

Attachment H

Mitigation Monitoring and Reporting Plan

Impact Statement	Mitigation Measure (Exact Text)	Party Responsible for Implementation and Reporting	Review and Approval by:	Monitoring and Reporting Actions	Implementation Schedule -Design -Pre-construction -Construction -Operation	Verification: Status/ Date Completed/ Initials
Aesthetics						
AES-2: New sources of substantial light or glare	AES-2: Nighttime Construction Lighting: Nighttime construction lighting, if required, shall be shielded and oriented downward to minimize effects on any nearby receptors. Lighting shall be directed toward active construction areas only, and shall have the minimum brightness necessary to ensure worker safety.	City of Modesto	City of Modesto	1. Confirm that lighting measures are included in contract documents 2. Monitor construction activities to verify that measures are implemented during construction. Document compliance and retain in the project file.	1. Design 2. Construction	1._____ 2._____
Agriculture Resources						
AG-1: Convert farmland to non-agricultural use	AG-1: Stockpile Soil: Topsoil removed during project construction shall be stockpiled for later reuse. Soil shall be stored in a clear area of the construction site where it would not have the potential to affect agricultural or biological resources. Stockpiled soil shall be covered with a tarp at all times to prevent generation of fugitive dust. Following pipeline insertion, soil shall be backfilled into the trench and restored to an appropriate level of compaction.	City of Modesto	City of Modesto	1. Confirm that soils stockpiling requirements are included in contract specifications 2. Monitor construction activities to verify that measures are implemented during construction. Document compliance and retain in the project file.	1. Design 2. Construction	1._____ 2._____
Air Quality						
AIR-1: Construction emissions of criteria pollutants and precursors ENE-1: Inefficient, wasteful, or unnecessary use of energy resources	AIR-1: Reduce NOx Emissions: NOx emissions associated with construction activities shall be reduced to 10 tons per year through on-site equipment and hauling vehicle mitigation measures to the extent feasible. All vehicles and equipment used during construction shall be maintained and properly tuned in accordance with the manufacturer’s specifications to perform at EPA certification levels and to perform at verified standards applicable to retrofit technologies. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure CCR Title 13 Section 2485). Emissions reduction methods may be chosen from any combination of the following measures: <ul style="list-style-type: none">Minimize the use and trips of construction equipment and trucks by consolidating trips and loads to the extent feasibleMinimize unnecessary idling by shutting off equipment and trucks when not in use to the extent feasible and comply with CARB idling regulations.Conduct periodic unscheduled inspections to ensure equipment is maintained properly and in accordance with manufacturer’s recommendations and excessive idling is not occurring.Prepare inventory of all equipment prior to construction consistent with SJVAPCD Indirect Source Review Rule.Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow. The contractor will be encouraged to implement the following measures to the extent feasible before implementation of off-site mitigation measures and identify why the measures are infeasible if not implemented in particular due to economic infeasibility: <ul style="list-style-type: none">Use alternative fueled vehicles.Use newer tier engines such as EPA Tier 4 exhaust emissions standards for heavy-duty nonroad compression ignition engines.Use of newer on-highway vehicles that meet the EPA exhaust emissions standards for model year 2010 and	City of Modesto	City of Modesto, SJVAPCD	1. Confirm that air quality measures are included in contract documents 2. Review estimated emissions and, if needed implement VERA with SJVAPCD 3. Monitor construction activities to verify that measures are implemented during construction. Document compliance and retain in the project file.	1. Design 2. Pre-construction 3. Construction	1._____ 2._____ 3._____

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	<p>newer heavy-duty on-highway compression ignition engines</p> <ul style="list-style-type: none">• Use phased material hauling trips• Use after-market pollution control devices to reduce emissions• Lengthen the construction schedule to reduce the annual intensity of construction activities <p>If all feasible on-site measures have been implemented and annual emissions are anticipated to still be above 10 tons per year for NOx, then the project proponent shall enter into a Voluntary Emissions Reduction Agreement (VERA) with SJVAPCD. The VERA would provide pound-for-pound mitigation of air emissions increases down to a net zero emissions per year as required under general conformity through a process that develops, funds, and implements emission reduction projects. SJVAPCD would serving as role of administrator of the emissions reduction projects and verifier of the successful mitigation effort.</p>					
Biological Resources						
BIO-1: Effects on special-status plants	BIO-1a: Avoid or Minimize Impacts to Special-Status Plant Species: To the extent feasible, project-related activities shall avoid habitats with the potential to support special-status plants, including alkali flats, alkali scrub, alkali pools, and freshwater wetlands. To the extent feasible, the proposed project shall minimize potential impacts to special-status plants by utilizing trenchless construction techniques within habitats with the potential to support special-status plants.	City of Modesto	City of Modesto	1. Confirm that locations of facilities avoid sensitive habitats to the extent feasible through siting and use of trenchless techniques. Document compliance and retain in the project file.	1. Design	1._____
BIO-1: Effects on special-status plants	BIO-1b: Perform Focused Surveys for Special-Status Plant Species in Suitable Habitats: Within one year prior to commencement of construction activities, a qualified botanist shall perform surveys for special-status plant species within potentially suitable habitat in the vicinity of open-cut construction areas (Survey areas are shown in Attachment A to the MMRP). Floristic surveys shall be performed according to the Protocols for Surveying and Evaluating Impacts to Specials Status Native Plant Populations and Natural Communities (CDFG 2009 or current version). Floristic surveys shall include the use of a reference population, as reasonably feasible, to increase the likelihood of detection, and shall be performed during the appropriate bloom period(s) for each species. If special-status plants are detected within a 100-foot radius or within the microwatershed of an open-cut construction area (including pits that would be used for trenchless construction), Mitigation Measure BIO-1c shall be implemented.	City of Modesto	City of Modesto	1. Confirm completion of surveys.	1. Pre-construction	1._____
BIO-1: Effects on special-status plants	BIO-1c: Monitor or Compensate for Impacts to Special-Status Plant Species: The locations of special-status plants within the microwatershed or within 100 feet of construction areas shall be marked and the size of the population shall be recorded. Locations of special-status plant populations shall be clearly identified in the field by staking, flagging, or fencing. The plants shall be monitored throughout the duration of construction to determine if the project has resulted in adverse effects (direct or indirect), as determined by a qualified botanist. If the botanist determines that special-status plants may have been adversely effected, then the Partner Agencies shall implement measures to compensate for the impact. Compensation measures may include transplanting perennial species, seed collection and dispersal for annual species, and other conservation strategies that shall restore and protect the viability of the local population. If minimization measures are implemented, monitoring of plant populations shall be conducted annually for 5 years to assess the mitigation’s effectiveness. The performance standard for the mitigation shall be no net reduction in the size or viability of the local population.	City of Modesto	City of Modesto	1. Confirm that plant locations are marked. 2. Monitor construction activities to verify that measures are implemented during construction. 3. Document implementation of compensation plan if botanist determines plants were affected 4. Monitor success of plantings, if needed. Document compliance and retain in the project file.	1. Pre-construction 2. Construction 3. At completion of construction 4. 5 years of monitoring after plant populations are established	1._____2._____3._____4._____
BIO-1: Effects on special-status plants BIO-3: Effects on valley elderberry longhorn beetle BIO-4: Effects of project	BIO-1d: Develop and Implement a Frac-out Contingency Plan for Trenchless Construction: Prior to constructing a crossing(s) of the San Joaquin River, a Frac-out Prevention and Contingency Plan shall be developed and submitted by the City of Modesto to the California State Lands Commission for review. At minimum, the plan shall prescribe the measures to ensure protection of aquatic resources, special-status plants and wildlife, including: <ul style="list-style-type: none">• Procedures to minimize the potential for a frac-out associated with horizontal directional drilling;• Procedures for timely detection of frac-outs;	City of Modesto	City of Modesto, CDFW, California State Lands Commission	1. Confirm that frac-out plan is developed and measures are included in contract documents 2. Monitor construction activities to verify that measures are implemented during construction.	1. Design 2. Construction	1._____2._____

