resources Sutter
 Maintenance Yard (SMY) will be responsible for implementing mitigation measures.
- Responsible for Monitoring identifies the agency/party responsible for monitoring implementation of the actions described in the mitigation measures.

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
4.3 Air Quality The project would require the use of equipment that produces fumes containing criteria pollutants regulated by the Feather River Air Quality Management District	Submittal of a Fugitive Dust Control Plan. Must be received prior to beginning construction work on the project.	Prior to Construction	CVFPB	CVFPB

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
(FRAQMD). FRAQMD requires that any project occurring in the district implement FRAQMD's Standard Mitigation Measures.	Implement the Fugitive Dust Control Plan Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringelmann 2.0). The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation. Limiting idling time to 5 minutes, this saves fuel and reduces emissions. (State idling rule: commercial diesel vehicles- 13 CCR Chapter 10 Section 2485 effective 02/01/2005; off road diesel vehicles- 13 CCR Chapter 9 Article 4.8 Section 2449 effective 05/01/2008). Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators. Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may	During Construction	CVFPB	CVFPB

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	include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of throughtraffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites. Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with the ARB or the District to determine registration and permitting requirements prior to equipment operation at the site.			

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4.4 Biological Resources				
The following Federal and State listed species were identified as occurring or having the potential to occur in the vicinity of the project area and could be impacted by construction activities. • Valley elderberry longhorn beetle (Desmocerus californicus dimorphus) (VELB) (Federal Threatened); • Tricolored blackbird (Agelaius tricolor) (CDFG Emergency listed Endangered); • Swainson's hawk (Buteo swainsoni) (State Threatened) • Giant gater snake (Thamnophis gigas) (Federally Threatened, State Threatened); • Western Pond Turtle (Emys marmorata)(State Species of Concern)	Pre-Construction Environmental Awareness Training: An Environmental Scientist will develop and administer an environmental awareness training program to all construction personnel before construction activities begin. All construction staff working on the project will be required to attend an on-site environmental awareness training given by the environmental staff prior to the commencement of construction activities. The training will include information regarding species identification, natural history, habitat, mitigation measures of special status species (e.g. giant garter snake (GGS), Swainson's Hawk, tricolored blackbird, etc.) and sensitive habitats, including vernal pools, which occur south of the proposed project site.	Prior to construction	CVFPB	CVFPB
	Biological Monitor:	During Construction	CVFPB	CVFPB

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
	An Environmental Scientist will be onsite during ground disturbing activities. If a sensitive species is encountered during construction, the Environmental Scientist shall be contacted and activities shall cease until appropriate corrective measures have been completed or it has been determined that the species will not be harmed.			
	Pre-Construction Wildlife, Bird and Plant Surveys:	Prior to Construction	CVFPB	CVFPB
	Pre-construction surveys for wildlife, bird nests (including song bird nests), special status plants, and/or sensitive habitats will be conducted by a qualified biologist prior to construction activities. Additionally, pre-construction surveys shall be implemented as follows:			
	Swainson's Hawk If work is to be conducted during the nesting season (April 1-August 31), pre-construction surveys will be completed prior to construction work within one-half mile of the project	Prior to construction	CVFPB	CVFPB

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
	site to identify any active nests (eggs or juveniles). Surveys will be completed in accordance with the Recommended Timing and Methodology for Swainson's Hawk nesting Surveys in California's Central Valley (SWA TAC 2000). If an active nest is identified, work will not occur within ¼ mile of the nest until the young has fledged the nest. Tricolored Blackbird and other special status raptors If work is to be conducted during the nesting season (mid-March – early August), pre-construction surveys will be completed prior to construction work within 250 feet of the project site. If an active nest is identified, impacts will be avoided by establishment of appropriate buffers to minimize the impacts. The size of the buffers may be adjusted, depending on the project activity and stage of the nest, if a qualified biologist determines that activity within a reduced buffer would not be	Prior to Construction	CVFPB	CVFPB

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
	likely to adversely affect the adults or their young. No trees or other vegetation with an active nest will be removed until a qualified biologist confirms that the nest is no longer active. Valley Elderberry Longhorn Beetle: An Environmental Scientist will	Prior to construction	CVFPB	CVFPB
	survey the vegetation prior to removal to determine if elderberry shrubs are present. If there are elderberry shrubs, the shrubs will be avoided and conservation measures will be implemented according to USFWS protocol.			
	Giant Garter Snake: No more than 24 hours prior to construction activities, the project area will be surveyed for GGS by an Environmental Scientist. Surveys will cover all upland habitat within 200 feet of GGS aquatic habitat and will be repeated if a lapse in construction activity of 2 weeks or greater occurs. CVFPB will report any sighting and any incidental take	Prior to and during construction	CVFPB	CVFPB

