

TABLE 7-1

MITIGATION MEASURES, MITIGATION MONITORING AND REPORTING PLAN FOR
AMADOR WATER AGENCY GRAVITY SUPPLY PIPELINE PROJECT

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
4. Biological Resources					
<p>4a, b - The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, special status species or any riparian habitat or other sensitive natural community as identified in local or regional plans, policies, or regulations, or by State or federal agencies.</p>	<p>BIO 1 If the survey results for the spring 2008 plant surveys expire prior to construction of the proposed project, Amador Water Agency shall retain a qualified biologist to conduct a focused special-status plant survey during the appropriate blooming period for Pleasant Valley mariposa-lily, Yellow-lip pansy monkeyflower, and other special-status plants known for the region. If no special-status plants are found, then no further mitigation would be required.</p> <p>If Pleasant Valley mariposa-lily and Yellow-lip pansy monkeyflower, or other special-status plants are found, then Amador Water Agency or their representative shall contact CDFG prior to disturbance of the area to discuss their strategy for preventing the loss of these populations. Methods may include realigning the pipeline to avoid the plant populations, transplanting the plants to a nearby suitable area, or salvage of seed or plant materials for use in offsite restoration. This measure will mitigate potential impacts on special-status plants through ensuring that individual plants or local populations are either avoided or preserved offsite.</p>	<p>BIO 1, 2: Retain a qualified biologist to conduct a focused special-status plants and wildlife survey during the appropriate blooming, mating or nesting periods.</p>	<p>Project Applicant</p>	<p>During construction activities, primarily trenching and excavation. (2010).</p>	<p>Project Applicant; Qualified Biologist/botanist;</p>
	<p>BIO 2 Amador Water Agency Prior to construction, the Amador Water Agency shall retain a qualified biologist to conduct an amphibian survey for foothill yellow-legged frogs of the construction site following protocols approved by the DFG. The survey should be designed for seasonally appropriate identification of foothill yellow-legged frog life stages, including adult number, oviposition sites, tadpole rearing areas, and juveniles. If frogs are found during the pre-construction survey or during construction activities, then further mitigation is required.</p>				
	<p>If foothill yellow-legged frogs are found, then Amador Water Agency or their representative shall contact CDFG prior to disturbance of the area to discuss their strategy for preventing the loss of individuals of this species. Since disturbance in the bed of the creeks where this species may occur will be temporary, and</p>				

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	<p>limited to the duration of construction, it is likely that CDFG will require only that any foothill yellow-legged frogs found in the area be moved to nearby suitable habitat, out of harms way, and to provide a biological monitor during construction in the creek beds to prevent any foothill yellow-legged frogs from moving into the disturbance zone during construction. Other possible measures may include seasonally timed work in the stream channels, implementation of best management practices (BMPs) to ensure the stream's water quality does not degrade, and restoration of the stream bed to as close to its original state as possible. These measures will mitigate potential impacts to foothill yellow-legged frog through ensuring that individual frogs are not harmed during construction, and that habitat is restored to pre-construction conditions.</p>				
	<p>BIO 3 Conserve oak woodlands through the use of replanting.</p> <p>(a) Wherever feasible, avoid removal of, or damage to, the root zone of native oaks along the project alignment, particularly those oaks with a diameter at breast height (dbh) of six inches or greater.</p>	<p>BIO 3: Avoid and/or minimize damage of native oaks. Replant appropriate number of oaks, maintenance includes replacement of dead and diseased plantings.</p>	<p>Project Applicant</p>	<p>During construction activities, primarily trenching and excavation. (2010).</p>	<p>Project Applicant; Qualified Biologist/botanist;</p>
	<p>(b) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.</p> <p>(c) The requirement to maintain trees pursuant to this mitigation measure terminates three years¹ after the trees are planted.</p>				
	<p>BIO 4 The project shall be designed to avoid disturbance to riparian habitat and the drainages that support the habitat to the extent feasible. CDFG recommends a minimum 100-foot buffers from edge of riparian vegetation; however, smaller buffers can be allowed on a case by case basis. Mitigation measures to address impacts to riparian vegetation shall be</p>	<p>BIO 4: Avoid and/or minimize disturbance to riparian areas and drainages that support habitat. If disturbance is unavoidable the project</p>	<p>Project Applicant</p>	<p>During construction activities, primarily trenching and excavation. (2010).</p>	<p>Project Applicant; Qualified Biologist/botanist;</p>