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construction on special-status fishes BIO-15: Effects on riparian habitat and other sensitive natural communities BIO-16: Effects on federally protected wetlands BIO-18: Conflict with local ordinances or policies protecting biological resources HYD-1: Violation of Water Quality Standards and/or Waste Discharge Requirements (Due to Construction Activities)	<ul style="list-style-type: none">Procedures for timely response and remediation in the event a frac-out; and Monitoring of drilling and frac-out response activities by a qualified biologist.			Document compliance and retain in the project file.		
BIO-2: Effects on vernal pool fairy branchiopods BIO-15: Effects on riparian habitat and other sensitive natural communities BIO-18: Conflict with local ordinances or policies protecting biological resources	BIO-2a: Avoid Impacts to Vernal Pool Branchiopods and their Habitat: To the extent feasible, the project-related activities shall avoid impacts to habitat with the potential to support Conservancy fairy shrimp, longhorn fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp, including alkali pools and swales. Avoidance shall be defined as no direct or indirect effects to suitable habitat. This shall be accomplished by avoiding construction within the microwatershed of suitable habitat for vernal pool branchiopods.	City of Modesto	City of Modesto	1. Confirm that facilities are sited to avoid sensitive habitats to the extent feasible. Document compliance and retain in the project file.	1. Design	1._____
BIO-2: Effects on vernal pool fairy branchiopods	BIO-2b: Minimize and Compensate for Impacts to Vernal Pool Fairy Shrimp and Their Habitat: If direct or indirect impacts to habitat with the potential to support vernal pool branchiopods cannot be avoided then the following measures shall be implemented: <ul style="list-style-type: none">Implement a storm water pollution prevention plan (SWPPP) to reduce the potential for sediments and contaminants to enter pools or depressions where vernal pool branchiopods may occur;After construction, restore surface topography and drainage to pre-construction conditions; andProvide off-site compensation for permanent, temporary, and indirect impacts at ratios determined through consultation with USFWS. The performance standard shall be no net loss in acreage or habitat quality for vernal pool branchiopods, as determined through consultation with USFWS.	City of Modesto	City of Modesto, USFWS	1. Confirm that SWPPP addresses protection of vernal pool habitats. 2. Monitor construction activities to verify that measures are implemented during construction. 3. Document restoration to pre-construction conditions 4. Monitor success of off-site mitigation, if needed. Document compliance and retain in the project file.	1. Pre-construction 2. Construction 3. At completion of construction 4. 5 years of monitoring after plant populations are established	1._____2._____3._____4._____
BIO-3: Effects on valley elderberry longhorn beetle	BIO-3a: Avoid Impacts to Valley Elderberry Longhorn Beetle: To the extent feasible, the project shall adhere to avoidance measures outlined in USFWS’ Conservation Guidelines for Valley Elderberry Longhorn Beetle (USFWS 1999). This shall include the following avoidance measures: <ul style="list-style-type: none">No less than 120 days prior to commencing construction, the locations of elderberry plants within 200 feet of open-cut construction areas shall be identified;Fence and flag all areas to be avoided during construction activities including all established elderberry shrubs within 200 feet of open-cut construction that will not be impacted by construction activities;No open-cut construction within 100 feet of the dripline of elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level;Construction personnel shall participate in a Contractor Environmental Awareness Training (CEAT). The CEAT shall communicate the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements. The CEAT will instruct work crews about the status of the beetle and the	City of Modesto	City of Modesto, USFWS	1. Confirm that measures protecting elderberry bushes are included in plans and contract documents 2. Confirm that plant locations are identified, flagged and fenced with appropriate signage in place. 3. Confirm completion of CEAT, and retain sign-in sheet in file 4. Monitor construction activities to verify that avoidance measures are implemented during construction. Document compliance and retain in	1. Design 2. Pre-construction 3. Pre-construction 4. Construction	1._____2._____3._____4._____