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
	to USFWS immediately by telephone at (916) 414-6600 and to CDFW at (916) 358-4353.			
	Western Pond Turtle: An Environmental Scientist will survey WPT habitat before work commences. If a western pond turtle is identified within the construction or project footprint area, work will not proceed until the turtle has moved out of the construction or project footprint area on its own.	Prior to and during construction	CVFPB	CVFPB
	Avoid and Minimize Impacts to Giant Garter Snake:	Prior to Construction	CVFPB	CVFPB
	At least 15 days prior to the commencement of ground-disturbing activities, de-watering activities will take place in the aquatic area directly adjacent to the eastern embankment, where the failed culvert meets the water. After 15 days, exclusionary fencing will be erected around the perimeters of the culvert replacement project site. Prior to fencing installation, the			

fence line shall be mowed (with a minimum height of 6 inches) in order		
to conduct a surface survey of potential burrows. Fencing shall be installed with a minimum of 6 inches buried in the ground and a minimum of 24 inches above ground. Fence staking shall be installed on the inside of the exclusion area. Oneway escape funnels shall be installed every 50 – 100 feet and sealed along the fence line, to provide an escape for any giant garter snake that may within the exclusion area. The fencing shall enclose the entirety of the site, to the greatest extent feasible. There is open-water to the east of the site, where a cofferdam is to be installed during construction. CVFPB will work with CDFW and USFWS to determine best placement of exclusion fencing within this area. The fencing will be inspected before the start of each work day and maintained by the project proponents until completion of the project. The fencing will be removed		

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	only when the project activities within WPIC culvert replacement and staging area site are completed. Exclusion fencing will be maintained as well as any marked features of the construction and staging areas adjacent to sensitive biological resources.			
	All construction activity within potential GGS habitat, including marshes, sloughs, ponds, irrigation canals, drainage ditches, and flooded rice fields, will occur from May 1 to September 15. This includes in-water construction and work outside the active stream channel. If construction activity within GGS habitat starts prior to May 1 or may go beyond September 15, USFWS and CDFW will be contacted and additional measures may be necessary to avoid take. If additional measures are deemed necessary they will be implemented.	During construction	CVFPB	CVFPB
	CDFW and USFWS will be notified prior to the start of construction.	During Construction	CVFPB	CVFPB

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
	If vehicles will be left onsite overnight, they will be surveyed by a biological monitor in the morning to see if GGS are present. If a GGS if found, it will be left alone and construction staff will wait to start up the engine until the snake has left the site on its own.			
	Keep speeds to 20 mph on all roadways within the project footprint.	During Construction	CVFPB/ SMY	CVFPB
	Vegetation clearing will be confined to the minimal area necessary to facilitate construction activities. GGS habitat, including marshes, sloughs, ponds, irrigation canals, drainage ditches, and flooded rice fields, within or adjacent to the project site will be flagged and designated as environmentally sensitive areas. These areas will be avoided by all construction personnel.	Prior to Construction	CVFPB	CVFPB
	Any temporary fill and construction debris will be removed after completion of construction activities,	After construction is complete	CVFPB	CVFPB

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	and, wherever feasible, disturbed areas will be restored to pre-project conditions.			
	Movement of heavy equipment will be confined to existing roadways, top of the eastern embankment and staging areas, where feasible, to minimize habitat disturbance.	During construction	SMY	CVFPB
	CVFPB shall coordinate with USFWS and CDFW to develop and implement an appropriate mitigation strategy to compensate for temporary habitat disturbance and reduce the potential for take of giant garter snake. Mitigation would likely include purchasing created giant garter snake habitat at a USFWS-and CDFW-approved mitigation bank. Appropriate mitigation ratios shall be developed during consultation with USFWS and CDFW. CVFPB shall obtain incidental take authorization if deemed necessary by USFWS and/or CDFW. The performance standard is anticipated to be no net	Prior to Construction	CVFPB	CVFPB

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
	loss of giant garter snake habitat. Avoid and Minimize Impacts to Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp:	During construction	SMY	CVFPB
	Construction equipment will be required to stay at least 250 feet away from potential habitat of Vernal Pool Fairy and Tadpole Shrimps. Potential habitat at the project site includes the vernal pool south of Plumas Arboga Road. An Environmental Scientist will provided SMY staff with a map of the channel including delineation of the wetlands and a 250 foot buffer around the wetlands to avoid.			
	Avoidance of Wetlands by Construction Equipment: Construction equipment will avoid driving in the wetted portions of the channel and vernal. The staging area for equipment storage will be located outside of the wetted portions of the channel.	During construction	SMY	CVFPB