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	<p>determined as part of the CWA Section 404 and/or the CDFG Section 1600-1616 Streambed Alteration Agreement required under mitigation measure BIO 5. These mitigation measures, may include seasonally timed construction, implementation of BMPs, and restoration of disturbed areas after construction. These measures will mitigate impacts on sensitive habitats through avoidance where possible, minimization of construction disturbance, and replacement of habitat that was removed during construction.</p>	<p>applicant shall retain a CDFG Section 1600-1616 Streambed Alteration Agreement. Other mitigations apply, e.g. dry season construction, implement BMPs, post-construction restoration</p>			
<p>4c - The proposed project through direct removal, filling, hydrological interruption could have a substantial adverse effect on federally protected wetlands.</p>	<p>BIO 5</p> <p>(a) Prior to any construction activities on the site, a protective fence shall be installed a minimum of one foot (or greater, if feasible) from the edge of all wetland habitat to be avoided in the immediate vicinity of the proposed construction areas. Prior to initiation of construction activities, a qualified biologist shall inspect the protective fencing to ensure that all wetland features have been appropriately protected. No encroachment into fenced areas shall be permitted during construction and the fence shall remain in place until all construction activities have been completed.</p> <p>(b) In addition, the final project design shall not cause significant changes to the pre-project hydrology, water quality, or water quantity in any wetland that is to be retained on site. This shall be accomplished by avoiding or repairing any disturbance to the hydrologic conditions supporting these wetlands.</p>	<p>BIO 5: Avoid all wetlands and waters of the U.S. Establish buffers around wetted features. Restore disturbed areas to pre-construction conditions.</p>	<p>Project Applicant</p>	<p>During construction activities, primarily trenching and excavation. (2010).</p>	<p>Project Applicant; Qualified Biologist or applicant's agent.</p>

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<p>4d - The proposed project through construction activities could interfere substantially with the movement or migration through a migratory corridor of any native resident, migratory fish or wildlife species or impede the use of wildlife nursery sites.</p>	<p>BIO 6 Prior to construction, the Amador Water Agency shall conduct a survey of the pipeline route for nesting raptors. The survey shall be conducted by qualified biologists during the appropriate time of year and follow a survey protocol approved by the DFG.</p> <p>If a raptor nest is discovered on or adjacent to the pipeline route then the project proponent shall establish a 1/4 mile temporary disturbance buffer around the nest until the project proponent has consulted with DFG and established measures that avoid or minimize disturbance to the nest. At a minimum, these measures will include a buffer area sufficient to avoid disturbance to the nest and a full time biological monitor with stop-work authority.</p> <p>Avoid Trees During Nesting Season. If it is not feasible to avoid the nesting period, a survey for nesting birds shall be conducted by a qualified wildlife biologist no earlier than 14 days prior to the proposed removal of trees or shrubs, or before other construction activity that could potentially disturb nesting birds in nearby trees or shrubs (i.e., within 50 feet of trees or shrubs). Survey results shall be valid for 21 days following the survey. The area surveyed shall include all construction areas within 50 feet of the project alignment.</p>	<p>BIO 6: Retain a qualified biologist to conduct a survey for nesting birds during the seasonal nesting periods. Protect birds as appropriate.</p>	<p>Project Applicant</p>	<p>During construction activities, primarily trenching and excavation. (2010).</p>	<p>Project Applicant; Qualified Biologist.</p>
	<p>Protect Birds in the Event of Nest Discovery. In the event that an active nest is discovered in the areas to be cleared, or in trees or shrubs within 50 feet of construction boundaries, the Amador Water Agency shall delay construction in the vicinity of active nest sites during the breeding season (February 1 through August 31) while the nest is occupied with adults and/or young. A qualified biologist shall monitor any occupied nest to determine when the nest is no longer used. If the construction cannot be delayed, avoidance measures shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone shall be determined by the qualified biologist, but shall be a minimum of 100 feet. The buffer zone shall be delineated with highly visible temporary construction fencing.</p>				

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	<p>These measures will mitigate potential impacts to nesting raptors and other migratory birds through avoidance of construction, or ensuring that active nests are identified prior to construction and protected from disturbance through the project completion.</p>				
5. Cultural Resources					
<p>5b-5d – The proposed project could cause a substantial adverse change in the significance of an archaeological resource; the proposed project could directly or indirectly destroy a unique paleontological resource or unique geologic feature; the proposed project could disturb human remains, including those interred outside of formal cemeteries.</p>	<p>CUL 1 (a) The applicant shall hire a qualified archaeologist with availability to monitor as needed all project-related ground-disturbing activities in open, undeveloped areas. If cultural resources are encountered the archaeologist shall have authority to halt all project-related ground-disturbing activity within 100 feet of the find; earth-moving activities may continue in other areas. The archaeologist shall determine the significance of the find and decide if further investigation is necessary, which may include subsurface testing. Any plans for investigation shall be submitted to Agency for approval. Results of investigations shall be reported in a memorandum or technical report and submitted to Agency for approval.</p>	<p>Instruct contractors on archeological or paleontological indicators; in case of discovery, cease work and retain qualified paleontologist.</p>	<p>Project Applicant</p>	<p>During construction activities, primarily trenching and excavation. (2009).</p>	<p>Registered Professional Archeologist; County of Amador Coroner.</p>
	<p>(b) If evidence of an archaeological site or other suspected historical resource as defined by CEQA Guidelines Section 15064.5, including darkened soil representing past human activity (“midden”), that could conceal material remains (e.g., worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials) are discovered during project-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and Agency shall be notified. Agency shall hire a qualified archaeologist to assess the significance of the find. Impacts to any significant resources shall be mitigated to a less-than-significant level through data recovery or other methods determined adequate by the archaeologist and that are consistent with the Secretary of the Interior’s Standards for Archaeological Documentation. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-</p>				