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	<p>need to protect its elderberry host plant;</p> <ul style="list-style-type: none">Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs will be maintained for the duration of construction; andNo insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant would be used within 100 feet of any elderberry plant.			the project file.																										
BIO-3: Effects on valley elderberry longhorn beetle	BIO-3b: Minimize or Compensate for Impacts to Valley Elderberry Longhorn Beetle: If elderberry plants occur within 100 feet of open-cut construction, their locations shall be reported to the USFWS. In areas where encroachment on the 100-foot buffer has been approved by USFWS, a minimum setback of at least 20 feet from the dripline of each elderberry plant shall be provided, as feasible. For any encroachment into the 100-foot buffer or removal of elderberry plants, the Partner Agencies shall implement measures to compensate for impacts to VELB. Compensation measures shall be consistent with USFWS’ <i>Conservation Guidelines for Valley Elderberry Longhorn Beetle</i> (USFWS 1999). This shall include establishment of a project-specific VELB Conservation Area or purchase of credits at a USFWS-approved mitigation bank. If the Partner Agencies establish a project-specific Conservation Area, the population of VELBs, the general condition of the Conservation Area, and the condition of the elderberry and associated native plantings in the Conservation Area shall be monitored over a period of ten (10) years. Monitoring and reporting shall be conducted in accordance with the Conservation Guidelines for VELB (USFWS 1999). A minimum survival rate of at least 60 percent of the elderberry plants and 60 percent of the associated native plants shall be maintained throughout the monitoring period.	City of Modesto	City of Modesto USFWS	1. Confirm that locations of elderberry plants are reported to USFWS. 2. Verify implementation of compensation measures. 3. Monitor plantings, if required. Document compliance and retain in the project file.	1. Pre-construction 2. Pre-construction 3. 10 years of monitoring after plant populations are established	1._____ 2._____ 3._____																								
BIO-4: Effects of project construction on special-status fishes	BIO-4a: Minimize Pile Driving-related Impacts to Special Status Fish: If impact pile driving activities occur adjacent to the San Joaquin River between October 1 and May 31, the Project Proponents shall adhere to the following restrictions on the number of allowable strikes for a 24 hour period: <table><tr><th>Distance from San Joaquin River (Meters)</th><th>Distance from San Joaquin River (Feet)</th><th>Maximum Number of Strikes per 24 hours¹</th></tr><tr><td>75</td><td>246</td><td>130</td></tr><tr><td>150</td><td>492</td><td>365</td></tr><tr><td>225</td><td>738</td><td>672</td></tr><tr><td>300</td><td>984</td><td>1035</td></tr><tr><td>375</td><td>1230</td><td>1447</td></tr><tr><td>450</td><td>1476</td><td>1902</td></tr><tr><td>>450</td><td>>1476</td><td>no limit</td></tr></table>	Distance from San Joaquin River (Meters)	Distance from San Joaquin River (Feet)	Maximum Number of Strikes per 24 hours ¹	75	246	130	150	492	365	225	738	672	300	984	1035	375	1230	1447	450	1476	1902	>450	>1476	no limit	City of Modesto	City of Modesto	1. Confirm that pile driving restrictions are included in contract documents 2. Monitor construction activities to verify that measures are implemented during construction. Document compliance and retain in the project file.	1. Design 2. Construction	1._____ 2._____
Distance from San Joaquin River (Meters)	Distance from San Joaquin River (Feet)	Maximum Number of Strikes per 24 hours ¹																												
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>450	>1476	no limit																												
BIO-6: Effects on giant garter snake BIO-17: Effects on movement of fish and wildlife and use of breeding sites	BIO-6: Avoid and Minimize Impacts to Giant Garter Snake: The following measures shall be implemented to avoid or minimize impacts to GGS: <ul style="list-style-type: none">Trenchless construction techniques shall be used to construct the pipeline crossing in potential aquatic habitat for GGS (applicable to Alternatives 1 and 2 only);Construction personnel shall participate in a Contractor Environmental Awareness Training (CEAT). Under this program, workers shall be informed about GGS and habitat, the species life history, conservation goals, identification of the snake, and procedures to follow in the event of a possible sighting;Within 24-hours prior to commencement of construction activities, the site shall be inspected by a qualified biologist who is approved by the USFWS. The biologist shall provide the Service with a field report form	City of Modesto	City of Modesto USFWS	1. Confirm that locations of facilities avoid GGS habitat to the extent feasible through siting and use of trenchless techniques. 2. Confirm that erosion control measures and limitations on staging areas are included in the contract documents. 3. Confirm completion of CEAT	1. Design 2. Design 3. Pre-construction 4. Pre-construction 5. Construction 6. Construction	1._____ 2._____ 3._____																								

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	<p>documenting the monitoring efforts within 24-hours of commencement of construction activities. A qualified biologist shall be on-site during all construction activity within 200 feet of potential habitat for GGS (Survey areas are shown in Attachment A to the MMRP). If a snake is encountered during construction activities, the biologist shall have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake would not be harmed;</p> <ul style="list-style-type: none">Erosion control materials including silt curtains, silt fencing, and erosion control wattles shall be regularly inspected for entanglement or entrapment of the snake. No erosion control devices containing plastic netting (including photo- or biodegradable plastic netting) shall be used;Stockpiling of construction materials, portable equipment, vehicles, and supplies shall be restricted to the designated construction staging areas which shall be greater than 200 feet from GGS aquatic habitat;Clearing of wetland vegetation, if any, shall be confined to the minimal area necessary to construct the pipeline or intake; andAfter completion of construction activities, any temporary fill and construction debris shall be removed. Disturbed areas shall be restored to pre-project conditions. Restoration work shall include replanting native emergent vegetation, where appropriate.			<p>and retain sign-in sheet in file.</p> <p>4. Verify completion of pre-construction surveys</p> <p>5. Verify submittal of field report to USFWS.</p> <p>6. Monitor construction activities to verify that measures are implemented during construction.</p> <p>7. Verify restoration to pre-project conditions</p> <p>Document compliance and retain in the project file.</p>	<p>7. Post-construction</p>	<p>4. _____</p> <p>5. _____</p> <p>6. _____</p> <p>7. _____</p>
<p>BIO-8: Effects on western pond turtle</p> <p>BIO-17: Effects on movement of fish and wildlife and use of breeding sites</p>	<p>BIO-8: Avoid and Minimize Impacts to Western Pond Turtle: The following measures shall be implemented to avoid or minimize impacts to western pond turtle:</p> <ul style="list-style-type: none">To the extent feasible, trenchless construction techniques shall be used where pipelines cross potential aquatic habitat for western pond turtle;Construction personnel shall participate in a Contractor Environmental Awareness Training (CEAT). Under this program, workers shall be informed about western pond turtle and their habitat, conservation goals, identification, and procedures to follow in the event of a possible sighting; andPre-construction surveys for western pond turtle shall be conducted by a qualified biologist 14 days before and 24 hours before the start of construction activities where suitable habitat exists (Survey are shown in Attachment A to the MMRP). If western pond turtle or their nests are observed during pre-construction surveys, the following measures shall be implemented:<ul style="list-style-type: none">A qualified biologist shall be on site to monitor construction in suitable habitat. If a western pond turtle is present within 50 feet of a construction area, no vegetation clearing or ground disturbing activities shall be conducted until the turtle leaves the area on its own volition.If western pond turtle nests are identified in the work area during pre-construction surveys, a 100-foot no-disturbance buffer shall be established between the nest and any areas of potential disturbance. Buffers shall be clearly marked with temporary fencing. Construction shall not be allowed to commence in the exclusion area until hatchlings have emerged from the nest, or the nest is deemed inactive by a qualified biologist.	<p>City of Modesto</p>	<p>City of Modesto</p>	<p>1. Confirm that locations of facilities avoid aquatic habitat to the extent feasible through siting and use of trenchless techniques.</p> <p>2. Confirm that limitations on construction in turtle habitat areas are included in the contract documents.</p> <p>3. Confirm completion of CEAT and retain sign-in sheet in file.</p> <p>4. Verify completion of pre-construction surveys</p> <p>5. Verify buffers are established if turtles are found during surveys.</p> <p>6. Monitor construction activities to verify that measures are implemented as needed during construction.</p> <p>Document compliance and retain in the project file.</p>	<p>1. Design</p> <p>2. Design</p> <p>3. Pre-construction</p> <p>4. 14 days and 24 hours Pre-construction</p> <p>5. Pre-construction</p> <p>6. Construction</p>	<p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p> <p>6. _____</p>