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
	Revegetation to Compensate for Construction-Related Effects: Disturbed soil areas will be stabilized using appropriate erosion control BMPs during and at the completion of construction activities. If hydroseeding is used to cover disturbed areas, native grass/forb/herbaceous plant, sterile rye, or other non-invasive seed mixes will be used. If any trees need to be removed or trimmed, a certified arborist will be present to supervise tree removal and trimming to preserve tree health and ensure that appropriate methods are used. Any native willows, oaks and/or other native plantings to be removed will be replanted in or near the project area.	After construction	SMY	CVFPB
4.6 Cultural Resources No archaeological resources are known to exist in or around the proposed project site. The probability that proposed project implementation could impact buried archaeological deposits is considered to be low given that proposed project activities would be limited to a maximum of eight feet	If historical or unique archaeological resources are accidentally discovered during project activities, all work would temporarily cease in the immediate area until the findings can be assessed by a qualified archaeologist and an appropriate	During construction	CVFPB	CVFPB

Section and Impacts	Mitigation Measures	Implementation Timing	Responsible for Mitigation	Responsible for Monitoring
deep below the crest of the existing embankment. This soil has previously been disturbed for construction of the WPIC levee and existing culvert. Therefore, there is little chance that intact archaeological resources will be encountered during project construction.	course of action can be determined. If the find is found to be an historical or unique archaeological resource, time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation must be available (CEQA Guidelines §15064.5[f]).			
It is not anticipated that proposed project implementation would disturb any human remains, including those interred outside of formal cemeteries. The presence of human remains is unlikely given that no archaeological sites have been identified in the proposed project area and there would be minimal ground disturbance. AB 52 defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American triba". Consultation with Native American tribal representatives did not identify any tribal cultural resources within the project area or immediate vicinity.	If human remains are found, such remains would be subject to the provisions of California Public Resources Health and Safety Code Section 7050.5(b). The requirements and procedures would be implemented, including immediately stopping work in the vicinity of the find and notifying the County Coroner. A DWR archaeologist would also need to be contacted immediately. If the remains are determined to be those of a Native American, the process for notification of the California Native American Heritage Commission (NAHC) and consultation with the individual(s) identified by the NAHC as the "most likely descendent" is set forth in Section 5097.98 of the California Public Resources Code. Work in the vicinity of the find can restart after	During construction	CVFPB	CVFPB

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	the remains have been investigated and appropriate recommendations have been made for their treatment and disposition.			
	If prehistoric archaeological resources or human remains are discovered during construction, DWR will consult with tribal representatives identified by the Native American Heritage Commission to determine whether the find is a tribal cultural resource and to identify culturally appropriate treatment. This consultation will take place concurrently with mitigation measures CULT-1 and/or CULT-2, as appropriate.	During construction	CVFPB	CVFPB
4.8 Hazards and Hazardous Materials Construction vehicles on site may require emergency maintenance that may result in the release of oil, diesel, transmission fluid or other materials. These materials would not be used in quantities or be stored in a manner that would pose a significant hazard.	Diesel fuel and oil will be used, stored and disposed in accordance with standard protocols for handling of hazardous materials. All personnel involved in use of hazardous materials will be trained in emergency response and spill	During construction	CVFPB	CVFPB

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	control.			
	During construction activities, SMY staff will prevent oil, grease, fuels, and other petroleum products, toxic chemicals, and any other substances that could be deleterious to aquatic life from contaminating the soil and/or entering waters of the state. SMY staff will immediately remove such substances from any place where they could enter waters of the state and/or adversely affect fish and wildlife resources. SMY staff will attempt to contain any releases or spills of such substances, and shall report any significant spills as soon as possible to the California Emergency Management Agency (Cal-EMA). In the event of a significant spill, work will cease immediately and workers will employ containment methods if it is safe to do so. CVFPB will make notifications to the appropriate agencies within the regulatory time frames.	During Construction	SMY	CVFPB
	A turbidity curtain placed in the water immediately adjacent of the project will reduce impacts to water	Prior to construction	SMY	CVFPB

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	quality, and in-water work will be avoided to the extent practicable.			
4.9 Hydrology and Water Quality				
The proposed project consists of removing and replacing a damaged culvert, minimal vegetation removal, and re-grading the eastern embankment within the project footprint. The proposed project would use equipment that will be driving adjacent to the toe of the eastern embankment and may be stored in the dry portions of the WPIC channel. Mitigation Measure BIO-4 would ensure that the proposed project would not violate water quality standards or discharge requirements. In addition, installation of the turbidity curtain in the wetted area just east of the damaged culvert will provide added water quality protection.	Avoidance of Wetlands by Construction Equipment: Construction equipment will avoid driving in the wetted portions of the channel and vernal pools. The staging area for equipment storage will be located outside of the wetted portions of the channel.	During construction	SMY	CVFPB