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	L) form and filed with the appropriate Information Center.				
	<p>CUL 2 If any paleontological resources or suspected paleontological resources, such as vertebrate, plant, or invertebrate fossils, are encountered during any construction activities, work shall be suspended within 50 feet of the find. The Agency shall be notified immediately of the discovery, and the Agency shall retain the services of a certified paleontologist to evaluate the find and provide recommendations to the Agency for treatment of any significant paleontological resources. Should avoidance of any significant paleontological resource be determined infeasible, other measures (such as data and sample recovery) shall be implemented. Work may proceed on portions of the project site at least 50-feet from the discovered resource while mitigation of impacts on paleontological resources is implemented. The project proponent shall implement approved mitigation, to be verified by the Agency.</p>	<p>Instruct contractors on archeological or paleontological indicators; in case of discovery, cease work and retain qualified paleontologist.</p>	<p>Project Applicant</p>	<p>During construction activities, primarily trenching and excavation. (2009).</p>	<p>Registered Professional Archeologist; County of Amador Coroner.</p>
	<p>CUL 3 If human remains (including disarticulated or cremated remains) are discovered at any project construction sites during any phase of construction, all ground-disturbing activity within 100 feet of the resource shall be halted and Agency and the County coroner shall be notified immediately, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project Applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. Agency shall be responsible for approval of recommended mitigation as it deems</p>	<p>Instruct contractors on archeological or paleontological indicators; in case of discovery, cease work and retain qualified paleontologist.</p>	<p>Project Applicant</p>	<p>During construction activities, primarily trenching and excavation. (2009).</p>	<p>Registered Professional Archeologist; County of Amador Coroner.</p>

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	appropriate, taking account of the provisions of State law, as set forth in CEQA Guidelines Section 15064.5(e) and Public Resources Code Section 5097.98. The project contractor shall implement approved mitigation measure(s), to be verified by Agency, before resuming ground-disturbing activities within 100 feet of where the remains were discovered.				
6. Geology and Soils					
6a, iv, c. -The proposed project could expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving, landslides or located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse	GEO 1 (a) Prior to project construction, the Agency shall have a geotechnical engineering report produced by a California-registered civil engineer or geotechnical engineer. The report shall address and make recommendations for slope stability along the portions of the pipeline route located on slopes. (b) Excavation/slope stabilization control measures shall include, but would not be limited to, proper shoring and stabilizing methods required by the UBC.	Prepare geotechnical engineering report with slope stability analysis certified by a California-registered civil or geotechnical engineer.	Project Applicant; Contractor	Design and engineering phase prior to trenching and excavation activities	Project Applicant; Amador County
7. Hazards and Hazardous Materials					
7d - The proposed project could disturb or disrupt a hazardous materials site and, as a result create a significant hazard to the public or the environment	HAZ 1 The Agency shall ensure that contractors do not store or use combustible materials at or near welding activities that may result in fires or result in sparks from welding during the summer construction period. The Agency shall require the Contractor to develop a fire safety plan that complies with the requirements contained in the Plans and Specifications for the proposed GSP project.	Frequent field inspections during construction.	Project Applicant; Contractor	During construction activities, primarily trenching and excavation.	Project Applicant; Amador County Environmental Health Department; Amador County Fire Department
7. Noise					
11b - The proposed project could expose persons to excessive groundborne vibration or groundborne noise levels.	NOI 1 Construction activities shall adhere to the requirements of the Amador County Public Works Department and Amador County Building Department with respect to muffling of internal combustion engines and other factors, which affect construction noise generation and its effects on noise-sensitive land use. Hours of construction activity shall be limited to 7:00	Fully operational noise suppression equipment installed on internal combustion engines; Hours of construction activity 7:00 a.m. to 8:00 p.m. Monday through	Project Applicant; Contractor	During construction activities, primarily trenching and excavation.	Project Applicant; Amador County Public Works Department; Amador County Building Department

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	a.m. to 8:00 p.m. Monday through Friday, 8:00 a.m. to 7:00 p.m. on Saturdays, and no construction on Sundays and holidays.	Friday, 8:00 a.m. to 7:00 p.m. on Saturdays, No construction on Sundays and holidays.			