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BIO-9: Effects on burrowing owl BIO-17: Effects on movement of fish and wildlife and use of breeding sites	<p>BIO-9: Avoid, Minimize, or Compensate for Impacts to Burrowing Owl: Prior to initiating ground-disturbing activities, surveys for burrowing owls shall be conducted in accordance with protocols established in the Staff Report on Burrowing Owl Mitigation (CDFG 2012 or current version). If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, the site shall be resurveyed. If burrowing owls are detected, disturbance to burrows shall be avoided during the nesting season (February 1 through August 31). Buffers shall be established around occupied burrows in accordance with guidance provided in the Staff Report on Burrowing Owl Mitigation, and at the discretion of a qualified wildlife biologist. Buffers around occupied burrows shall be a minimum of 656 feet (200 meters) during the breeding season, and 160 feet (100 meters) during the non-breeding season. Buffer distances shall be subject to the approval of CDFW.</p> <p>If occupied burrows cannot be avoided, passive owl relocation techniques may be implemented outside of the nesting season (February 1 through August 31). Owls would be excluded from burrows within 160 feet of construction by installing one-way doors in burrow entrances. The work area shall be monitored daily for 1 week to confirm owl departure from burrows prior to any ground-disturbing activities. Where possible burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.</p> <p>If occupied burrows are relocated, the Partners Agencies shall enhance or create burrows in adjacent habitat at a 1:1 ratio (burrows destroyed to burrows enhanced or created) one week prior to implementation of passive relocation techniques. If burrowing owl habitat enhancement or creation takes place, the Partners Agencies shall develop and implement a monitoring and management plan to assess the effectiveness of the mitigation. The plan shall be subject to the approval of CDFW.</p>	City of Modesto	City of Modesto, CDFW	<p>1. Confirm that requirements for burrowing owl protection are included in the contract documents.</p> <p>2. Verify completion of pre-construction surveys and resurveys, if needed.</p> <p>3. Verify buffers are established if owls are found during surveys.</p> <p>4. Verify completion of passive relocation, if needed</p> <p>5. Verify completion of habitat enhancement, if needed.</p> <p>6. Monitor construction activities to verify that measures are implemented as needed during construction.</p> <p>7. Monitor effectiveness of habitat enhancement, if needed.</p> <p>Document compliance and retain in the project file.</p>	<p>1. Design</p> <p>2. Pre-construction</p> <p>3. Pre-construction</p> <p>4. Pre-construction</p> <p>5. Pre-construction</p> <p>6. Construction</p> <p>7. Post-construction</p>	<p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p> <p>5. _____</p> <p>6. _____</p> <p>7. _____</p>
BIO-10: Effects on tricolored blackbird BIO-17: Effects on movement of fish and wildlife and use of breeding sites	<p>BIO-10: Avoid and Minimize Impacts to Tricolored Blackbird Nesting Colonies: The following measures shall be implemented to avoid or minimize impacts to tricolored blackbird:</p> <ul style="list-style-type: none">To the extent feasible, trenchless construction techniques shall be used in areas that support emergent vegetation;During the breeding season (February 1 through August 31), pre-construction surveys for tricolored blackbird shall be conducted in suitable nesting habitat by a qualified biologist no more than 15 days prior to scheduled work. Suitable nesting habitat includes any of the following: (a) dense vegetation near open water; (b) emergent marsh vegetation, especially cattails and bulrush; (c) thickets of willow, blackberry, wild rose, or thistles; or (d) silage and other grain fields such as sorghum; andIf tricolored blackbird breeding is detected, a 500 foot no-disturbance buffer shall be established around the breeding site. The buffer shall be maintained until a qualified biologist has determined that young have fledged and are no longer reliant upon the nest or parental care for survival.	City of Modesto	City of Modesto	<p>1. Confirm that locations of facilities avoid emergent vegetation to the extent feasible through siting and use of trenchless techniques.</p> <p>2. Verify completion of pre-construction surveys.</p> <p>3. Verify buffers are established if tricolored blackbirds are found during surveys.</p> <p>4. Monitor construction activities to verify that measures are implemented as needed during construction.</p> <p>Document compliance and retain in the project file.</p>	<p>1. Design</p> <p>2. Within 15 days Pre-construction</p> <p>3. Pre-construction</p> <p>4. Construction</p>	<p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>4. _____</p>

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BIO-12: Effects on raptors including special-status species BIO-17: Effects on movement of fish and wildlife and use of breeding sites	BIO-12: Avoid, Minimize, or Compensate for Impacts to Raptors including Special-status species: <ul style="list-style-type: none">If ground and vegetation disturbing activities occur between February 1 and September 15, a nesting raptor survey, with a focus on Swainson’s hawk and white-tailed kite, shall be conducted in accordance with Recommended Timing and Methodology for Swainson’s Hawk Nesting Survey’s in California’s Central Valley (Swainson’s Hawk Technical Advisory Committee 2000, or current CDFW guidance). Surveys shall cover a minimum of a 0.5-mile radius around potentially suitable nesting habitat for Swainson’s hawk and white-tailed kite (Survey areas are shown in Attachment A to the MMRP). Agricultural lands within 1,000 feet of open-cut construction areas shall be surveyed for northern harrier nests.If nesting raptors are detected, a no-disturbance buffer shall be established around the nest. Buffers shall be established by a qualified biologist, with consultation with the California Department of Fish and Wildlife, as appropriate. No construction activities shall be initiated within the buffer until fledglings are fully mobile and no longer reliant upon the nest or parental care for survival. Construction must either be started before nests are established, or if nesting birds are already present, construction within the buffer zone would have to be delayed until nesting is done for the season.If an active Swainson’s hawk or white-tailed kite nest is located within a 0.5-mile radius of an active work area, a biologist shall be on site daily to monitor the nest. The biologist shall monitor for behavioral changes that would suggest the birds are stressed by construction activity or the nest may be abandoned. Such behaviors may include excessive vocalization, a startled response coincident with a loud noise or changes in the viewshed, or prolonged absence from the nest by adults. If the biologist determines that nest success may be adversely impacted by construction, then construction shall be discontinued within 0.5 mile of the nest.Trees that would need to be removed for construction would be surveyed to determine if they are suitable for raptor nesting.If potential raptor nesting trees are to be removed during construction activities, removal shall take place outside of Swainson’s hawk nesting season. Suitable nest trees for raptors shall be replaced at a ratio of 3:1 with appropriate species [e.g., valley oak (Quercus lobata), coast live oak (Q. agrifolia), Fremont cottonwood (Populus fremontii)]. The trees shall be planted within 5 miles of the removal location, in areas appropriate for raptor nesting, and on land owned or managed by one of the Partner Agencies. If replacement planting is implemented, monitoring shall be conducted annually for 5 years to assess the mitigation’s effectiveness. The performance standard for the mitigation shall be 65% survival of all replacement plantings.	City of Modesto	City of Modesto CDFW	1. Confirm that requirements for raptor protection are included in the contract documents. 2. Verify completion of pre-construction surveys of habitat and trees to be removed. 3. Verify buffers are established if raptors are found during surveys. 4. Monitor construction activities to verify that measures are implemented as needed during construction. 5. Confirm replacement of nest trees, if needed. 6. Monitor plantings, if required. Document compliance and retain in the project file.	1. Design 2. Pre-construction 3. Pre-construction 4. Construction 5. Pre-construction 6. 5 years of monitoring after trees are planted	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

Impact Statement	Mitigation Measure (Exact Text)	Party Responsible for Implementation and Reporting	Review and Approval by:	Monitoring and Reporting Actions	Implementation Schedule -Design -Pre-construction -Construction -Operation	Verification: Status/ Date Completed/ Initials
BIO-13: Effects on special-status passerine species and birds protected under the MBTA BIO-17: Effects on movement of fish and wildlife and use of breeding sites	BIO-13: Avoid and Minimize Impacts to Special-status passerine species and other Birds Protected under the MBTA: <ul style="list-style-type: none">If ground and vegetation disturbing activities occur between February 1 and September 15, a survey for nesting birds shall be conducted within a 500-ft radius of the construction area. If nests are detected, buffers around nests shall be established. No-disturbance buffers around special-status passerine nests shall be 500 feet and 250 feet for non-listed birds protected under the MBTA and Fish and Game Code sections 3503 and 3513, unless a qualified CDFW biologist determines that smaller buffers shall be sufficient to minimize impacts to nesting birds. Factors to be considered for determining buffer size shall include: the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; and baseline levels of noise and human activity. Buffers shall be maintained until a qualified biologist has determined that young have fledged and are no longer reliant upon the nest or parental care for survival.Prior to commencing a crossing(s) of the San Joaquin River the Project Partners shall conduct surveys for LBV in accordance with USFWS’ Least Bell’s Vireo Survey Guidelines (USFWS 2011a). If LBV are detected during the surveys, the Project Partners shall consult with the USFWS to determine appropriate avoidance measures. The performance standard for avoidance shall be no potential impacts to an established LBV nest. This shall be accomplished by establishing a no-disturbance buffer around the active nest. The no-disturbance buffer shall be a minimum of 500 feet, but may be larger depending on site specific conditions and consultation with USFWS.	City of Modesto	City of Modesto CDFW USFWS	1. Confirm that requirements for nesting bird protection are included in the contract documents. 2. Verify completion of pre-construction surveys of habitat and trees to be removed. 3. Verify buffers are established if nesting birds are found during surveys. 4. Monitor construction activities to verify that measures are implemented as needed during construction. 5. Verify completion of LBV surveys. 6. Verify consultation with USFWS, if LBV are found during surveys 7. Verify avoidance measures approved by USFWS are implemented. Document compliance and retain in the project file.	1. Design 2. Pre-construction 3. Pre-construction 4. Construction 5. Pre-construction 6. Pre-construction 7. Pre-construction	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____
BIO-14: Effects on special-status mammals	BIO-14a: Avoid and Minimize Impacts to San Joaquin kit fox: <ul style="list-style-type: none">Project-related activities will avoid affecting the alkali scrub/flat habitat in the action area. Avoidance is defined as no direct or indirect effects to habitat.A qualified biologist will conduct preconstruction surveys no less than 14 days and no more than 30 days before the commencement of activities to identify potential dens more than 5 inches in diameter within 200 feet of ground disturbing activities. The Project Partners will implement USFWS’ (2011b) Standardized Recommendations for Protection of San Joaquin Kit Fox Prior to or During Ground Disturbance. The Project Partners will notify USFWS in writing of the results of the preconstruction survey within 30 days after these activities are completed.If potential dens are located within the proposed work area and cannot be avoided during construction activities, a USFWS-approved biologist will determine if the dens are occupied. If occupied dens are present within the proposed work, their disturbance will be avoided. Exclusion zones will be implemented following the most current USFWS procedures (currently USFWS 2011b). The Project Partners will notify USFWS immediately if a natal or pupping den is found in the survey area, and will present the results of pre-activity den searches within 5 days after these activities are completed and before the start of construction activities in the area.	City of Modesto	City of Modesto USFWS	1. Confirm that requirements for habitat avoidance and kit fox protection are included in the contract documents. 2. Verify completion of pre-construction surveys of kit fox habitat. 3. Verify notification of USFWS. 4. Verify completion of occupancy surveys 5. Verify establishment of exclusions zones if kit fox dens are found. 6. Verify consultation with USFWS, if natal or pupping den is found Document compliance and retain in the project file.	1. Design 2. 14 to 30 days Pre-construction 3. Within 30 days of completion of surveys 4. Pre-construction 5. Pre-construction 6. Within 5 days of completion of surveys	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

		Party Responsible for Implementation and Reporting	Review and Approval by:	Monitoring and Reporting Actions	Implementation Schedule -Design -Pre-construction -Construction -Operation	Verification: Status/ Date Completed/ Initials
Impact Statement	Mitigation Measure (Exact Text)					
BIO-15: Effects on riparian habitat and other sensitive natural communities BIO-16: Effects on federally protected wetlands BIO-18: Conflict with local ordinances or policies protecting biological resources	BIO-16a: Avoid and Minimize Impacts to Federally Protected Wetlands: To the extent feasible, project-related activities shall avoid federally protected wetlands. To the extent feasible, the proposed project shall minimize potential impacts to federally protected wetlands by utilizing trenchless construction techniques. A SWPPP shall be implemented to reduce the potential for sediments and contaminants to enter wetlands and waters. After construction, surface topography and drainage shall be restored to pre-construction conditions. Where appropriate, revegetation shall be implemented with site-adapted native species.	City of Modesto	City of Modesto, USACE	1. Confirm that facilities are sited to avoid wetlands 2. Confirm that SWPPP addresses protection of wetlands and waters. 3. Confirm restoration of drainages to pre-construction conditions	1. Design 2. Pre-construction 3. Construction	1._____ 2._____ 3._____
BIO-15: Effects on riparian habitat and other sensitive natural communities BIO-16: Effects on federally protected wetlands	BIO-16b: Obtain Regulatory Permits for Work Activities Taking Place in Wetlands and Waters of the United States and the State: Work within areas defined as waters of the U.S. that includes placement of fill will require a CWA Section 404 permit and Section 401 Water Quality Certification. All work proposed in jurisdictional waters of the U.S. shall be authorized under these permits, and the work shall comply with the general and regional conditions of the permits. In areas where disturbance to jurisdictional waters or wetlands occurs, the Partner Agencies shall implement mitigation consistent with the terms of a CWA Nationwide Permit and/or the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (73 C.F.R. 19594). Compensatory mitigation may include creation, re-establishment, or enhancement of wetlands in the Project Area or at an off-site location. Compensatory mitigation may also include purchase of credits at an approved mitigation bank or contribution to an approved in-lieu fee program.	City of Modesto	City of Modesto USACE	1. Confirm permit requirements are included in the contract documents 2. Confirm permit has been obtained. 3. Confirm mitigation required by permit has been implemented.	1. Design 2. Pre-construction 3. Pre-construction	1._____ 2._____ 3._____
BIO-CUM-2: Effects on fish species and their habitats	BIOCUM-1: Assistance with Salmonid Recovery Plan Actions: The NVRRWP Project Partners would work with Reclamation and with resource agencies, including NMFS, USFWS, and CDFW to assist in implementation the following recovery actions from the Recovery Plan for Central Valley Chinook Salmon and Steelhead. <ul style="list-style-type: none"> Implement projects that improve wastewater treatment in the San Joaquin River watershed. The NVRRWP as designed would reduce the input of nutrients and salinity to the San Joaquin River, and as such the proposed project already addresses this recovery action. Develop and implement a spawning gravel augmentation plan in the San Joaquin River. The NVRRWP Project Partners would make a cash contribution to an existing restoration program or organization working to augment spawning gravels. The funding could assist in programs being implemented as part of Reclamation’s San Joaquin River Restoration Program, the USFWS Anadromous Fish Restoration Program, or other relevant restoration program. 	City of Modesto	City of Modesto USFWS NMFS CDFW	1. Confirm funding has been provided to recovery program.	1. Pre-construction	1._____
Cultural Resources						
CUL-1: Substantial adverse change in the significance of a unique archaeological resource or disturb any human remains, including those interred outside of formal cemeteries. CUL-2: Cause a substantial adverse change in the significance of a historical resource	CUL-1a: Discovery of previously unknown archaeological resources during construction: The following measures shall be implemented in the event of unexpected discovery of archaeological resources: <ul style="list-style-type: none"> The project proponent shall note on any construction plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources. The Partner Agencies shall retain a Professional Archaeologist to provide a pre-construction briefing to supervisory personnel of any excavation contractor to alert them to the possibility of exposing significant prehistoric archaeological resources within the study area. The briefing shall discuss any archaeological objects that could be exposed, the need to stop excavation at the discovery, and the procedures to follow regarding discovery protection and notification of the project proponent and archaeological team. The project proponent shall retain a Professional Archaeologist on an “on-call” basis during ground disturbing construction for the project to review, identify and evaluate cultural resources that may be inadvertently exposed during construction. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under CEQA. If cultural resources are encountered during the project, construction personnel shall avoid altering these materials and their context until a Professional Archaeologist has evaluated the situation. Project personnel 	City of Modesto	City of Modesto Reclamation	1. Confirm that the contract documents include measures requiring appropriate handling of inadvertent discoveries 2. Confirm that construction personnel have attended training. Retain sign-in sheet in project file 3. Confirm that on-call archaeologist has been retained. 4. If cultural resources are discovered, confirm that construction is halted and appropriate measures are taken.	1. Design 2. Pre-construction 3. Pre-construction 4. Construction	1._____ 2._____ 3._____ 4._____

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	<p>shall not collect or retain cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, and pestles; and dark, friable soil containing shell and bone, dietary debris, heat-affected rock, or human burials. Historical resources include stone or adobe foundations or walls, structures and remains with square nails, and refuse deposits, often in old wells and privies.</p> <ul style="list-style-type: none">If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource, he/she shall notify the Partner Agencies and other appropriate parties of the evaluation and recommended measures to mitigate effects to a less-than significant impact. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data recovery, among other options. Treatment of any significant cultural resources shall be undertaken with the approval of the U.S. Bureau of Reclamation and other lead agencies.Any identified cultural resources shall be recorded on forms DPR 422 (archaeological sites) and/or DPR 523 (historic properties) or similar forms by a Professional Archaeologist.					
CUL-1: Substantial adverse change in the significance of a unique archaeological resource or disturb any human remains, including those interred outside of formal cemeteries.	<p>CUL-1b: Discovery of human burials during construction: The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity within the project shall comply with applicable State laws. This shall include immediate notification of the Stanislaus County Coroner (Stanislaus County Sherriff's Office).</p> <p>In the event of the coroner's determination that the human remains are Native American, notification of the Native American Heritage Commission (NAHC) is required. The NAHC shall be notified by phone within 24 hours of the discovery and shall be afforded the opportunity to appoint a Most Likely Descendant (MLD) (PRC Section 5097.98). The archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. California Public Resources Code allows 48 hours to reach agreement on these matters. If the MLD and the other parties do not agree on the reburial method, the project will follow PRC Section 5097.98(b) which states that "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."</p>	City of Modesto	City of Modesto County Coroner NAHC	1. Confirm appropriate notifications have occurred if human burials are encountered. 2. Confirm human remains have been accorded appropriate treatment	1. Construction 2. Construction.	1. _____ 2. _____
CUL-3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	<p>CUL-3: Discovery of paleontological resources during construction: If paleontological resources are discovered during earthmoving activities, the construction crew would immediately cease work near the find. In accordance with Society of Vertebrate Paleontology guidelines (Society of Vertebrate Paleontology 2010), a qualified paleontologist would assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation.</p>	City of Modesto	City of Modesto	1. If resources are found confirm work is stopped and appropriate measures are taken.	1. Construction .	1. _____
Geology, Soils, and Seismicity						
GEO-1: Facility damage and exposure of people to hazards from strong seismic groundshaking	<p>GEO-1: Perform Design-Level Geotechnical Evaluations for Seismic Hazards: During the design phase for the proposed project, perform site-specific, design-level geotechnical evaluations to identify potential secondary ground failure hazards (i.e., seismically-induced settlement) associated with the expected level of seismic ground shaking. A geotechnical memorandum shall be prepared to detail the findings of the evaluations.</p> <p>The geotechnical analysis will provide recommendations to mitigate those hazards in the final design and, if necessary, during construction. The design-level geotechnical evaluations, based on the site conditions, location, and professional opinion of the geotechnical engineer, may include subsurface drilling, soil testing, and analysis of site seismic response to determine appropriate feasible measures to be incorporated into the project design. The performance standard to be used in the geotechnical evaluations will be minimization of the hazards associated with liquefaction and seismic groundshaking. The geotechnical engineer will review the seismic design criteria of facilities to ensure that facilities are designed to withstand the highest expected peak acceleration, set forth by the California Building Code for each site, and ensure that secondary ground failures, such as liquefaction, are minimized. Recommendations resulting from findings of the geotechnical study will be incorporated into the design and construction of proposed facilities.</p>	City of Modesto	City of Modesto	1. Confirm geotechnical evaluations have been completed 2. Confirm that contract documents include recommendations of geotechnical study.	1. Design 2. Design.	1. _____ 2. _____

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GEO-2: Facility damage and exposure of people to hazards from liquefaction and lateral spreading	GEO-2: Perform Design-Level Geotechnical Evaluations for Soil Expansion: During the design phase for all components of the project, a design-level geotechnical evaluation to determine the presence and characteristics of potentially compressible and expansive soils, the engineering properties of the foundation material, and the depth and thickness of soil layers will be completed. The results of the investigations will include measures that would reduce soil expansion to a less-than-significant level. Feasible mitigation measures could include removal and replacement of soil, deep foundations, or deep mixing of compressible or expansive soils with stabilizing agents. All mitigation measures included in the geotechnical evaluation will be incorporated into the project design specifications.	City of Modesto	City of Modesto	1. Confirm geotechnical evaluations have been completed 2. Confirm that contract documents include recommendations of geotechnical study.	1. Design 2. Design.	1._____ 2._____
Hazards and Hazardous Materials						
HAZ-1: Create a Hazard through Reasonably Foreseeable Upset and Accident Conditions Involving Release of Hazardous Materials into the Environment HAZ-3: Conflict with Any Adopted Emergency Response Plan or Emergency Evacuation Plan	HAZ-1a: Hazardous Materials Management and Spill Prevention Control Plan: Prior to the start of construction, the construction contractor shall be required to prepare a Hazardous Materials Management Spill Prevention and Control Plan that includes a project-specific contingency plan for hazardous materials and waste operations. The Plan shall be applicable to construction activities, and shall establish policies and procedures according to applicable codes and regulations, including but not limited to the California Building and Fire Codes, and federal and California Occupational Safety and Health Administration (OSHA) regulations. Elements of the Plan shall include, but not be limited to, the following: <ul style="list-style-type: none">A discussion of hazardous materials management, including delineation of hazardous material storage areas, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas;Notification and documentation of procedures; andSpill control and countermeasures, including employee spill prevention/response training.	City of Modesto	City of Modesto	1. Confirm requirement for Hazardous Materials Management Spill Prevention and Control Plan is included in the contract documents 2. Confirm contractor has prepared Plan 3. Confirm that plan is implemented	1. Design 2. Pre-construction 3. Construction	1._____ 2._____ 3._____
HAZ-2: Expose People or Structures to a Significant Risk of Loss, Injury or Death Involving Wildland Fires HAZ-3: Conflict with Any Adopted Emergency Response Plan or Emergency Evacuation Plan	HAZ-2: Prevention of Fire Hazards: During construction of the proposed project, the construction contractor shall require staging areas, welding areas, or areas slated for construction be cleared of dried vegetation or other materials that could ignite. Construction equipment that includes a spark arrestor shall be maintained in good working order. In addition, construction crews shall have a spotter during welding activities to look out for potentially dangerous situations, such as accidental sparks. Other construction equipment shall be kept in good working order and used only within cleared construction zones. During construction of the proposed project, contractors shall require vehicles and crews working at the project site to have access to functional fire extinguishers.	City of Modesto	City of Modesto	1. Confirm requirements for fire prevention are included in the contract documents 2. Confirm that measures are implemented	1. Design 2. Construction	1._____ 2._____
Hydrology and Water Quality						
HYD-1: Violation of Water Quality Standards and/or Waste Discharge Requirements (Due to Construction Activities)	HYD-1a: Comply with the Construction General Permit: To minimize the impacts to water quality from construction activities, the proposed project shall implement measures contained in the Construction General Permit including the development of a SWPPP.	City of Modesto	City of Modesto	1. Confirm requirement for SWPPP is included in the contract documents 2. Confirm preparation of SWPPP	1. Design 2. Pre-construction	1._____ 2._____

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HYD-1: Violation of Water Quality Standards and/or Waste Discharge Requirements (Due to Construction Activities)	<p>HYD-1b: Implement BMPs to Control Erosion and Sediment During Construction: The SWPPP shall specify that all construction activities shall implement multiple BMPs to provide effective erosion and sediment control. These BMPs shall be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMPs to be implemented as part of this mitigation measure shall include, but are not limited to, the following measures:</p> <ul style="list-style-type: none">• Temporary erosion control measures, such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover, shall be employed for disturbed areas;• Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events;• Grass or other vegetative cover will be re-established on unpaved areas of the construction site as soon as possible after disturbance. In paved areas, any removed paving will be replaced as soon as possible; and• Soil stockpiling sites will be located such that they do not drain directly into the San Joaquin River or irrigation canals. <p>Multiple BMPs used in combination, properly installed and maintained, can achieve significant sediment removal. BMPs proposed by the project contractor shall be subject to approval by the project proponent, and the project proponent shall require that all parties performing construction under the proposed project incorporate into contract specifications the requirement that the contractor(s) comply with and implement these provisions. The contractor shall also include provisions for monitoring during and after construction activities to verify that these standards are met.</p>	City of Modesto	City of Modesto	1. Review and approve SWPPP 2. Confirm implementation of BMPs	1. Pre-construction 2. Construction	1._____ 2._____
HYD-1: Violation of Water Quality Standards and/or Waste Discharge Requirements (Due to Construction Activities)	<p>HYD-1c: Comply with the General Order for Dewatering or Other Appropriate NPDES Permit: To minimize the impacts to water quality from dewatering activities, the proposed project shall implement measures contained in the General Order for Dewatering or other appropriate NPDES permit or Waste Discharge Requirement.</p>	City of Modesto	City of Modesto	1. Confirm requirement for permit is included in the contract documents 2. Confirm permit obtained	1. Design 2. Pre-construction	1._____ 2._____
Noise						
NOI-1: Temporary Construction-Related Noise Increases	<p>NOISE-1: Noise Reduction Measures: To reduce the impact of noise from construction activities the following measures shall be implemented to the extent feasible:</p> <ul style="list-style-type: none">• Construction activities shall be limited to the hours of 7:00 am to 7:00 pm, Monday to Friday.• Construction staging areas shall be as far as possible from existing residences.• Construction equipment noise shall be minimized during project construction by muffling and shielding intakes and exhaust on construction equipment per the manufacturers’ specifications and by shrouding or shielding impact tools. All equipment shall have sound-control devices no less effective than those provided by the manufacturer.• All stationary noise generating construction equipment shall be placed as far away as possible from sensitive receptors on in an orientation minimizing noise impacts (e.g. behind barriers or storage piles).	City of Modesto	City of Modesto	1. Confirm noise reduction measures are included in the contract documents 2. Confirm measures are implemented during construction	1. Design 2. Construction	1._____ 2._____
Public Services and Utilities						
PUB-4: Temporary disruption of utilities or services due to construction-related activities	<p>PUB-4: Coordinate Relocation and Interruptions of Service with Utility Providers during Construction: The construction contractor shall be required to verify the nature and location of underground utilities before the start of any construction that would require excavation. The contractor shall be required to notify and coordinate with public and private utility providers at least 48 hours before the commencement of work adjacent to any utility. The contractor shall be required to notify the service provider in advance of service interruptions to allow the service provider sufficient time to notify customers. The contractor shall be required to coordinate timing of interruptions with the service providers to minimize the frequency and duration of interruptions.</p>	City of Modesto	City of Modesto	1. Confirm noise utility measures are included in the contract documents 2. Confirm utilities are located 3. Confirm contractor coordination with utility providers.	1. Design 2. Pre-construction 3. Construction	1._____ 2._____ 3._____

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Transportation						
TR-1: Temporary Lane and Road Closures and Potential for LOS Degradation TR-2: Potential Impacts on Public Transit, Bicycle, and Pedestrian Uses of Affected Roadways TR-3: Interference with Emergency Access and Circulation TR-4: Impacts to Traffic and Circulation from Trip Generation TR-5: Damage to Driveways from Open Trench Excavation	<p>TR-1: Implement a Construction Management Plan to Minimize Interference with Traffic and Emergency Response Hazards: The Partner Agencies (DPWD, the City of Modesto, and the City of Turlock) or the construction contractor, in consultation with the County, will prepare and implement a Traffic Management Plan (TMP). The Partner Agencies will be responsible for ensuring that the plan is adequately developed and implemented. The Partner Agencies will provide the TMP to the Stanislaus County Department of Public Works and Caltrans. The TMP will include recommended traffic-control and traffic-reduction measures as identified in the Transportation Management Plan Guidelines issued by the Division of Traffic Operations Office of System Management Operations (Caltrans 2009). The Partner Agencies will require all traffic-control or traffic-reduction measures described in the TMP to be implemented. In addition, to the extent feasible, construction-related traffic and any temporary road closures shall be scheduled during non-peak traffic periods.</p> <p>The measures included in the TMP shall be consistent with any applicable guidelines outlined in the Standard Specifications for Public Works Construction, the U.S. Department of Transportation’s Manual on Uniform Traffic Control Devices, and the Work Area Traffic Control Handbook. The plan will include the following items:</p> <ul style="list-style-type: none">• Definition of location and timing of any temporary lane or roadway closures;• Identification and provision for circumstances requiring the use of temporary traffic control measures, such as flag persons, warning signs, lights, barricades, and cones to provide safe work areas in the vicinity of the project site or along the haul routes, including for narrow roadway segments, and to warn, control, protect, and expedite vehicular, bicycle, and pedestrian traffic and access by emergency responders;• Implementation of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak-hour traffic, placement of detour signs (if required), lane closure procedures (if required), flaggers (if required), placement of cones for drivers, and designated construction access routes and access points;• Notification to adjacent property owners, transit agencies and public safety personnel regarding when major deliveries, detours, and lane closures will occur;• Measures to address the potential for construction-related traffic to impede emergency response vehicles and a specific training and information program for construction workers to ensure awareness of emergency procedures for project-related accidents;• Identification of haul routes for movement of construction vehicles that will minimize impacts on vehicular and pedestrian traffic and circulation and safety, and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the Partner Agencies in coordination with the construction contractor;• Consideration of other projects in the vicinity that could also affect the same roadways as the project;• Development of a process for responding to and tracking complaints pertaining to construction activity, including identification of an onsite complaint manager; and• Documentation of road pavement conditions for all routes that would be used by construction vehicles both before and after project construction. Roads damaged by construction vehicles will be repaired to the level at which they existed before project construction.	City of Modesto	City of Modesto, Stanislaus County Department of Public Works, Caltrans	1. Confirm requirement for TMP is included in the contract documents 2. Review and approve TMP, and confirm submittal to Stanislaus County Department of Public Works and Caltrans 3. Confirm measures are implemented during construction	1. Design 2. Pre-construction 3. Construction	1._____ 2._____ 3._____
TR-5: Damage to Driveways from Open Trench Excavation BIO-17: Effects on movement of fish and wildlife and use of breeding sites	<p>TR-2: Install Temporary Trench Plates Over Open Trenches: During construction of the pipeline, temporary trench plates will be installed over open trenches at the end of each work day.</p>	City of Modesto	City of Modesto	1. Confirm requirement for temporary trench plating is included in the contract documents 2. Confirm plating is installed at the end of each work day.	1. Design 2.. Construction	1._____ 2._____

Agency Abbreviations: CDFW=California Department of Fish and Wildlife, NAHC=Native American Heritage Commission, NMFS=National Marine Fisheries Services, SJCVPD=San Joaquin Valley Air Pollution Control District, USFWS=U.S. Fish and Wildlife Services, USACE=U.S. Army Corps of Engineers